

Cheshire West and Chester Council

High Speed Rail (Crewe – Manchester)

HS2 Phase 2b Environmental Statement Consultation Response

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Please tell us whom the organisation or group represents and, where applicable, how you assembled the views of members. Please write in the box below, and attach additional pages if you need to.

Cheshire West and Chester Borough Council is a unitary local authority formed in 2009. This consultation response is submitted on behalf of the Council by the Director of Transport and Highways.

Cheshire West and Chester Council highly values the importance of engagement with all stakeholders including residents, businesses, other public entities and Cheshire West and Chester councillors.

Over the many years since it was announced that the proposed route of HS2 would pass through the borough, the Council has worked extensively with these and many other parties on a vast magnitude of relating themes, issues and opportunities.

Building upon this substantial foundation of engagement, the council specifically engaged with its councillors, town and parish councillors and other representative groups to have opportunities to input to the submissions of Cheshire West and Chester Council to the HS2 Phase 2b Equality Impact Assessment and Environmental Statement consultations.

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1. Introduction to Cheshire West and Chester

- 1.1.1. Cheshire West and Chester has a population of approximately 331,000 and covers 350 square miles. The borough includes the historic city of Chester and the industrial and market towns of Ellesmere Port, Frodsham, Helsby, Malpas, Neston, Northwich and Winsford. About a third of the population live in rural areas.
- 1.1.2. Winsford and Northwich are the two towns within the borough located closest to the route of HS2, having populations of approximately 34,000 and 20,000 respectively.
- 1.1.3. Winsford is the major town in the area, providing shops and services for people in the town and surrounding settlements and initially grew because of the salt industry during the 19th Century, which remains important today. Winsford is a key industrial and distribution business location with its railway station served by (electric) trains operating to Liverpool, Crewe and Birmingham.
- 1.1.4. Northwich comprises a town centre with several surrounding neighbourhoods and also has a salt industry heritage. A significant achievement in 2007 was completion of solving the town's subsidence problem by establishing one of the country's first ever land stabilisation programmes. The Baron's Quay development area of the town is a major regeneration scheme offering a significantly improved retail and leisure experience. The railway station is served by trains operating to Chester, Stockport and Manchester. A business case is currently being developed to reinstate a regular service on the existing line linking Northwich with Crewe, which would provide direct connectivity with HS2.

2. Summary of HS2 through Cheshire West and Chester

- 2.1.1. The route of the proposed HS2 scheme through the eastern area of our borough, is described in community area report and map book MA02 – Wimboldsley to Lostock Gralam. This traverses north from Walley's Green on embankment, passing Middlewich to the east, before crossing the Middlewich branch of the Shropshire Union Canal on viaduct. It continues on embankment, passing Winsford to the west and crossing the River Dane on viaduct. The route will continue north towards Lostock Gralam, alternating between embankment and viaduct to cross over Puddinglake Brook, the Trent and Mersey Canal, Gad Brook, Wade Brook, Peover Eye and Smoker Brook before continuing into the Pickmere to Agden and Hulseheath area.
- 2.1.2. In addition to the route of HS2, the Proposed Scheme also includes the Crewe North rolling stock depot, which will be provided on land between the route of the Proposed Scheme and the West Coast Main Line, north-east of Walley's Green. This operational and maintenance hub will feature 27 sidings of 400 metre length to accommodate up to 54 high speed trains. When operational, the works undertaken at this depot will be more extensive than elsewhere on the Western Leg, ranging from light cleaning to heavy duty maintenance. This depot is where most train drivers would be based and would start and end their shifts.
- 2.1.3. Construction and commissioning of the proposed scheme is expected to take place in stages between approximately 2025 and 2035 followed by track laying, systems

installation, testing and operation assumed to be from 2038. The duration, intensity, and scale of works along the route will vary over this period but will overall be substantial, disproportionate, have permanent changes to lifestyle, impose change to the character of the area, impact on economic prosperity and to the natural and built environment.

3. Summary of the main issues identified:

3.1. Cross service

- To have a commitment from HS2 Ltd. (and Department for Transport) to set up a dedicated multi-discipline working group with Cheshire West and Chester Council and other relevant parties, to fully assess the opportunities, impacts and resultant undertakings relating to the Crewe North Rolling Stock Depot.
- Significant, disproportionate, and long-lasting **detrimental impacts** on residents, communities, businesses, and public services of the HS2 construction and subsequent operation.
- Complex geological issues, extent of ground instability and of underground infrastructure.
- A need to have an improvement to the timeliness of providing responses by HS2 Ltd. to matters raised by Cheshire West and Chester Council.
- The cost of providing, monitoring and maintaining any mitigation measures needs to be fully funded from HS2 Ltd. on an ongoing basis.

3.2. Ecology & Biodiversity:

- Apart from direct loss of habitats and species, a principal concern is fragmentation and isolation caused by the line severing existing habitat links and foraging/commuting areas for protected species.

3.3. Archaeology

- Programme of field evaluation will be required to establish the significance of areas already identified as being of archaeological interest as well as sections of the proposed line which, at present, do not contain any known areas of archaeological interest.

3.4. Built Heritage Assets:

- Significant residual effects at a route-wide level (i.e. at a geographical scale greater than the community areas) reports in Volume 3 and off-route

3.5. Landscape and Visual:

- Details of mitigation proposals are currently unclear. There is no indication or supporting information on benefits to local communities on the receiving landscape or how such a legacy scheme is to be achieved. This could include the creation of a strategic and interconnected route of corridors for landscape character, climate change and biodiversity net gain.

3.6. Environmental Services:

- Impact of noise is unlikely to be entirely addressed during construction and operational phases. Need for an effective community engagement strategy to reduce complaints about noise. Temporary noise may last for a period of years which will not be acceptable in many cases. HS2 takes the view that once all mitigation measures have been utilised, external noise levels which may render enjoyment of individual gardens impossible, simply have to be seen as an unfortunate outcome of this development.
- Similarly internal noise levels that have been raised such that they above the recommended BS8233 internal levels but fall just short of the SOAEL again are just an unfortunate outcome of this development. In those locations where background noise levels are low, this effect will be considerable for residents but with apparently no compensation for their loss of amenity.
- Residents of properties unfortunate enough to suffer extremely high single event noises which just fall short of 80dB or 85dB depending on the number of related train movements, again are just an unfortunate outcome of this development with no recourse.

3.7. Education

- Impacts on Wimboldsley Community Primary School and Byley Primary School and Nursery, primarily from borrow pits A, B and D, and of the rolling stock depot on Wimboldsley school as well as of the construction and subsequent operation of services.
- To have a commitment from HS2 Ltd. (and Department for Transport) to set up a dedicated multi-discipline working group with Cheshire West and Chester Council and other relevant parties, to fully assess the findings of the specialist reports assessing impacts on Byley Primary School and Nursery and Wimboldsley Community Primary School to shape resultant undertakings by HS2 Ltd.

3.8. Highways

- Impact of the construction traffic on the Highway Network (including passenger transport services) and local communities during the construction phase. Particularly in the Lostock Green, Wimboldsley and Byley communities given the rural nature of the road network and the proposed duration of the works.
- Ensuring the expeditious movement of traffic during the construction phase and the mitigation measures implemented are robust and consider future transport growth (e.g. the Mid Cheshire Town Study outline business case) and do not have a detrimental effect on the Council's corporate vision to provide a safe and accessible Borough for residents and businesses.

4. Overarching comments of this response

4.1. Opportunities

- 4.1.1. Cheshire West and Chester Council welcomes this opportunity to comment on the High Speed Rail (Crewe – Manchester) Environmental Statement and Equality Impact Assessment. Separate submissions are made for each of these.
- 4.1.2. HS2 is a new high speed rail network that will provide the first major increase in inter-city rail capacity for over a century and release substantial capacity for rail travel on the existing network. High speed trains will serve London, Birmingham, Manchester using a combination of HS2 lines and the existing conventional rail network, operating at speeds of up to 360 kilometres per hour (225 miles per hour). It is essential that HS2 construction and subsequent operation is taken forward based upon an approach that fully complements the economic growth and connectivity development programmes of our region, the north of England and the United Kingdom.
- 4.1.3. Cheshire West and Chester Council is leading on a major project based expanding the capacity of Chester railway station to enable the station to be served by additional services including potential extension of HS2 on the existing direct line from Crewe. This is a central component of a wider regeneration programme for Chester, building upon an already established and ambitious transformational programme of this popular historic city. Increasing two-way connectivity with HS2 services is of high mutual importance.
- 4.1.4. Chester is one of the busiest stations in the North West region by passenger usage and is a substantial business and tourism destination in its own right as well as being a major hub for rail service interchange. Cheshire West and Chester Council is close to completing an initial assessment of the benefits of extending HS2 to Chester and serving the vast tourism and commercial opportunities of North Wales and the Mersey-Dee cross border areas.
- 4.1.5. Electrification of the Chester and North Wales main line to coincide with introduction of HS2 services at Crewe would enable direct, electric, high-speed services substantially building upon an established passenger demand market. This would offer a major opportunity to incentivise a transfer of travel to a highly attractive sustainable mode of travel with significant environmental benefits. These links with HS2 could be further enhanced by electrification of the existing line between Chester and Warrington, providing direct connectivity with HS2 (and Northern Powerhouse Rail) at Warrington for Manchester Piccadilly and Manchester Airport stations. The multitude of Wales cross-border benefits closely align to themes and opportunities highlighted in the Union Connectivity Review of Sir Peter Hendy.
- 4.1.6. Road based public transport including fixed route scheduled bus services and non-fixed route flexible bus services provide important opportunities for sustainable travel for the construction and operation of HS2 (the latter for staff as well as passengers). As the phases of HS2 construction will have substantial adverse impacts on traffic congestion, the HS2 scheme must provide funding to work in collaboration with the Council and operators to provide targeted services that will make meaningful reductions of car journeys. Clearly, this will have an impact on managing the carbon footprint of HS2 during construction as well as once the service is operational.

4.1.7. In addition to public transport measures, by working with the Council to enhance provision for walking and cycling, these will combine to offer attractive options for the complete end to end journeys that will be made.

4.2. Information and future review

4.2.1. Although these consultations are based upon a baseline position on when the information was compiled, as the future phased impacts of HS2 construction and operation cannot currently be fully anticipated, it is essential that commitments are given by HS2 Ltd. to ensure that all affected, will be given transparent and timely opportunities to inform and influence the scheme as it progresses using understandable and supportive formats. This includes having a clearer understanding of the order and updated timescales of when information will be provided and answers to questions given.

4.2.2. There continues to be inadequate detailed information and evidence on several critical issues of major importance. Addressing this is a fundamental requirement for Cheshire West and Chester Council to be able to assess whether the HS2 scheme has holistically considered all the impacts and mitigation options, along with committing to deliverable and proportionate measures for the borough. There are a significant number of areas of concern set out within these consultation responses.

4.2.3. On a relating theme, Cheshire West and Chester Council reiterates and repeats its demand that HS2 provides models built to scale, showing the visual and severance impacts of HS2 infrastructure on communities, including associated works such as to highways and public rights of way.

4.3. Crewe North rolling stock depot

4.3.1. Construction and subsequent operation of the Crewe North Rolling Stock Depot and associated rail infrastructure is itself, a major scheme, featuring a vast multitude of complex impacts on communities and the environment. It must also serve as a significant employment and training opportunity, and it is important to ensure that local people and businesses have access to these opportunities.

4.3.2. To maximise full and inclusive assessment of the rolling stock depot, Cheshire West and Chester Council proposes that a dedicated working group is established, with the terms of reference jointly prepared by HS2 Ltd, the Department for Transport and Cheshire West and Chester Council.

4.4. Engagement

4.4.1. Cheshire West and Chester Council urges government to urgently step-up work on multi-agency technical engagement by HS2 Ltd. with the Council, neighbouring Councils and other entities. The same commitment is also urgently needed to address the significant adverse wellbeing impacts on communities in our borough which are already experiencing these impacts. Cheshire West and Chester Council reiterates its readiness to build work on these themes with government and HS2 Ltd.

