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High Speed Rail (London - West Midlands) Supplementary Environmental Statement and Additional Provision 2 Environmental Statement (July 2015) Consultation

Introduction

Staffordshire Wildlife Trust (SWT) is the leading nature conservation charity in Staffordshire that is concerned with all aspects of nature conservation. Through our planning work we seek to protect and restore important wildlife and habitats, achieve creation of new habitats, encourage public enjoyment of nature and promote sustainable development and land use.

SWT is part of the HS2 Ecology Technical Group, formed in May 2013, to provide the means for engagement, consultation and information sharing to achieve the best possible outcome from HS2 for ecology. The Group is comprised of non-governmental organisations, local authorities and statutory bodies. The Group's full Terms of Reference and members can be found on the National Trust's HS2 web pages.

Non Technical Summary

There is no summary of the overall changes in land-take, habitat loss, or habitat mitigation/creation for each CFA, which would be useful. As the SES and AP2 ES concentrate on only 'significant' changes, the overall total effect of changes is not presented.

CFA21 Pg 60 The descriptions of losses to Fulfen Wood and Little Lyntus ancient woodlands are different within the Cultural Heritage and Ecology paragraphs, particularly for Little Lyntus which is described as being 'completely removed' and suffering a 'loss of 0.05ha' respectively.

CFA21 Ecology page 115 states that regarding Rookery SBI, AP2-021-001 'will require approximately 0.9ha less of the ancient woodland'. This should be 1.1 ha less; the new total loss is 0.9ha as reported in the CFA 21 report.

Route Wide effects pg 167

This states that the AP2 amendments will result in habitat loss from only one additional ancient woodland - Big Lyntus (0.9ha) in CFA22. This is not true as they will also cause in losses from Little Lyntus, now considered to be ancient, which was avoided by the original route.

Volume 1: Introduction and methodology

8.1.3- 8.1.4 Explains the definitions of compensation and enhancement used within the ecological assessment methodology. 'Compensation' describes measures that address specific residual impacts and provide, as far as possible, direct replacement of habitats lost or affected. The term enhancement is defined as new measures of biodiversity benefit that are unrelated to any adverse effect of the scheme. This is in line with the definition of enhancement provided by the Chartered Institute of Ecology and Environmental Management (CIEEM). The term 'enhancement' has been used within the Volume 2 CFA reports where the restoration of a habitat area which is not affected by the scheme, but is of similar type to one that is, is proposed in order to improve its condition. This is not intended to imply that these environmental benefits would lead to a net positive effect on an ecological receptor affected by the scheme.

We feel that this is still not clear in terms of net impact to ecological receptors. It should be made clear that enhancement of existing habitats is another method of compensation, and where it does not provide a net positive effect, it should not be referred to as enhancement in terms of the mitigation hierarchy (avoid, mitigate, compensate, enhance). Restoration and management of unaffected habitats, particularly ancient woodland, is something we have called for as an important part of compensation; indeed a priority before habitat creation. It should therefore be clearly referred to as, and included in, compensatory measures. If it provides biodiversity offsetting units then it is providing compensation in the same way as turning a poor habitat into a more diverse one through creation. If enhancement is taken to mean 'new measures of biodiversity benefit that are unrelated to any adverse effect of the

scheme', i.e. a net gain, then this should only be used where there will be a net gain once residual impacts have been balanced.

The Methodology does not explain how will gaps due to lack of ecological survey will be dealt with in future, or whether there will be continued updating of desk study data from records centres, and planning applications.

Volume 1: Glossary of Terms

There is no explanation of “ecological woodland habitat creation” or “landscape woodland planting” and what these types of habitat will involve in terms of creation methods, management and final value for biodiversity. Function is described in the Map Book Data dictionary and definitions but not how these areas relate to existing habitat definitions. Without this it is not possible to judge how far provision of these woodlands would compensate for existing woodland losses. There is no additional term for woodland created using translocated ancient woodland soils, which would be specifically to compensate for such loss, and would, presumably, be different to that used for most creation areas. Ideally however, all woodland planting would have value, and ‘standard’ ecological woodland creation could use many best practice measures such translocation of soils, plants and deadwood from woodland to be lost. We request further details are provided as to how these areas will be created and managed, what Phase 1 habitat type they would be referred to, and the target value for these, in line with standard EIA methods of habitat evaluation.