4.4.2. Although HS2 Ltd. includes use of many specialist teams, meaningful capturing & use of the knowledge and views of residents and communities urgently needs to be better embraced and for them to know what (and how) they can influence the HS2 scheme in their area. For example, HS2 will traverse areas of significant ground instability with

residents having direct knowledge and awareness of the actual history of this, which may not be so readily identifiable from more formal analysis. Additionally, only residents can have a realistic and full interpretation of how HS2 construction and operation will directly affect community life as well as the associated psychological effects on people.

- 4.4.3. Measures need to be committed by the HS2 scheme that are more inherently driven from the perspective of receptors such as communities as opposed to just from the perspective of managing a project to build this rail line. Funding to take forward opportunities to have one or more people embedded in our area to be contactable and approachable for our residents, communities and businesses urgently needs to be established, as passage of the Phase 2b Bill through its parliamentary process represents a significant stage of this major scheme. – There is already an outstanding need for HS2 Ltd. to “become a good neighbour” and overall accountability for this must remain directly with government and HS2 Ltd and be responsibly demonstrated by contractors.
- 4.4.4. There is an important and outstanding need for the cumulative assessment of impacts on residents, communities, businesses, the natural and built environments to be developed, appraised and responded to. The combined impacts on each of these are greater than that of the individual components. The distinct lack of this approach by HS2 Ltd. results in receptors of adverse impacts not being identified or fully understood.

4.5. Cross-border impacts

- 4.5.1. Cheshire West and Chester Council works extensively with other Councils, greatly valuing the benefits and efficiencies this brings to all parties. HS2 construction and subsequent operation will clearly have significant impacts that cross border with neighbouring areas and the Council needs commitments from HS2 Ltd. for its dedication to collective collaboration and information sharing as part of future working.
- 4.5.2. Schools at Wimboldsley and Byley are referred to elsewhere in this submission and are examples of schools that are directly affected and have children from the boroughs of Cheshire West and Chester as well as from Cheshire East. The site of the latter straddles the border, as does the proposed nearby borrow pit.
- 4.5.3. Cheshire West and Chester Council strongly supports the need for securing the appropriate investment in the Crewe hub station and surroundings to enable it to meet future passenger demand and act as a hub and spoke for the whole region. This will include suitable car park provision enhancements but also importance of infrastructure and service enhancements of connecting rail and bus services ensuring that these services will continue to operate reliably.
- 4.5.4. The highways network is essential for the cross border movement of people and goods with avoidance of congestion (or vehicles using unsuitable alternative routes) being essential to avoid generating major adverse environmental and air quality impacts as well as enabling equal access to services and facilities. This also relies upon commitments from HS2 Ltd to address the future additional maintenance liability (and bridge structure inspections) generated by its construction haulage routes and those subsequently used for operation of HS2 including the rolling stock depot.
- 4.5.5. It is essential that these issues and opportunities are taken forward on a cross border and multi-agency basis by HS2 Ltd. Similarly, both Cheshire West and Chester Council and

Cheshire East Council are jointly concerned about the impacts of HS2 construction on the continuity and service provision of cross boundary bus services. We note that Arriva's bus depot is located at Winsford but operates services throughout Cheshire.

4.5.6. Cheshire West and Chester Council along with Cheshire East Council are jointly concerned about the extent of adverse impacts at the following key locations:

- A530 Nantwich Road / Chapel Lane
- A556 Chester Road / A530 King Street
- A54 Middlewich Road / Road One / Clive Lane
- A556 Shurlach Road / Birches Lane
- A54 Holmes Chapel Road / A533 Leadsmithy Street, Middlewich

Cheshire West and Chester Council also shares Cheshire East Council's concern that HS2's approach to highway modelling includes the assumption that major schemes (such as Middlewich Eastern Bypass) will be delivered in advance of construction despite them yet having Final Business case approval. There needs to be an understanding of what the impacts on the road network will be if this scheme is not delivered for any reason, and any additional mitigations measures included in the bill as a backstop.

4.5.7. The final Bill must facilitate any required additional land take that may be required to ensure that any improvement schemes for public rights of way, highways or sustainable travel infrastructure can be delivered without constraints to the latest standards recommended by Active Travel England.

5. Structure of this response

5.1.1. Findings of our review of the HS2 Phase 2b Environmental Statement are provide below. These are based upon themes as opposed to separately on the Non-Technical Summary and volumes of the Community Area (CA) reports, although in some cases, these are specifically referred to. This approach helps to consolidate and improve the flow of our comments

6. Ecology & Biodiversity

6.1. Introduction and Methodology (Volume 1 - Section 8.6 Page 177)

6.1.1. The ecological impact assessment considers all ecological receptors that have the potential to be affected by the construction and/or operation of the proposed scheme. The Environmental Statement considers a wide range of effects including habitat loss and fragmentation, severance of ecological corridors and networks, noise and visual disturbance (including disturbance from lighting), barrier effects to movement of fauna, changes in water quality and quantity, air pollution, and wildlife mortality due to collision with passing trains.

6.1.2. A Habitat Regulations Assessment Screening Report and Appropriate Assessment for the Oak Mere component of the Midland Meres and Mosses Phase 2 Ramsar site and Oak Mere Special Area of Conservation (SAC) have been carried out.

- 6.1.3. Chartered Institute of Ecology and Environmental Management (CIEEM) guidance has been followed. Data has been obtained from local record centres, LBAP's and woodland inventories. Field surveys have been conducted and consulted on with Natural England.
- 6.1.4. A precautionary approach to ecological receptor valuation has been used for instances where baseline information is incomplete. This includes the assumption that construction will occur concurrently along the route and that all habitats within the construction area will be lost, even if this may not be the case in real terms. Ongoing management and monitoring of habitats will be secured within legal agreements.
- 6.1.5. In some instances, the locations of habitat creation areas have been selected to increase the size of existing higher quality habitat and to increase connectivity.
- 6.1.6. Further ecological surveys will be carried out prior to and during construction. The surveys will be used to verify the baseline ecological conditions described in the Environmental Statement, to refine the mitigation measures required during construction as appropriate, and to provide appropriate monitoring during construction on protected species and sites.
- 6.1.7. An Ecology Review Group will review the outputs of monitoring for habitat creation sites and make recommendations for remedial action where appropriate.
- 6.1.8. A timetable for surveys, monitoring and management and habitat creation should be agreed. This should include regular reporting back to the relevant local authorities.

6.2. Ecological Baseline

6.2.1. Designated Sites

- 6.2.2. The West Midland Meres and Mosses Special Area of Conservation (SAC) and Midland and Mosses Phase 2 RAMSAR Convention (A UNESCO established convention on wetlands which came into force in 1975). A Ramsar site is a wetland of international importance, located approximately 8 kilometres from site. The Oakmere and Mosses SAC specific Special Area of Conservation within CW&C and Midland and Mosses Phase 2 RAMSAR are approx. 10.5km from site. The Volume 2 document seems to indicate that the Oak Mere SAC is the closest to the route, however, this is not the case as above.
- 6.2.3. The main concentration of designated sites lies along the northern and central areas and impacts on these are expected to be mitigated as close to the site of impact as possible. This should be quantified and qualified.

6.3. Sites of Special Scientific Interest (SSSI)

- 6.3.1. Six SSSI's are considered to be within the Impact Zones of the proposed scheme. The Wimboldsley Wood SSSI is approx. 25 metres from the area of impact, in the southern area of the Cheshire West and Chester borough. Part of the wood is designated as Ancient Woodland. The Plumbley Lime Beds SSSI is immediately adjacent to the northern Cheshire West and Chester Council boundary, but is within Cheshire East Council, approx. 500metres from the HS2 centreline.

6.4. Local Wildlife Sites (LWS)

- 6.4.1. 27 LWS's have been considered within the assessment. There are 15 Local Wildlife Sites within 250 metres of the HS2 centreline, five of which are designated for their ancient woodland. 11 LWS's are immediately dissected/lost by the proposed line.

6.5. Habitats

- 6.5.1. 12 sites of Ancient Woodland have been considered.
- 6.5.2. There are 54 other areas of lowland deciduous woodland that qualify or are likely to qualify as lowland mixed deciduous woodland or wet woodland, which are habitats of principal importance.
- 6.5.3. The Shropshire Union Canal (Middlewich Branch), the River Wheelock, the River Dane, the Trent and Mersey Canal, Puddinglake Brook, Wade Brook, Peover Eye and Smoker Brook will be crossed by the route of the Proposed Scheme.
- 6.5.4. There are 70 ponds located within, or partly within, the land required for the construction of the proposed scheme, and a further 232 ponds within 250 metres of the land required for the construction of the proposed scheme.
- 6.5.5. Aside from the two LWS's designated for their orchards, a further four orchards that qualify or are likely to qualify as traditional orchard were identified.
- 6.5.6. An area of reedbed, covering 0.4ha, occurs on the northern bank of the Trent and Mersey Canal within Whatcroft Lane Wetlands LWS.
- 6.5.7. An area of open mosaic habitat on previously developed land, covering 6.1ha, occurs within a former industrial site adjacent to Square Wood, north of Hame Farm.

6.6. Protected species

- 6.6.1. Great crested newt, bat and otter populations were found within the area of impact of the route, including multi-species and maternity bat roosts and a large meta population of Great Crested Newts (GCN).
- 6.6.2. Field surveys recorded 52 bird species, 29 of which are notable, within and adjacent to the land required for the construction of the proposed scheme. This included 12 Red List species and 10 species of principal importance and/or conservation priorities of the local Bio-diversity Action Plan (BAP). Barn owl, Snipe, Willow tit and Corn bunting were recorded.
- 6.6.3. White-clayed crayfish were also recorded.
- 6.6.4. Three main Badger setts are present within land required for the construction of the Proposed Scheme. A further four main Badger setts are present between 70-80m from land required for the Proposed Scheme.
- 6.6.5. There are no references to Water vole surveys.

6.7. Impacts and Mitigation: Non-Technical Summary – (Section 8.3 P.86) and Volume 2: Community Area (Wimboldsley to Lostock Gralam area (MA02) (Section 7.1 P177)

- 6.7.1. The scheme will require the demolition of 24 residential properties, four commercial properties (including farm outbuildings) and three other structures comprising two bridges and a public convenience.

6.7.2. Measures incorporated into the design to avoid or mitigate adverse impacts include:

- The use of viaducts to avoid direct effects on the Shropshire Union Canal (Middlewich Branch), the River Dane, the Trent and Mersey Canal and other watercourses and allow free passage for wildlife beneath them.
- The design of drainage associated with the Crewe North rolling stock depot to avoid impacts on the saline spring habitat at Wimboldsley Wood SSSI.
- Compensatory woodland habitat creation such as at Long Wood near Lostock Gralam and Stove Room Wood near Wimboldsley, providing habitat connectivity and enhanced landscape/green infrastructure connectivity.
- Areas of woodland, grassland and pond compensation are proposed at various points along the length, including embankment landscape planting.

6.7.3. Appropriately sized culverts and ecological underbridges will facilitate the movement of species across the route.

6.8. Designated sites

6.8.1. The impact assessment concludes there to be no likely significant effect or adverse impacts on the statutory designated sites, in terms of direct or indirect impact. Wimboldsley Wood SSSI is particularly sensitive to hydrological changes and these have been taken into consideration.

6.9. Local Wildlife Sites

6.9.1. Some of the losses expected are up to 73% of the LWS's. There is no proposal to compensate for the LWS loss in terms of designation e.g., aspirations to target conditions of habitat quality to LWS status and assessment against LWS criteria.

6.10. Protected habitats

6.10.1. Ancient woodland

6.10.2. Construction of the proposed scheme will result in the loss of 1.3ha of ancient woodland from four Ancient Woodland Inventory sites: Stanthorne Hall Farm; Bull's Wood; Winnington Wood; and Leonard's and Smoker Wood. The loss of ancient woodland is proposed to be partly compensated through a range of measures, including planting of 11.8ha of native broadleaved woodland, the translocation of ancient woodland soil with its associated seed bank where appropriate and planting native trees and shrubs. However, Ancient woodland is irreplaceable and its loss will result in a significant permanent adverse residual effect.

6.10.3. Woodland

6.10.4. 8.4ha of woodland is predicted to be lost. The loss of this woodland will have a permanent adverse effect that is significant at the county level.

6.10.5. Planting of 11.8 ha and 36.1ha of native broadleaved woodland will occur along the route. There is no assessment of woodland impact and replacement at a landscape scale.

6.10.6. **Grassland**

6.10.7. 1.7ha of grassland is predicted to be lost. The loss of this grassland will result in a permanent adverse effect that is significant at the county level. 10.2ha of grassland are proposed to be created.

6.10.8. **Orchard**

6.10.9. Construction on the Proposed Scheme will result in the loss of orchard habitat from Bostock Road Orchards Local Wildlife Site and Pear Tree Farm. 0.28ha of orchard will be lost. This will result in a permanent adverse effect that will be significant at the county level. There is no mitigation/compensation proposed specifically for orchard habitats.

6.10.10. **Hedgerow**

6.10.11. On a precautionary basis, it is assumed that there will be a net loss of 56.9km (35.4 miles) of hedgerow, after a total of 32km of new hedgerows will be planted. This will result in a permanent adverse residual effect. The combined loss and severance of hedgerows within the land required for the construction of the proposed scheme will have a permanent adverse effect that is significant at county level.

6.10.12. **Ponds**

6.10.13. 63 of the 70 ponds are assumed to be permanently lost. The loss of ponds within the land required for the construction of the proposed scheme will lead to a permanent adverse effect on the conservation status of water bodies that will be significant, in each case, at up to district/borough level. At least one pond will be created for every pond lost within the land required for the construction. However, there is no assessment of locations of ponds within the local pond network on a landscape scale, and this is required.

6.10.14. **Watercourses**

6.10.15. The main watercourses are avoided in the majority and are not significantly affected directly, however severance and realignment of smaller watercourse means that the habitat loss and reduction in connectivity will result in a permanent adverse effect that is significant at up to district/borough level. Mitigation includes re-naturalising new channels, but there is no assessment of quantity or quality of the mitigation.

6.10.16. **Reedbeds**

6.10.17. 0.3ha of reedbed will be lost. Its loss will result in a permanent adverse effect that will be significant at the county level. 1.4ha of wetland habitat creation will take place nearby the area of loss, thereby reducing the impact to insignificant levels.

6.10.18. **Open Mosaic habitats**

6.10.19. 1.5ha of Open mosaic habitat will be lost. The loss of this habitat will result in an adverse effect that will be significant at up to county level. It is stated that following restoration of existing habitats after completion of utilities diversions, the adverse effect on open mosaic habitat will be reduced to a level that is not significant, however there is no detail of this in terms of quantity.

6.10.20. A full table of losses and gains by habitat type and condition should be provided.

6.11. Protected species

6.11.1. Bats

6.11.2. Section 7.4.56 of Volume 2 states that the impact of disturbance on bat populations will generally be localised and limited to the period of construction. However, the evidence to support this is not provided. It is stated that the construction of the proposed scheme will affect two distinct bat assemblages, due to loss of 7 non-breeding soprano pipistrelle and Brown long-eared bat roosts and one maternity soprano pipistrelle roost and fragmentation of habitats that provide links between woodlands.

6.11.3. Replacement artificial roosts are proposed near to locations in which they are lost and habitat creation of varying types is proposed to improve connectivity in these locations. Lighting measures are proposed to reduce lighting impact, specifically in the Crewe North Rolling Stock Depot. Following implementation of these measures, it is stated that the effects on the bat assemblage between Stanthorne and Rudheath will be reduced to a level that is not significant. However, the evidence of impact at a landscape scale, in terms of Bat commuting and foraging has not been provided.

6.11.4. Great Crested Newts

6.11.5. There are five populations and 11 meta-populations of great crested newt, each of which are either moderate, or assumed to be moderate in size, where habitat loss resulting from the construction of the proposed scheme will result in significant adverse effects at up to the county level in each case. There are also three small populations of great crested newt where habitat loss resulting from the construction of the proposed scheme will result in significant adverse effects at the district/borough level. It is stated that habitat creation proposals will be reduced impact to a level that is not significant. This is not addressed at the meta-population level. It is also stated that if subsequent surveys find GCN to be absent, then mitigation will be reassessed. It is suggested that due to high level impacts, the assumption of worst-case scenario should be adhered to.

6.11.6. Otter

6.11.7. Loss of two active and five potential Otter holts will occur. This will result in a permanent adverse effect on the conservation status of each of these otter populations which will be significant at the district/borough level in each case. It is stated that replacement holts will be created within the wetland habitat creation areas adjacent to these brooks to replace those that will be lost. This will reduce the adverse effects on these otter populations to a level that is not significant. Connectivity does not seem to have been addressed in this impact assessment.

6.11.8. Barn owl

6.11.9. Three pairs of breeding Barn owl will be impacted due to the permanent loss of Barn owl foraging habitat, which will be significant at county/metropolitan level. It is stated that once the habitats have become established, the adverse effect on barn owl populations resulting from the loss of foraging habitat and potential nesting sites will be reduced to a level that is not significant. However, there is no timescale provided that details how long these habitats will take to reach a standard that provides such habitats and this

should be addressed further. A Barn Owl Mitigation Plan is proposed, to identify the measures that can be implemented to help offset the effects on barn owls. It is stated that provision of additional nest boxes would be likely to increase numbers of barn owls within the wider landscape and thus offset the adverse effect.

6.11.10. Badgers

6.11.11. Three main setts are present within land required for the construction of the Proposed Scheme. A further four main setts are present between 70-80m from land required for the Proposed Scheme. It is stated that there will be no significant effects on badger populations in this area. However, there is no evidence to reach this conclusion, in terms of sett locations and other evidence. As a species, Badgers are heavily dependent on good habitat connectivity, so impact could be significant and this requires reassessment.

6.12. Cumulative effects with other approved development

6.12.1. The operation of the proposed development 'Middlewich Eastern Bypass', expected from 2021 onwards, is anticipated to result in an adverse impact on barn owl as a result of collision risk during operation. Operation of the proposed scheme, expected from 2038, is also anticipated to result in a negative impact on barn owl in these locations due to the risk of train collision. The consecutive nature of these impacts is likely to result in an increase in mortality of barn owl over time, leading to an overall reduction in breeding success for these pairs until mitigation for both schemes is established. The cumulative effect of the Proposed Scheme and committed development will therefore result in a significant adverse effect on barn owl at Wimboldsley and north-west of Middlewich.

6.12.2. Ecological networks have not been taken into consideration and this undertaking must be made.

6.13. Residual effects

6.13.1. These include impact on ancient woodland, hedgerows, orchards, veteran trees, Bats and Barn owls. The evidence to reduce impact on Bats to an insignificant level has not been provided.

6.14. Summary of comments

6.14.1. Residual impacts listed include loss of:

- 1.3ha of ancient woodland
- 56.9km of hedgerow
- 0.28ha of orchard
- impact on Bats during operation
- impact on Barn owls

6.14.2. Barn owls

6.14.3. There are only aspirations to work with landowners to erect Barn owl boxes, rather than a secured mitigation proposal. There is no timescale provided that details how long the proposed foraging habitats will take to reach a standard that provides a function for Barn owl and this should be addressed further. It is stated that a nest box scheme will increase

Barn owl numbers to offset impact, however, the main impact of the scheme is loss of foraging habitats and severance of habitat links.

6.14.4. **Bats**

6.14.5. There has been no detailed evidence provided to accurately assess the impact on Bat populations and impact on roosts that are not directly lost, in terms of loss and severance of foraging/commuting routes. This could have a significant impact on Bat populations.

6.15. **Other comments**

- The West Midland Meres and Mosses SAC and Midland and Mosses Phase 2 RAMSAR are approx. 8 kilometres from site and do not seem to have been taken into consideration.
- There is no proposal to compensate for the LWS loss in terms of designation e.g. target conditions of habitat quality to LWS status and assessment against LWS criteria.
- Impacts on habitats are expected to be mitigated as close to the site of impact as possible. This should be demonstrated.
- There is no assessment of woodland and pond loss at a landscape scale.
- The loss and mitigation of Open mosaic habitat and smaller watercourses has not been quantified.
- A table of losses and gains by habitat type and condition should be provided to enable full assessment of loss and impact.
- GCN, Otter and Badger impacts are not addressed at the meta-population/landscape level, in terms of habitat linkages, which are essential for the sustainability of these populations.
- Ecological networks have not been taken into consideration and these should be used to assess impact and inform location of mitigation areas.
- There are no references to Water vole surveys.
- A timetable for surveys, monitoring and management and habitat creation should be agreed. This should include regular reporting back to the relevant local authorities.

7. **Historic Environment**

7.1. **Archaeology**

7.1.1. The Environmental Statement contains a mass of detail concerning the current understanding of the effect of the construction of HS2 on known and potential areas of archaeological significance. In brief, this information may be found at a number of locations within the Environmental Statement. In particular, Volume 2 comprises a series of Community Area reports which consider the effect of the development on each discrete area through which the rail line will pass. Within each of these reports, the effect of the

development on the historic environment, as it is currently understood, is presented in Chapter 9. This section draws on all of the usual sources of information which would be used to compile a desk-based assessment, including data held in the Cheshire Historic Environment Record and an examination of other sources of information including aerial photographs, historic maps, and Lidar data.

- 7.1.2. The reports recognise that these sources will not provide a comprehensive picture of the archaeological potential of areas affected by the scheme, and it is confirmed that a programme of field evaluation will be required in order to establish the significance of areas already identified as being of archaeological interest as well as sections of the proposed line which, at present, do not contain any known areas of archaeological interest.
- 7.1.3. To this end, it is confirmed that a programme of geophysical survey is currently underway in order to define in more detail those areas that may require further evaluation and mitigation. Where available, the results of the geophysical survey are summarised but, as this is work in progress, the data set will grow. In addition, a full picture of the archaeological significance of locations within the scheme is likely to require the use of other evaluation techniques such as fieldwalking, and trial trenching. The latter, which involve intrusive works, may not be possible until HS2 are able to secure access to individual parcels of land.
- 7.1.4. All currently known features mentioned in the reports are included in a site gazetteer and are depicted in the map books which accompany each Community Area report. The individual maps differentiate between designated sites (Scheduled Monuments, Listed Buildings, Registered Parks and Gardens) and non-designated sites as well as showing sites which have been subject to geo-physical survey. The gazetteer and map books, together with reports on the Historic Landscape Characterisation of each Community Area are contained in Volume 5 of the ES.
- 7.1.5. The reports in Volume 2 are based on a series of much more detailed reports which have been submitted in support of the Environmental Statement but do not form a formal part of this submission. These include detailed historic environment desk-based assessments for each of the Community Areas, on which the summary reports in Volume 2 of the Environmental Statement are based. Also included are reports on the field survey work carried out to date (geo-physical work) and the remote sensing (Lidar and aerial photographs).
- 7.1.6. At this point it can be confirmed that, with regard to archaeology, the situation has already begun to develop beyond that outlined in the Environmental Statement. From a Cheshire and Warrington perspective the Archaeology Planning Advisory Service (APAS) is currently contributing to the development of a research strategy for HS2 Phase 2b (Historic Environment Research Design Strategy or HERDS) which will guide the design and implementation of the archaeological mitigation strategy. Thus, over the summer APAS attended a number of period-specific on-line research seminars which were designed to contribute to the development and refinements of the HERDS.
- 7.1.7. APAS also provided written comments on particular topics and themes which are considered particularly relevant to the archaeology of the region. For example, APAS has highlighted the ephemeral nature of the archaeological remains in many parts of the region and has emphasised that trial trenching may very well be required in areas which, on

grounds of topography, appear to have archaeological potential. This is likely to be the case even where geo-physical survey has not produced convincing evidence of archaeological remains.

- 7.1.8. APAS has also emphasised the importance of examining township and parish boundaries, the potential of areas of peat to provide information on past environments, and the interest surrounding the sites of buildings depicted on the tithe which have now disappeared. All of these suggestions have been positively received and it is hoped that these recommendations will form part of the developed mitigation strategy, as has proved to be the case with regard to HS2 Phase 2a in the Cheshire East Council area.
- 7.1.9. It may also be noted that since the time of the 2021 seminars, a heritage sub-group has been established which will meet on a regular basis. This will allow relevant parties to be briefed on the progress of the ongoing programme of evaluation work (see above), permit them to offer comments on the significance of the results, and in due course influence the detailed implementation of the programme of mitigation that will precede the construction of HS2 Phase 2b.
- 7.1.10. In summary, it is considered that the baseline information contained in the Environmental Statement and the procedures which have been put in place to consider and refine the development and implementation of the archaeological mitigation strategy are appropriate. However, Cheshire West and Chester Council also reiterates the importance of ongoing engagement and information from HS2 Ltd. as soon as this becomes available, to continually take forward this mitigation strategy. The implementation of this strategy should facilitate the success of a strategy whose ultimate purpose is summarised in Paragraph 7.10 of the Non-Technical Summary and which states:
- 7.1.11. *Mitigation of the effects of the Proposed Scheme will include a programme of historic environment investigation, recording, analysing, reporting and archiving affected assets guided by an historic environment research and delivery strategy.*
- 7.1.12. Please note that the historic environment element of the Environmental Statement also contains a detailed consideration of the historic built environment. APAS has not commented on this aspect of the report as responsibility for this area of the historic environment lies with the authority's conservation officers. It should also be noted that APAS has received an HS2 Phase 2b Environmental Statement consultation for the other local authorities to whom APAS provides archaeological advice (Warrington Borough Council and Cheshire East Council). A modified version of these comments, taking account of particular areas of interest in their areas, will be supplied to these two bodies in due course.

7.2. Built Heritage Assets

- 7.2.1. The HS2 Phase 2b (Crewe – Manchester) Environmental Statement contains a wide range of information in relation to the historic built environment and the identified impacts of the construction of HS2 Phase 2b on the significance of designated heritage assets within the identified study area. Volume 2 of the Environmental Statement comprises of a series of Community Area reports identifying each designated heritage asset within scope and considers the effect of the development within each area through which the proposed rail line will pass.

- 7.2.2. Within each Community Area report the impact upon the historic environment, is addressed in Chapter 9 which describes a baseline of conditions for heritage assets and the identified impacts and likely significant effects resulting from the construction and operation of the proposed scheme within each area. Consideration is given to the extent and value of heritage assets including grade I, II, and II* listed buildings and conservation areas, along with non- designated heritage assets. The information included within this chapter draws on the usual sources of information typically used to compile a desk-based study, including engagement with Historic England and data held in the Cheshire Historic Environment Record and examination of information including aerial photography and historic maps.
- 7.2.3. Alongside this desk- based study, a walkover and site reconnaissance from areas of public access or in locations where site access was granted, have been conducted; but it is assumed this has not been the case for all sites and identified assets, as some may not be accessible and permission for access not obtained. As a result, this has provided a relevant baseline of information to inform the design development and assessment of the proposed scheme, including a better understanding of the character of historic landscapes, along with the condition and setting of known heritage assets along with those assets that may have previously been unknown.
- 7.2.4. All heritage assets identified in the reports are accompanied by a site gazetteer and map book for each of the Community areas. The selection of maps includes an in-depth key in order to identify and differentiate between the designated heritage assets and non-designated assets and along with the gazetteer are located in Volume 5 of the Environmental Statement. This section also includes a series of Impact Assessment tables following on from the summary gazetteer. These Impact Assessment tables include the map reference for each heritage asset, along with asset name (as identified in its Historic England (HE) listing), designation and grade, heritage value (low to high), the assessed temporary impacts, assessed permanent impacts and finally the effect of the impacts identified. The reports in Volume 2 are based on a series of much more detailed reports which have been submitted in support of the Environmental Statement but do not form a formal part of this submission. They include detailed historic environment desk-based assessments for each of the Community Areas, on which the summary reports in Volume 2 of the Environmental Statement are based.
- 7.2.5. The Trent and Mersey Canal Conservation Area Appraisal makes note of the ambience of the varying sections of the conservation area as making a positive contribution towards the overall significance of the designated assets.

'The ambience changes in relation to the character of the different sections along the canal, with hissing pipes and other noises adding to the industrial character of the chemical works at Lostock. Before Broken Cross with the wind from the west, it is possible to sense the aroma of hot bread from Robert's Bakery'

- 7.2.6. The introduction of noise and machinery in relation to the construction of the River Dane, Puddinglake Brook and Trent and Mersey Canal viaducts would adversely impact the heritage value of the conservation area as it would inhibit the user from experiencing the changes in ambience along the canal corridor.

- 7.2.7. The Conservation Area Appraisal comments on the linear character of the canal resulting in views within the conservation area being '*restricted to terminal views or bridges, tunnel ends and buildings adjacent to the canal*'. Therefore, it is agreed that any impact on the immediate setting of the conservation area would have a moderately adverse effect.
- 7.2.8. The Conservation Area Appraisal notes that the '*open character and generally elevated location provides almost continuous attractive views outwards*'. With exceptional views being noted as those of the churches of Davenham, Great Budworth and Weaverham. The addition of the River Dane viaduct, Puddinglake Brook viaduct and the Trent and Mersey viaduct into the conservation area would interrupt both long and short established views, and the inclusion of such modern infrastructure would adversely impact the heritage value of the conservation area. The presence of such dominating infrastructure would also have an adverse effect on the legibility of the conservation area and its historical and evidential value. Consequently, as stated in the Environmental Statement these structures would cause significant adverse harm on the Conservation Area.
- 7.2.9. In line with Local Plan (Part One) policy ENV 5, development within or affecting the setting of conservation areas, as identified on the policies map, will be expected to pay special attention to the desirability of preserving or enhancing the character or appearance of that area, taking account of the significance of heritage assets.
- 7.2.10. Where applicable, development proposals should take into consideration:
1. topography, landscape setting and natural features
 2. existing townscapes, local landmarks, views and skylines
 3. the architecture of surrounding buildings
 4. the quality and nature of materials, both traditional and modern
 5. the established layout and spatial character of building plots, the existing alignments and widths of historic routes and street hierarchy (where physically and historically evident)
 6. the contribution that open areas make to the special character and appearance of the conservation area
 7. the scale, height, bulk and massing of adjacent townscape
 8. architectural, historical and archaeological features and their settings
 9. the need to retain historic boundary and surface treatments
 10. the local dominant building materials, the building typology that best reflects the special character and appearance of the area and features and detailing
 11. minimising and mitigating the loss of hedgerows, trees and other landscape features
- 7.2.11. The proposed additions to the Trent and Mersey Canal Conservation Area, are incongruous with the existing views and skylines, and have a negative impact on the

contribution of open areas on the special character and appearance of the conservation area. There doesn't appear to be any clear measures for mitigation in this respect.

- 7.2.12. Previous comments from Cheshire West and Chester Council submitted in 2017 as part of a scoping exercise included comments on the design parameters and that it *'should be agreed where the temporary and permanent setting of assets are clearly affected by the impact of the proposed HS2. Indigenous building materials should be assessed and agreed as part of that, and building / structure heights, mass, scale and bulk in relation to impact on key views needs to be addressed'*.
- 7.2.13. It is considered that the baseline information contained in the Environmental Statement presents the likely significant environmental effects for each community area, with further details presented in the technical appendices in Volume 5. The Non-Technical Summary also gives a summary of the likely significant residual effects at a route-wide level (i.e. at a geographical scale greater than the community areas) reports in Volume 3 and off-route (i.e. at locations beyond the HS2 Phase 2b Crewe – Manchester route corridor and its associated local environment) reported in Volume 4.

8. Landscape & visual

- 8.1.1. The Landscape and visual Impact Assessment (LVIA) includes the Cheshire West and Chester Landscape Character Areas (taken for the Cheshire West and Chester Council Landscape Strategy 2016) which have been sub-divided into local character areas.
- 8.1.2. The Landscape Character Areas affected by the development are the Cheshire Plain East (LCA 10 - LCA 10b: Stublach Plain, LCA 10c: Lostock Plain, LCA 10d: Wimboldsley and Sproston Plain,) LCT 15 River Valleys (15e Dane Valley) and also LCT Salt Heritage (14a Northwich Salt Heritage Landscape.)
- 8.1.3. The document provides several viewpoints which includes a number of photomontages for which the impacts are illustrated - in particular the impacts on the elevated sections such as the embankments and the viaducts. Although the photomontages and supporting documentation is welcomed, there are still many questions and uncertainties that remain. There is an understanding that the proposed railway line will achieve a green corridor, however it is unclear what the strategic approach to this green corridor is. Further details are requested.

8.2. Landscape Character

- 8.2.1. The development by its nature, will contrast significantly with the existing landscape character. Other than the Dane Valley corridor, the receiving landscape forms part of the Cheshire Plain East, a large expanse of flat and very slightly undulating pastoral field system subdivided by small to medium sized fields with hedgerows and hedgerow trees.
- 8.2.2. In this area woodland cover is low, with small, mixed broadleaved and coniferous copses and coverts, some ancient, scattered intermittently across the landscape between a strong network of lowcut thorn hedges punctuated by hedgerow trees in abundance, and occasional riparian woodland. Mature wooded parkland around Bostock Hall is an exception. Large numbers of field ponds, formed during the 19th century when pits were

dug to extract marl for improving fields, are a common feature of the plain. The area is drained by drainage ditches and a small number of natural brooks, some within minor valleys that provide local undulations in the landscape. There is a low density, dispersed settlement pattern across the plain. Typical construction materials are red brick, with whitewashed and timber framed buildings in a distinctive black and white style.

8.3. Visual Character

- 8.3.1. The Cheshire Plain East landscape is represented by a generally flat agricultural plain where the prevailing field pattern and condition of the hedgerows can account for subtle differences in landscape character. Where fields are smaller, hedges higher and hedgerow trees more abundant, the sense of enclosure is much stronger. Long distance views are blocked or filtered and the perception is of a small scale and much more verdant landscape. Where the fields are larger, with low trimmed hedgerows and fewer trees, the lack of enclosure means that the landscape character appears to be more open and larger scale. At such locations the views are much more extensive and panoramic and often extend as far as the high ground of the surrounding character areas. Mid to long distance views to the west extend to the Sandstone Ridge and eastwards from a limited number of areas to the Pennine hills.
- 8.3.2. Hedgerows and the large number of hedgerow trees, mainly oak, across the plain can lead to a false perception of woodland density. Most viewpoints are low due to the absence of high vantage points and the nearest tall hedgerow tends to form the visual horizon. Views from more open ground tend to feature a succession of hedgerows receding into the distance, and these can coalesce visually into a single mass of tree crowns creating a false impression of woodland cover. Farmsteads and the occasional church spire (located in adjacent character areas) form landmarks in the distance.

8.4. Management Guidance

- 8.4.1. The overall management strategy for the Cheshire Plain East should be to conserve the pastoral character and local built vernacular of the landscape and enhance the condition of the hedgerow and tree network. Landscape management guidelines include to conserve and manage the remaining ditches, field ponds and brooks that are of importance for biodiversity as well as contributing to the diversity of the landscape. Prevent further drying out of wetland habitats and seek opportunities to extend/recreate areas of wetland habitat including reed swamp and willow scrub. Conserve the rural character of the lanes. Avoid features that 'suburbanise' the landscape such as close board fencing, kerbs, signage and lighting. Conserve views to the distant Pennines.
- 8.4.2. For the River Dane corridor, the overall management objective for this landscape should be to conserve the rural, pastoral character of the valley, and to extend/enhance woodland, unimproved grassland and wetland habitats where possible. Some of the landscape management guidelines for the Dane Valley include conserving the undeveloped character of the floodplain and maintain the low settlement density that results in a quiet, tranquil landscape. Protect the valley 'crests' from large-scale built development that would detract from the 'intimate', hidden character of the valley. Preserve the industrial aesthetic of the Trent and Mersey Canal and its setting, including associated structures and artefacts of industrial archaeology. Consider views from the canal in planning new built development in adjacent areas.

8.5. Proposed Development

- 8.5.1. The proposed development will form a linear route following a north south axis, for which much of it will be elevated. As a result, in several sections the development will contrast significantly with the receiving landscape character. With respect to mitigation, the proposed linear corridor of woodland planting could be considered to adversely contrast with the existing landscape character. With no elevations or section drawings it is difficult to fully understand the impacts of the development.
- 8.5.2. As acknowledged within the LVIA, the development will result in several significant adverse impacts to both the visual appearance and the landscape character between Wimboldsley to Lostock Gralam. Mitigation is largely proposed in the form of planting works, embankments and bunding; however, the detailing at this stage is still unclear. Several viaducts will reach heights of up to 29m and embankments will reach heights of 14m. It is also unclear as to what the impacts will be on the many nearby properties and views from footpaths.

8.6. Items requiring further information

- There does not appear to be a supporting Landscape Strategy. This should be included either within the LVIA or as a separate document. The strategy should clearly explain the design approach. It should demonstrate an iterative design process whereby the impacts and mitigation measures have helped to shape the LVIA. This information should inform the proposed landscape mitigation: - i.e., what its function is, the constraints and opportunities, and of what positive impacts can be offered to the receiving landscape character in response to the significant adverse harm resulting from the development?
- Landscape Design – Rather than purely visual screening, the supporting information should inform how the proposals will offer a mosaic of habitats and provide a connection to wider existing features to achieve a more strategic approach.
- Clarification on wider planting proposals - In the layout plans, hedgerows are identified – however most of which appear to be existing. Are these proposed or existing and if so, what will be the improvement gains? Many hedgerows are currently lacking in hedgerow trees - will new hedgerow trees be incorporated into the mitigation works? Also, how will they be managed and maintained?
- Section drawings - Existing and proposed. There are no supporting section drawings included within the application. At present it is very difficult to understand what the build-up levels are?
- Heights of embankments and viaducts - Although this information is provided within the Environmental Statement, it would be helpful if more specific information can be included in the layout plans, sections drawings and LVIA.
- Information on the bunding – please explain what the design rationale is and again provide information on heights and section drawings? At present the bunding appears to be linear in form, running parallel to the HS2 line. It is unclear how this will provide a positive benefit to the wider landscape character.

- The proposed development generally follows a North / South axis. Please provide information on how the proposals will offer visual and physical connectivity from East to West - in terms of both wildlife and landscape character. Please consider wider connectivity to existing river corridors and woodlands.
- Impacts on the A556 Corridor -the proposals will result in a significant remodelling of this highway corridor. Also, please provide further information on the proposed viaduct through Winnington Wood and Smoker Brook. Request for additional Photomontages of A556 Corridor, including viaduct over Smoker Brook.
- Information on public access, PROW diversions and proposed new access routes? Provide information on how local and wider communities can be sustainably connected? What improvements will be made to routes such as the canals, river corridors and existing PROW?
- Information on the quality of design and detailing, and in particular information on the proposed viaducts. Please provide more information on the Crewe North Rolling Stock depot such as building heights, external lighting, impacts on Nantwich Road and mitigation.
- Understanding of the LVIA. In regard to the Rolling Stock Depot, it is unclear why the local character area assessment for Wimboldsley is not included?
- Further information on compounds and borrow pits and of how they could collectively be used to create a wider strategic connected corridor?
- HS2 Green Corridor - please provide information on how the development will help people and communities along this section of the railway to connect with the natural world including footpaths and active travel. What are the conservation and education proposals, as well as projects to create or restore woodlands that are being proposed through CWAC? This stretch of HS2 connects Winsford, Middlewich and Northwich and the rural communities in-between. However, it is unclear what is being offered to these communities. The aims and objectives of the document should be evidently demonstrated within the proposals.

8.7. Recommendation

8.7.1. Details of mitigation proposals are currently unclear. There is no indication as to the benefits to the local community, to the receiving landscape and to the access and transport networks. Nor is there any reference to how a legacy scheme can be achieved. Although it is understood and agreed that the development will result in impacts that will have significant adverse harm which cannot be fully mitigated for, it is considered that the proposed development could have the opportunity to offer some positive benefits. This could include the creation of a strategic and interconnected route of corridors for landscape character, climate change and biodiversity net gain. However, at this stage further detail and supporting information is required to demonstrate any wider benefits.

9. Environmental Protection

9.1. Introduction

- 9.1.1. The Environmental Statement is a high-level document that attempts to provide an overview of the likely issues that may arise as result of the construction and operation of High Speed 2 (HS2).
- 9.1.2. The route through the borough spans approximately 14.6 kilometres with much of the detail yet to be determined and subject to a degree of variation. The Environmental Statement cross references a series of other documents that sit alongside and support it. Much of this has evolved from the previous phases of HS2 and in theory incorporates the experience and knowledge acquired during those phases. In practice the large volume of paperwork associated with the scheme and the need to reference multiple documents simultaneously to identify, disentangle and confirm often simple facts, makes the process of assessment challenging. This will inhibit the capacity of many respondents to this consultation and requires a commitment to follow up work to present information in an easier to interpret format and give more time to receive comments.
- 9.1.3. Additionally, much of the detail is absent and won't be available until a nominated undertaker has been appointed to deliver the scheme. Consequently, the Environmental Statement relies on predictions, often with no detail demonstrating how the predictive data was produced thus nullifying an important objective of the Environmental Statement, to test the validity of the input modelling data and assumptions.
- 9.1.4. The Cheshire West and Chester Council Environmental Protection Team (EPT) has assessed the submitted information about Phase 2b for the areas of noise and vibration, air quality and contaminated land.
- 9.1.5. The following documents have been reviewed:
- High Speed Rail (Crewe-Manchester) Environmental Statement. Volume 1: Introduction and methodology
 - High Speed Rail (Crewe-Manchester) Environmental Statement. Volume 2: Community Area Reports MA02: Wimboldsley to Lostock Gralam
 - High Speed Rail (Crewe-Manchester) Environmental Statement. Volume 5: Appendix LQ-001-0MA02MA02: Wimboldsley to Lostock Gralam. Land Quality Report
 - High Speed Rail (Crewe-Manchester) Environmental Statement Volume 5: Appendix CT-001-00001_Part 3. Cross Topic Environmental Impact Assessment Scope and methodology report. Part 3 of 3
 - High Speed Rail (Crewe-Manchester) Environmental Statement. Volume 5: Map Book. Land Quality (LQ-01)
- 9.1.6. In reviewing these documents consideration has been given to the following documents
- HS2 Air Quality Annual Report 2020
 - B Series Information Papers (selected)
 - C series Information Papers (selected)

- D Series Information Papers (selected)
- E series Information Papers (selected)
- G Series Information Papers (selected)
- HS2 Ltd's Community Engagement Strategy (updated October 2021)
- HS2 Environmental Impact Assessment Scope and Methodology Report Part 3: Technical note – Land quality – Detailed methodology for contaminated land assessment

9.2. Contaminated Land

9.2.1. We make the following comments with regard to land contamination:

1. Land quality baseline data has been collected for the proposed scheme. The baseline data has been used to inform the land quality assessment which is presented in the Environmental Statement. Baseline data has been collected from desk top sources, site visits and previous site investigations. Collection of baseline data, development of conceptual site models (CSM) and risk assessment has been undertaken based on Land Contamination Risk Management (LCRM) Framework and follows national guidance and best practice.
2. The methodology for the screening process and detailed assessment has been provided in the Environmental Impact Assessment Scope and Methodology Report Part 3: Technical note – Land quality – Detailed methodology for contaminated land assessment. The methodology has been adopted previously in Phase 1 and Phase 2A and we agree with the approach.
3. Potentially contaminated areas have been identified that could affect or be affected by construction of the proposed scheme. Any moderate to higher risk sites have been taken forward to more detailed risk assessment. In the MA02 Wimboldsley to Lostock Gralam area, twenty sites required detailed risk assessment and development of a CSM. These sites include historical or current landfills (including underlying caverns used for waste disposal), industrial, mining and commercial sites. We agree with the sites selected for detailed risk assessment. The construction CSM indicates that site investigations will be required prior to the construction of the proposed scheme. Sites which lie within the land required for construction of the proposed scheme may require remediation.
4. We understand that there will be opportunity to engage with the environmental consultants commissioned to investigate potentially contaminated sites as work is undertaken and we welcome this approach. Where a Phase 2 site investigation identifies a requirement for remediation, a remediation strategy must be agreed in advance with the LPA before works are implemented.
5. On completion of remediation works a verification report should be submitted to the Local Planning Authority.
6. Overall, this Unit is satisfied with the information provided relating to land contamination and the sites which have been identified for further investigation.

9.2.2. Summary – Contaminated Land

9.2.3. There are few if any locations within the borough along the proposed route that are thought to be significant with regard to contamination and as such, we consider this to be a low risk issue for the Council. Subject to agreeing a mechanism for the reporting of remedial works undertaken by way of a verification report, as per previous Phases, we are satisfied with the content of the Environmental Statement.

9.3. Noise

9.3.1. HS2 is a major engineering scheme that will impact across a swathe of the borough between Wimboldsley and Lostock Gralam. This area of the borough is rural in character and consequently the number of properties potentially affected by noise are limited by this fact. Irrespective the scale of the development will result in a loss of amenity both during the construction and operational phase that is unlikely to be entirely addressed through mitigation.

9.3.2. The scheme has identified noise criteria for both the construction and operational phase of the development identifying when and where significant effects are likely to arise from the scheme and measures to mitigate adverse effects. For both phases of the scheme a number of properties have been identified where a minor, moderate or major adverse effect is predicted but as stated above, until a nominated undertaker is appointed and details of the scheme become known, some changes to the information submitted can be expected.

9.4. Construction noise and vibration

9.4.1. Construction noise and to a lesser extent vibration, has the potential to result in a significant number of complaints to Cheshire West and Chester Council even if managed effectively by HS2 Ltd. Given an individual response to noise and vibration is often subject to how a person perceives the source, there is in reality, no single noise/vibration threshold above which an adverse effect may occur for an individual. Key to minimising construction complaints is effective community engagement. The EPT note that HS2 are committed to a Community Engagement Strategy and a Residents Charter with a comprehensive Code of Construction Practice (CoCP) and successful implementation of these will reduce the potential for complaints. It is envisaged that experience gained from Phase 1 and to some extent Phase 2a will have improved this process and consequently this will play an important role in reducing the likelihood of complaints.

9.4.2. It is noted that at some locations, given the duration of certain elements of the build and the likely noise levels, complaints are nonetheless inevitable. It is understood that HS2 will provide a dedicated team to deal with noise complaints as they have for previous phases and a Construction Commissioner will be appointed to address areas where a complainant is dissatisfied with the outcome of any such complaint. Whilst the statutory functions of the Council cannot be replaced with regard to obligations to investigate nuisance complaints, it is emphasised that HS2 Ltd. must minimise the need for the Council to get directly involved.

9.4.3. The Environmental Statement states that for construction the ABC methodology as set out in BS5228 has been used for setting construction noise limits. However, whilst there is a commitment to adhere to these by following the measures outlined within the Code

of Construction Practice and any Section 61 notices, it should be noted that the ES makes note that it may not always be possible to do so. In such cases thresholds identifying significant adverse effects has been set out in Table 1 of E11: Control of construction noise and vibration. When a threshold is exceeded additional mitigation measures are offered such as sound insulation to individual properties. If noise levels reach a certain threshold or else sound insulation is not a viable option, a comprehensive temporary rehousing package exists for residents.

9.4.4. The Environmental Statement does provide some provisional identification of properties where the permitted construction noise levels are likely to exceed requirements for noise insulation and/or temporary rehousing. It is noted however that these sound levels will be subject to change once contractors are appointed and bring forward their own detailed schemes. Some 17 residential properties are identified in para. 13.4.9 of Volume 2: Community Area report MA02, as being at a level where noise insulation will be required but none above the temporary rehousing level are identified presently. However, it is possible that this number is more a function of the restrictions applied to the criteria which are extensive with para 13.2.14 confirming: that notwithstanding the measures set out in this draft CoCP and any Section 61 consents, noise insulation or temporary re-housing will be offered to qualifying parties when:

- Noise levels are predicted or measured by the contractors to exceed the relevant trigger level defined in Table 1 at that property for at least 10 days out of any period of 15 consecutive days, or 40 days in any six-month period.
- The property complies with all other requirements of the Noise Insulation (Railways and other Guided Systems) Regulations 1996.
- The property should be lawfully occupied as a permanent dwelling.
- In respect of insulation, noise insulation does not already exist that is of an equivalent standard to that which would be allowed for under the Noise Insulation (Railways and other Guided Systems) Regulations 1996.

9.4.5. Consequently, there is considerable scope for residents to experience a significant loss of residential amenity during construction without any recourse.

9.4.6. The CoCP sets out the prime means of noise control will be through restricting hours of operation, selection of plant and machinery, good management practice onsite and the use of screening where possible as well of course as good communication with residents through the Engagement Strategy. Section 61 applications to the Council under the Control of Pollution Act 1974 will be submitted as part of this process to formalise agreement as to what constitutes best practicable means for the development in terms of construction activities. Any application will be supported by additional noise surveys to demonstrate the effectiveness of the proposal. Legally this is entirely an appropriate route and significantly it offers the benefit to the applicant of agreeing Best Practicable Means in advance of work starting which removes the uncertainty of the local authority taking action under Statutory Nuisance provided the S61 requirements are adhered to.

9.4.7. Section 61 notices are time consuming for local authorities because of the implicit risk arising that if provisions are not tight enough and complaints are received, there are almost no means available to address them other than developer goodwill. It is noted

however that their use has been standard throughout Phase 1 with the same approach agreed for Phase 2a. Preliminary discussions with HS2 over specifics of S61 applications and subsequent handling and monitoring of consents is recognised as a new burden with the associated costs claimable by the Council as per Information Paper C12: Local Authority funding and new burdens.

- 9.4.8. The standard working hours adopted within the ES mirrors those advocated by the Council under the local plan and are therefore agreeable. Construction works outside of these hours has the potential to cause issues and it is noted that the applicant whilst committing to limit such requirements to a minimum, does not offer a framework limiting the number of successive nights work that a resident may be exposed to. Whereas the Local Plan Part 2 places an onus on developers to provide a robust acoustic case for out of hours working, this provision does not form part of HS2 requirements. It should be noted though that works undertaken on railways often take place out of hours without any site specific noise control plans as safe working conditions on live lines can often only take place out of hours work. Depending on the circumstances however, the applicant should balance the short term inconvenience of cancelling Sunday services to facilitate such work in the daytime rather than working at night as a default and this commitment is provided.
- 9.4.9. Importantly this scheme does not offer any guarantees that the target noise levels set out will be achieved. It commits to only where reasonably practicable, in other words they will try their best but that may not always be sufficient. Where it is insufficient, there appears to be no relevant sanction.

9.4.10. **Summary – Construction noise**

- 9.4.11. The construction noise thresholds are considered to comply with accepted national standards. Construction noise will generate complaints despite the fact that HS2 has a framework in place to minimise the noise impacts of the construction phase. The proximity of receptors and the nature of some of the construction activities combined with the duration of construction activities at certain locations make this outcome inevitable. HS2 have a Community Engagement Strategy with each nominated undertaker developing a Community Engagement Frameworks and will liaise with the Council particularly prior to submitting Section 61 applications. These will minimise to the extent possible unacceptable impacts on residents but ultimately construction is noisy and consequently some residents will have to endure prolonged exposure to noise with no recourse. Where HS2 find themselves unable to meet their standards, residents will be expected to accept the associated loss of amenity. Whilst this loss may be classed as temporary for the duration such works affect them, it should be noted some residents may experience construction noise on a frequent basis for many years.

9.5. Operational Noise

- 9.5.1. HS2 have proposed a criteria for assessing the impact of operational noise on various receptors based on the use of Significant Observed Adverse Effect Level (SOAEL). A SOAEL is effectively an action threshold and noise levels below do not require them to take action in terms of mitigation beyond those already incorporated into the scheme at the design stage. Where a SOAEL is exceeded then the offer of noise insulation as a means of further mitigation will be offered. The SOAELs as set out in Table 1 of E9: Control of airborne noise from altered roads and operational railway, are presented below.

Table 1: Noise effect levels for permanent residential buildings

Time of day	Lowest Observed Adverse Effect Level (dB)	Significant Observed Adverse Effect Level (dB)
Day (0700 – 2300)	50 L _{pAeq, 16hr}	65 L _{pAeq, 16hr}
Night (2300 – 0700)	40 L _{pAeq, 8hr}	55 L _{pAeq, 8hr}
Night (2300 – 0700)	60 L _{pAFMax} (at the façade, from any nightly noise event)	80 L _{pAFMax} (at the façade, from more than 20 nightly train passbys), or 85 L _{pAFMax} (at the façade, from 20 or fewer nightly train passbys)

- 9.5.2. The establishment of the SOAELs is not entirely clear. Whilst the SOAEL for night-time noise is explicitly based on the World Health Organisation (WHO) Night Noise Guidelines for Europe and we consider this appropriate, the logic for the derivation of the other criteria is less obvious.
- 9.5.3. The logic for the establishment of the daytime SOAEL is less clear and appears that use of ProPG: Planning and Noise, has been made to support this but confusingly this is a standard applicable to new residential development i.e., assessing a noise climate to determine its suitability for introducing new residential dwellings rather than introducing a new noise source to existing residential developments.
- 9.5.4. The critical difference being new residential can be designed to minimise the impact of noise whereas existing residential are, as is the proposal here, stuck with whatever level is imposed on them. We would consider the daytime threshold of 65dB 16 hr to be too high, not only because it would exceed the outdoor level of 55dB LAeq 16 hour for gardens, the level identified by WHO for significant annoyance but also because allowing 15dB noise mitigation for an open window, internal levels would exceed the recommended 35dB daytime level set out in BS8233, a level which according to the noise data submitted, many properties are presently enjoying.
- 9.5.5. In keeping with WHO standards and BS8233 and the recognition that single event noises such as the passing of a train at high speed could wake someone up, a criteria for this has been included. The levels set out for this at 80dB L_{max} at façade would result in internal levels of circa 45dB for typical well installed double glazing, higher levels for poor installations. The WHO guidelines for community noise identifies 45dB L_{Max} as the level at which single event noises may wake an individual or disturb their sleep.
- 9.5.6. HS2 proposes that single event noises outside a window of 85dB is acceptable provided it is for up to 20 trains. This would translate to circa 50dB internally and if the occupier either needed or wished to have an open window would result in such events levels as high as 70dB, allowing 15dB(A) reduction for an open window. Additionally, these levels fail to take into consideration existing single event noise already experienced at such locations. There are a significant number of properties identified within the Environmental Statement that will experience levels likely to result in waking events at a frequency not

usually considered acceptable in planning terms but will not qualify for sound insulation mitigation.

9.5.7. In summary then HS2 Ltd. takes the view that once all mitigation measures have been utilised as part of the design and build and the selection of trains, external noise levels which may render enjoyment of individual gardens impossible, simply have to be seen as an unfortunate outcome of this development. Similarly internal noise levels that have been raised such that they above the recommended BS8233 internal levels but fall just short of the SOAEL again are just an unfortunate outcome of this development.

9.5.8. In those locations where background noise levels are low, this effect will be considerable for residents but with apparently no compensation for their loss of amenity.

9.5.9. Finally, residents of properties unfortunate enough to suffer extremely high single event noises which just fall short of 80dB or 85dB depending on the number of related train movements, again are just an unfortunate outcome of this development with no recourse.

9.5.10. **Noise from stationary plant**

9.5.11. Noise from plant will be assessed through BS4142 and the EPT would agree entirely with this approach. The design goal is 5dB below background which again is the level we would aspire to. However, it is noted that this is a best endeavours commitment and not absolute. There is no cap proposed for plant noise levels. Ordinarily for a scheme such levels for plant would be conditioned and require discharging to demonstrate compliance with approved levels. Effectively HS2 state that they will do their best but where that is not good enough the residents will have to accept the consequences.

9.5.12. **Mitigation**

9.5.13. There is no information provided as to what mitigation measures have resulted in the predicted noise level provided, just a statement to the fact that the proposed scheme is being designed to manage and control the impact of the railway in so far as is reasonably practicable and that in addition to the introduction of sound insulation mitigation is achieved by

- distance
- at source through quieter trains and track
- use of barriers

9.5.14. Such mitigation will be identified taking into account

- environmental health and benefit
- cost
- other environmental effects caused by further noise mitigations; and
- responses from consultation and stakeholder engagement (such as stated preference to a particular type of barrier, style and design or earthworks etc).

9.5.15. It is not clear what the penultimate bullet point means and it is not clear which stakeholder engagement the last bullet point refers to but presumably means following the

appointment of a nominated undertaker and a residents charter published and commissioner appointed. The current level of documentation is clearly unsuitable in many places for use for resident consultation purposes.

9.5.16. Summary – Operational noise

9.5.17. The noise section of the Environmental Statement is particularly opaque. Whilst recognising the challenges posed by the nature and scale of the scheme and the unique framework in which it will operate, the Environmental Statement raises several concerns over the approach to noise. Many of the concerns are the same as those raised in the petition by the Local Authority Noise Consortium for Phase 1, dated 29 October 2015 so it is unlikely that raising them in a petition will result in any added improvements for residents.

9.5.18. Equally stated although not demonstrated, the ES adopts a worse case approach and many adverse effects may not be realised at all or else be lower than presently predicted. Given these facts, we advise that the focus should be in ensuring that we deliver the best we can for residents where possible either through schedule 17 matters or COPA Section 61 notices.

9.6. Air Quality

9.6.1. The air quality impact assessment includes an appraisal of pre-construction baseline data using a combination of local authority monitoring data, HS2 monitoring data and modelled data. Methodologies used in the impact assessment are sound and the techniques appropriate, as would be expected for a major development such as this, and mirror those used in earlier phases of the project.

9.6.2. Impacts have been assessed against the existing UK standards and objectives. Pollutants assessed comprise the national strategy pollutants nitrogen dioxide (NO₂) and particulate matter (both PM₁₀ and PM_{2.5}), with baseline concentrations at sensitive receptors assessed as being compliant with the relevant standards, which is in line with Council's own findings.

9.6.3. Baseline concentrations of air pollutants in the immediate area are low. Likely impacts of HS2 construction and operational phase traffic have been modelled, and the predicted impact at sensitive receptors is described as negligible and therefore not significant at the majority of receptors modelled. The consultants conclude there is no risk of the short-term and long-term standards being exceeded in Cheshire West because of either the construction, mineral extraction or operation of the railway.

9.6.4. Changes are expected to the existing UK standards and objectives with regard to PM_{2.5} later this year and further changes may be expected to other pollutants given the length of the build. We would expect a clear commitment to review air quality assumptions in the event of any such changes with a further commitment to implementing mitigation measures and undertaking real-time monitoring if emissions arising during the construction and operational phase are likely to approach or exceed an objective.

9.6.5. Document E14 states that the development will seek to set a new standard for major construction projects with regards to the management of air quality impacts from

construction traffic. Assurances are given as to the minimum emission standards for both road vehicles and non-road mobile machinery.

- 9.6.6. The HS2 development proposes to establish several borrow pits in the borough for the extraction of minerals to be used in the construction of the railway. As part of the remediation of the land used for the pits the intention is that they would be backfilled with material extracted from excavation works in the Crewe area.
- 9.6.7. The pits are sited in close proximity to the communities of Wimboldsley and Byley. The assessment states that there is a high risk of dust soiling both from earthworks and construction and that operation of the borrow pits is described as substantial adverse at certain receptors. - There is a risk of nuisance dust impacts. However, the report goes on to say that with the application of the established national best practice mitigation measures contained in the draft Code of Construction Practice (CoCP), no significant effects are anticipated from the dust generating construction activities and those associated with the operation of the borrow pits. Clearly, for the effective control of dust, mitigation practices detailed in the site's construction dust management plan will need to be carefully planned and observed over the lifetime of the development.
- 9.6.8. Alternatives to the establishment of local borrow pits (i.e. existing quarries) have been considered by HS2 Ltd. but as this would necessitate an increase of over 160,000 HGV movements on the public highway, along with the associated increase in vehicular emissions, it is concluded that the local resource presents the least damaging environmental option.
- 9.6.9. Schedule 6 of the Bill introduced to Parliament identifies four local borrow pits and there are therefore no grounds for objection to the location of the extraction sites, although Cheshire West and Chester Council may impose conditions relating to the control of dust and other environmental considerations.
- 9.6.10. The CoCP referred to above is part of a suite of Environmental Minimum Requirements being implemented by HS2 Ltd. At this point in time, specific detail within the CoCP has yet to be finalised and agreed. We are advised that it is an evolving document but that the Local Authority and other interested parties will have the opportunity to comment on the content during the consultation process.
- 9.6.11. We understand that there will also be the opportunity to engage with HS2 Ltd in relation to the locations of ongoing monitoring sites which will be established to ensure compliance. In common with earlier phases of HS2, monthly air quality monitoring reports will be produced which summarise works planned, monitoring results, complaints logs, trigger alerts and remedial actions taken. Annual reports will also be produced.
- 9.6.12. **Summary – Air Quality**
- 9.6.13. Overall, this Team is satisfied that the development should not lead to exceedances of national strategy pollutants and local dust impacts will be minimised.

10. Education Service

- 10.1.1. Cheshire West and Chester Council assessed the direct impacts of HS2 construction and operation on schools. At present, the schools identified to have the greatest anticipated impacts are Wimboldsley Community Primary School and Byley Primary School and Nursery.
- 10.1.2. Byley Primary School and Nursery is a school of choice for parent/carers and has 102 pupils on roll including nursery aged children (as at October 2021). Mainstream schools are funded in accordance with the Department for Education's National Funding Formula which relates to pupil numbers on the school roll and therefore local authorities have limited scope for supporting schools adversely affected by falling pupil numbers as a result of HS2. The revenue impact on a school of falling pupil numbers would be ongoing (not one off) for as long as pupil numbers remained low. As with all small rural schools, even a small decline in pupil numbers can adversely affect the operation and viability of the school due to the limitations on how classes can be organised and resourced. If a significant reduction in numbers on roll occurs that can be directly attributed to the impacts from HS2, there would need to be consideration by HS2 for financial compensation for the school in line with the school funding mechanism at that time.
- 10.1.3. Wimboldsley Community Primary School is a school of choice for parent/carers and has 132 pupils on roll (as at October 2021). Mainstream schools are funded in accordance with the Department for Education's National Funding Formula which relates to pupil numbers on the school and therefore local authorities have limited scope for supporting schools adversely affected by falling pupil numbers as a result of HS2. The revenue impact on a school of falling pupil numbers would be ongoing (not one off) for as long as pupil numbers remained low. As with all small rural schools, even a small decline in pupil numbers can adversely affect the operation and viability of the school due to the limitations on how classes can be organised and resourced. If a significant reduction in numbers on roll occurs that can be directly attributed to the impacts from HS2, there would need to be consideration by HS2 for financial compensation for the school in line with the school funding mechanism at that time.
- 10.1.4. Wimboldsley school will have two borrow pits (Borrow Pits A and B) located only 85 metres and 300 metres respectively, from its out-door play area in addition to the rolling stock depot to be 350 metres from the school's boundary. Embankments of 4 metre height will be only 270 metres west of the School.
- 10.1.5. The outdoor play area of Byley Primary School and Nursery is located only 380 metres from Borrow Pit D which will generate major adverse disruption on the highway network, particularly on the nearby (to the school) B5081 Byley Road (between B5309 Centurion Way and Moss Lane) due to increased traffic associated Borrow Pit D. Generation of up to 572 lorry movements in each direction will impact on the safety of movements of children and staff to and from school (including for offsite activities) as well as having an ongoing impact on the ambience of the school's learning environment.
- 10.1.6. The two schools are examples of the overall cumulative impacts being greater than those when assessed individually. Because of this, Cheshire West and Chester Council funded specialist work to assess these impacts. These reports are being finalised and will be

forwarded separately to HS2 Ltd. after the closing date of this consultation. The government and HS2 Ltd are asked to note the extensive findings of this comprehensive and objective report and commit to providing additional measures.

10.1.7. The highest risks come from the proximity of Borrow Pits A, B and D. HS2 has not provided any evidence that the mitigation measures contained within the draft Code of Construction Practice will result in there being no dust soiling at the schools, nor has it explained how/why the mitigation measures will operate and secure the outcome.

10.1.8. Recommendations of the reports include:

- That the Environmental Statement is updated to include both schools as a receptor for dust soiling so there is a specific statement on the predicted impact on each school.
- Continuous air-quality monitoring equipment is provided at each school and at Borrow Pits A, B and D by HS2's contractors so that any air-quality breaches can be immediately identified with remedial mitigation actions taken (e.g. ceasing all construction operations until the air-quality breach is cleared).

10.1.9. Cheshire West and Chester Council requests that HS2 Ltd promptly establishes a working group comprising staff with relevant expertise to review these reports, including relevant staff from Cheshire West and Chester Council and representatives from both schools.

11. Highways

11.1. Introduction

11.1.1. The proposed route of HS2 through Cheshire West and Chester will have a significant environmental impact on the Highway Network both during the significant construction phase and when the service is operational. Cheshire West and Chester Council seeks undertakings from HS2 Ltd. that will ensure the expeditious movement of traffic, recognizing the extent to which traffic congestion adds to pollution levels, deterioration of air quality and to meet the council's duty to coordinate and reduce the disruption caused by roadworks

11.1.2. Furthermore, a similar undertaking is sought with regard to ensuring public rights of way, passenger transport (public bus services and education / social care transport) and active travel corridors are available for the journey origins and destinations currently used by communities.

11.1.3. Cheshire West and Chester Council requires an undertaking from HS2 Ltd. to meet all additional costs associated with the evaluation, design and subsequent maintenance of works affecting highways and public rights of way arising from HS2 construction and subsequent operation.

11.1.4. Focus must be maintained on committing to measures that will protect existing use of highways and public rights of way by people living in these communities. This must ensure that these routes are not severed, can be safely used, be accessible to all and not be detrimental to residents, visitors and businesses.

11.2. Highways Engagement with HS2 Ltd

11.2.1. There has been engagement between Highway officers and HS2 Ltd. but it is felt that this has reduced significantly recently. It would have been expected that more discussions would have taken place given the size and complexity of the scheme.

11.2.2. Technical meetings have taken place but there have been no follow up meetings recently to discuss the responses we provided on the proposals / mitigation measures and the request for more detailed information to be able to fully appraise the impact on the Highway Network.

11.3. Highways Key Points

- Need for HS2 Ltd. to arrange further meetings to discuss the Highway environmental impacts of this scheme.
- Need HS2 Ltd. to provide the requested data including the traffic model used for their assessments, so that we can fully assess the junction impacts and proposals along the route.
- Need HS2 Ltd. to confirm the length of the proposed construction phases as they have not been stipulated as this will have an impact on our response to proposals.
- Need HS2 Ltd. to provide us this relevant information regarding works in neighbouring Authorities that will have an impact on Cheshire West so they can be fully assessed.
- Need HS2 Ltd. to provide all information that may not be within their administrative boundaries but will have a traffic impact on with Cheshire West. This is particularly significant around Middlewich as it is located within Cheshire East, but the Council boundaries change between authorities several times.
- For HS2 Ltd. to provide more information about the suitability of the identified construction routes and what mitigation measures are being put in place to ensure movement of vehicles (including passenger transport infrastructure and corridors) are not detrimental to our asset and the rural environment.
- Specific clarification from HS2 Ltd. of their obligations to provide funding that all roads are kept in a safe condition during construction phase in line with our Highway Inspection Policy and Code of Practice. This is to include a commitment for appropriate adjustment to reduce HGV movements for the duration of any temporary road closure for such remedial work.
- The mode share for the workforce is rather optimistic in terms of passenger transport / active transport usage. It is hoped that local bus services / cycle networks are significantly improved by the time construction gets underway, but this is unlikely to be the case. HS2 need to provide information on what funding will be provided to encourage use of public transport and active travel by its staff for the construction and operational phases.
- Arriva Ltd. are based on the Winsford 1 – 5 Industrial Estate and are one of the main providers for public transport across Cheshire West and East and surrounding areas. HS2 need ensure that access to / from this depot (and of other employers at this and other employment sites) will not be adversely affected. This is also of importance to

overall punctuality of bus services including those connecting with trains at Winsford and other railway stations.

11.4. Key junction locations

11.4.1. The key locations identified below will require improvement measures to mitigate the detrimental environmental impact of increased traffic flows during the construction phase.

11.4.2. These should include appropriate bus priority, provision for active and sustainable travel mode provision as standard to align with the aspirations of our Local Cycle and Walking Investment Programme (LCWIP) and Bus Service Improvement Programme (BSIP).

11.4.3. Comments below relate to the environmental construction impacts only based on the information made available to Cheshire West and Chester Council. Comments relating to the permanent changes to the highway are reserved.

11.4.4. A530 King Street / A530 Croxton Lane / B5309 King Street

11.4.5. As construction traffic will have an environmental impact at this junction, Cheshire West and Chester Council would require a junction improvement scheme in the form of a roundabout or a traffic signal junction subject to detailed design. A 50mph speed limit along A530 King Street would support any design. An understanding of the land take required for both options need to be provided by HS2 Ltd and ensure that there is sufficient land take within the bill for an appropriate mitigation scheme.

11.4.6. A530 King Street / Davenham Road / Crowders Lane

11.4.7. As construction traffic will have an environmental impact at this junction, Cheshire West and Chester Council would require a junction improvement scheme subject to detailed design. This would require sufficient land take to be included within the bill for an appropriate mitigation scheme at this location. This location has a history of injury collisions and a reduction in speed limit to 50mph along A530 King Street would support any design.

11.4.8. The provision of cycle facilities to LTN 1/20 need to be included in any proposed scheme as cycle route 573 crosses A530 King Street at this junction.

11.4.9. A530 Griffiths Road / A559 Manchester Road

11.4.10. As construction traffic will have an environmental impact at this junction, Cheshire West and Chester Council would require a junction improvement scheme to install a traffic signal junction subject to detailed design. This would require sufficient land take to be included within the bill for an appropriate mitigation scheme at this location. Traffic model data has been requested so that officers are able to fully review the impacts on this junction.

11.4.11. This junction has a history of injury collisions involving cyclists coming into conflict with right turn movement of vehicle entering and leaving Griffiths Road. The Council would like to see cyclists better protected at this location.

- 11.4.12. The low bridge on Griffiths Road has been highlighted in our previous meetings with HS2 Ltd. but a response has not been received to whether this was included in the traffic modelling.
- 11.4.13. A530 Griffiths Road has been included as a construction route for HS2, but it is unsuitable due to the location of the low bridge at the A559 Manchester Road end. A530 Griffiths Road is being proposed as the diversion route for the re-alignment works on the A556 Chester Road particularly when the tie-in points are being undertaken. This route is not suitable for diverted traffic from the A556. HS2 Ltd. need to assess the suitability of A530 Griffiths Road and provide an alternative route.
- 11.4.14. A530 Nantwich Road / Chapel Lane**
- 11.4.15. The construction of the rolling stock depot will have a major environmental impact of the junction in Wimboldsley and surrounding roads as they are being used for construction traffic and the movement of materials from borrow pits.
- 11.4.16. Cheshire West and Chester Council has previously commented that HS2 Ltd. would need to investigate mitigation measures on Chapel Lane during the construction phase to help mitigate local concerns and potential safety issues around the school. Further details on vehicles flows and construction length were requested to fully consider the impact.
- 11.4.17. Since the discussions with HS2 Ltd, officers have been made aware of potential increase extent of HGV movements along A530 and the size of the workforce working on the extensive site at Wimboldsley:
- Estimated HGV movements at peak construction times is 600 movements per day and the additional workforce traffic.
 - No construction traffic will be heading north via Clive Green Lane for an initial period; all construction traffic will pass Chapel Lane.
 - Cheshire West and Chester Council are now aware that Forge Mill Lane and School Lane is a potential route for construction traffic to HS2 sites in Cheshire East. HS2 need to provide details of any possible construction routes along School Lane.
 - The A530 Middlewich Road is an emergency service route to Leighton Hospital. HS2 Ltd. will need to confirm if School Lane and Chapel Lane will become the diversion route during closures for the construction of a new overbridge to the south of Chapel Lane.
 - Given the expected traffic impacts, a junction improvement is required A530 Middlewich Road / Chapel Lane junction. Signalisation of the junction needs to be considered but as a minimum, right turn lane provision needs to be provided.
 - Re-route any construction traffic or diversion route from School Lane to Chapel Lane. Signing to direct HS2 traffic to use Chapel Lane not School Lane (if construction route is confirmed)
 - Proposed Highways impact detailed above needs to be considered in conjunction with the report about impacts on Wimboldsley school attached to this consultation submission.

- To promote active travel, bridleway 6 (Sutton Lane) runs from Sutton Lane, Middlewich to School Lane (450m south of the school). It is metalled between Middlewich and Sutton Mill. HS2 Ltd. need to consider surfacing to School Lane and investigate a safe route to access Wimboldsley school (70% pupils travel from Middlewich)
- The junction of A530 Nantwich Road and Brookhouse Lane is also a key consideration for mitigation measures as it is used as a local access route between Cheshire West and Cheshire East. This junction is within Cheshire East but will need mitigation measures as the construction will have a big impact on residents in our borough. This would require sufficient land take to be included within the bill for an appropriate mitigation scheme at this location

11.4.18. **A559 Marston Lane / B5075 Ollershaw Lane/Dark Lane**

11.4.19. As construction traffic will have an environmental impact at this junction, Cheshire West and Chester Council would require a junction improvement scheme to be installed. This would require sufficient land take to be included within the bill for an appropriate mitigation scheme at this location

11.4.20. **A556 Shurlach Road / A559 Manchester Road**

11.4.21. The re-alignment of the A556 Chester Road and the construction of the railway will have a major environmental impact of the surrounding road network and access to local communities during the construction phase.

11.4.22. Cheshire West and Chester Council require all the traffic signal timings at junctions along the Manchester Road corridor during the construction works need to be reviewed by HS2 Ltd. As the bridge supports for HS2 will be positioned in the central reserve, HS2 Ltd. need to confirm what environmental impact this will have on the traffic during construction. The low bridge on A530 Griffiths Road needs to be considered for any diversion routes proposed for the construction phase. This route is unsuitable as a diversion route for the A556 Chester Road.

11.4.23. **A556 Shurlach Road / A530 King Street**

11.4.24. As construction traffic will have an environmental impact at this junction, Cheshire West and Chester Council would require a junction improvement scheme.

11.4.25. HS2 Ltd. need to review traffic modelling to assess different improvement options for the current roundabout.

11.4.26. There are concerns that there is insufficient land take within the bill for an appropriate mitigation scheme at this location.

11.4.27. The current roundabout is at full capacity. With the stopping up and diversion of Penny's Lane to the roundabout south of this junction all traffic to Penny's Lane will turn right at this junction reducing the number of opportunities for westbound A556 Shurlach Road traffic to enter the roundabout. This will lead to potential increase of queue lengths on the A556 Shurlach Road. Full evaluation of different design options are needs to be undertaken including for phases of HS2 construction.

11.4.28. A559 Hall Lane / A559 Manchester Road / Station Road

11.4.29. As construction traffic will have an environmental impact at this junction, Cheshire West and Chester Council would require capacity to be reviewed to assess the impact of the diverted traffic onto this route during the A556 Shurlach Road construction phase. This junction can be busy under “normal” traffic conditions, so it needs to be fully reviewed by HS2 Ltd. for road safety measures and provision for active and sustainable modes.

11.4.30. Although there will be significant reduction of through traffic from A556 Shurlach Road, there is concerns over the increase in HS2 commuter traffic to the proposed compound on Station Road.

11.4.31. A54 Middlewich Road / Road One / Clive Lane

11.4.32. All traffic from the details provided for the construction period are being routed to this junction noting the high proportion of HGV movements. There is also commuter traffic using this junction to access Winsford Industrial Estate. There are concerns that there is insufficient land take within the bill for an appropriate mitigation scheme at this location.

11.4.33. The Winsford Transport Strategy identified this junction as requiring improvements to the right turn manoeuvres in and out of Road 1 in addition to a need to re-route A54 (Stanthorne to Road One) to ease flows in Clive Lane and address the existing Road One / A54 Middlewich Road congestion.

11.4.34. Clive Green Lane is the HGV route to A530 Nantwich Road avoiding the low bridge in Middlewich. HS2 Ltd. need to assess this in more detail and the impact of their planned works on the significant amount of traffic seeking to access the M6 at junction 18

11.4.35. As an alternative, Cheshire West and Council want HS2 Ltd. to provide a fourth arm from the proposed roundabout connecting A54 Middlewich Road and A533 Bostock Road to Road 5 on the Winsford Industrial Estate. This would require sufficient land take to be included within the bill for an appropriate mitigation scheme at this location.

11.4.36. This scheme would require the signalisation of the Road One / Road Five junction including right turn lane provision. Right turn manoeuvres from Clive Green Lane can be directed via Road Five. The provision of cycle facilities to LTN 1/20 would need to be included in the proposed design. This would require any land take needed to be included within the bill for an appropriate mitigation scheme at this location.

11.4.37. Clive Green Lane has been identified as a key route along its whole length for HS2 construction traffic. Cheshire West and Chester Council require HS2 Ltd. to fund an upgrade for its full length, working in collaboration with the Council. This is supported by Cheshire East Council.

11.4.38. Borrow Pit D - Off Byley Lane, Byley

11.4.39. There are concerns regarding the environmental impact of Borrow Pit D, north of Byley Primary School and Nursery, with the increased HGV movements along Byley Lane and how this will affect the school, local residents and road users. All pupils at the school arrive by car. Please refer to the report about impacts on Byley Primary School and Nursery, accompanying this submission.

- 11.4.40. The proposed 400 - 500 movement per day predicted will have a significant impact on the junction of Byley Lane with Drakelow Lane and Moss Lane and with Byley Lane and Centurion Way. As Drakelow Lane / Moss Lane junction has a collision history with restricted forward visibility to the north, HS2 needs to undertake to improve this, and land take will be required to move back boundary fences/hedge lines.
- 11.4.41. There will be an increase in HGVs turning right onto Centurion Way and it will also be a route for several other HS2 sites. The opportunities to turn right will be restricted and may cause queuing on Byley Lane. This may have an adverse effect for business and residential traffic along Byley Lane. HS2 Ltd. need to consider the traffic impacts on this junction and seek the views of Cheshire East as Centurion Way either side of the junction is within their Authority.
- 11.4.42. The construction routed traffic will have a big impact on the A54 Homes Chapel Road corridor and the junctions along its length. These are mainly in Middlewich which is within Cheshire East but will have an impact on residents/commuters in Cheshire West with the proximity to the motorway junction. Cheshire East have identified A54 Holmes Chapel Road / A533 Leadsmithy Street, Middlewich as requiring mitigation measures which is strongly supported by Cheshire West.
- 11.4.43. A533 Middlewich Road / Bostock Road**
- 11.4.44. As construction traffic will have an environmental impact through Bostock village, Cheshire West and Chester Council would require a junction alteration to change the priorities at this junction so that HGV traffic is routed along A533 Bostock Road to Road 1 roundabout. The environmental impact of HGV's travelling through Bostock can be reduced by re-routing them to Road One.
- 11.4.45. This would require sufficient land take to be included within the bill for an appropriate mitigation scheme at this location.
- 11.4.46. A556 Shurlach Road / Birches Lane, Lostock Green**
- 11.4.47. The current Birches Lane junction with A556 Shurlach Road is being stopped up and relocated to the east. HS2 Ltd. need to provide a detailed design to ensure that it meets the current design standards for a dual carriageway as there are concerns around the junction visibility and de-acceleration turning left into Birches Lane.
- 11.4.48. The provision for active travel needs to be fully reviewed as the natural route from Lostock Green to Lostock and Rudheath is being severed by the railway line. This prevents active travel access to amenities in Lostock, Rudheath and Northwich including Lostock railway station. HS2 Ltd. need to provide assurances that pedestrian and cycle movements are not compromised, and adequate direct provision is included in the proposals.
- 11.4.49. Confirmation is required that the Lostock Gralam FP14 route and configuration is being retained as this is a heavily used footpath link from Lostock Green to Rudheath and its amenities. The status of FP14 is unclear on the maps.
- 11.4.50. The above junctions are the key locations of our environmental highway concerns, but other junctions will need to be assessed to determine if any improvement measures are

needed and whether any additional land take is required within the bill for appropriate mitigation measures.

11.5. Public Rights of Way (PROW)

11.5.1. As the construction and proposed changes will have an environmental impact on the PROW network, Cheshire West and Chester Borough Council seeks clarification and further detailed information from HS2 Ltd. to provide a commitment to safeguarding and increasing cycling and walking.

11.5.2. Examples include:

- The proposed stopping up line of A530 Nantwich Road (old section). Will this be completely closed, or could it be made available for pedestrian traffic to avoid using the main road and crossing over the bridge. This would make this section quieter and an improved link to Wimboldsley FP5 and FP9 (Verdin Arms) which two paths also link to the canal towpath.
- The A530 Nantwich Road realignment requires the provision of active travel infrastructure (including segregated facilities and suitable height parapets).
- Commitment to the provision and design of improvements to the Canal Towpath, in particular for mitigation measures for the section under the shadow of the HS2 viaduct to ensure the surface does not deteriorate in poor weather conditions. This is also the route for the NCN 5 promoted long distance cycle route. Shadows and surface deterioration would be adverse impacts visually and in respect of surface quality.
- The A530 / Clive Green Lane realignment (including new canal crossing) requires the provision of active travel infrastructure (including segregated facilities and suitable height parapets).
- The old Clive Green Lane appears to be a retained highway. Clarification is required of whether this is retained. This should at least be retained with pedestrian/cycling access.
- Inclusion and design of safe crossing points for pedestrians at the Clive Green Lane roundabout.
- The current link between Clive Green Lane canal bridge and the footpath / towpath running along the canal must be retained and pedestrians and cyclists can exit at the bridge. The link is important to keep connectivity with the PROW network on the east side of the canal. The hybrid order, as shown in the plans, will delete the existing alternative connection, FP1 Wimboldsley on the east side of the canal, and consequently, place a higher importance on the PROW network link to Clive Green Lane.
- The proposed deletion of FP1 Wimboldsley will curtail segregated facilities to destinations such as Wimboldsley Primary School and with the A530 currently having no footway or cycle facilities there needs to be active travel infrastructure mitigation provided along the A530 Nantwich Road.
- Cookes Lane on the north side of the A556 Shurlach Road provides a safe pedestrians and cyclist route avoiding the A556 Shurlach Road. This active travel route is an

essential non-motorised link for Lach Dennis and Lostock Green community with Rudheath and Northwich including Rudheath High School.

- The construction of the re-alignment of A556 Shurlach Road need to include for a multi-user safer route that is designed to LTN 1/20 traffic route.
- HS2 Ltd. need to confirm that Lostock Gralam FP14 route and configuration is being retained as this is a heavily used footpath link Lostock to Rudheath and its amenities. Its status is unclear on maps.

11.5.3. The canal and PROW network are incredibly valuable assets for improving health & wellbeing and to the local tourism industry with measures to encourage their use also supporting rural businesses and communities

11.6. Highway Drainage and Flood Risk Management

11.6.1. Cheshire West and Chester Council require HS2 Ltd. to fully assess the impact of the proposals on Highway drainage and flood risk management as part of their role as Local Lead Flooding Authority (LLFA).

11.6.2. HS2 have undertaken their first 2b Water and Drainage Sub-group meeting on 16 February 2022. Highway officers attended this initial meeting.

11.6.3. Further details are needed from HS2 Ltd. for Cheshire West and Chester Council to assess impacts and requirements for flood risk management measurements to be provided by HS2 Ltd. to manage any increase in volumes of water attributable to construction and operation of HS2.

12. Conclusion

12.1 Cheshire West and Chester Council recognizes the magnitude and complexity associated with the government's scheme for the construction and subsequent operation of HS2 Phase 2b. Although extensive work has already been undertaken by HS2 Ltd. to conclude with the proposed route and infrastructure, there needs to continue to be meaningful provision for change, particularly as technical work develops new findings and strengthened mitigation solutions are identified.

12.2 The Council emphasises that HS2 is already having a major adverse impact on communities, businesses, the natural and built environment. Construction will also increase the extent of overall adverse environmental impacts. Government and HS2 Ltd. need to keep a firm focus on the project from this perspective, ensuring that the decisions being made which will have lifelong impacts will be fair. Cheshire West and Chester Council urges the government to establish a regional ombudsman function to help ensure reasonable and proportionate measures are taken by the scheme.

12.3 It is impossible to comment on environmental and equality impacts at this stage of the scheme, based on the whole life of this project. This needs to have periodic and ongoing review and be structured so that all people, including under-represented groups, understand impacts and what decisions they can influence.