Volume 2: Community Forum Area (CFA) reports and map books

Volume 5: Appendices and map books

As we have examined ecology issues within Staffordshire, this being CFA21 and CFA 22, it has been necessary to cross-reference the relevant reports and map books for these areas. We therefore comment on each CFA and list the relevant documents. However the following points apply to both CFAs.

Restoration and management of designated sites as habitat compensation

Apart from some habitat within Snake’s Hill and River Oxbow, Black Brook SBI, there are no proposals to restore, improve or manage retained areas of designated sites and ancient

woodlands as part of habitat mitigation and compensation provision, either by including them within the bill limits, or by agreement with the landowners. As these are existing habitats that will not entail a change in use, and the landowners are known to HS2, this is an obvious, relatively easy and also ecologically valuable option. This is particularly true for ancient woodlands, for which there is no way of mitigating or compensating like-for-like through habitat creation, and the most beneficial measures would be to restore, buffer, link and manage existing ancient woodlands, including those nearby not impacted directly, that may have been degraded through plantation. It may be, should these measures provide sufficient biodiversity offsetting units, that land-take of agricultural land for habitat creation, in less ecologically beneficial areas, could be reduced.

This issue was raised in our comment on the original ES, and through our petition, which was heard on 22 October 2014. At the hearing, Mr. Miller made comments in para 365 that in terms of mitigation or compensation measures, that a good number of issues may be resolved through additional provisions, including ecology in the light of taking up agricultural land, and that 'different arrangements' might be possible.

We request that as part of future additional provisions, areas of designated sites and ancient woodlands are included in the bill limits for restoration and management purposes in order to deliver the most effective compensation.

Protected and Priority Mammals

No surveys for Pine Marten in potentially suitable habitat have been undertaken, despite evidence of the need for this being presented by us to the HS2 Select Committee on 22 October 2014. At the hearing, Mr. Miller confirmed that pine marten had not been identified as a relevant species due to the records in Staffordshire being outside of the 5 km search radius used (para 356), and that HS2 recognised that there were gaps in survey information that would be redressed through supplementary environmental information and tied in with the additional provisions para 361). Sir Peter Bottomley made the point in para 401 that 'if nobody's put up den boxes to see if there's any pine marten scat, it's time to do that.' and Mr Mould QC (DfT) replied (para 402) ' I hope I've indicated that surveying is work in progress.'

No surveys, or assessment of potential impacts to, mammal species of principal importance or deer have been presented, or the reasoning behind this.

CFA21 - Drayton Bassett, Hints and Weeford

- Volume 2 Community forum area Report CFA21 Drayton Bassett, Hints and Weeford 3.2.1.21
- Volume 2 Community forum area Map Book CFA21 Drayton Bassett, Hints and Weeford 3.2.1.21
- Volume 5 Technical Appendices Map Book Ecology CFA21 Drayton Bassett, Hints and Weeford 3.5.13.16
- Volume 5 Technical appendices Ecology CFAs 16-22 Appendix EC-001-003

DESIGNATED SITES

Waggoner's Lane (Hedge 1) SBI

400m (55%) of the hedge would be lost, resulting in a permanent adverse effect significant at a county/metropolitan level. This does not appear to be affected by AP2 amendments as this SBI is not discussed in the CFA report. In the original ES the hedge is proposed to be translocated to a landscape planting area south of Bangley Lane contiguous with the retained part of the hedgerow.

As part of our petition in October 2014, we requested an alternative compensation option: to translocate the hedge with additional planting between the remaining hedge and the nearby Brockhurst Wood ancient woodland. This would achieve a more beneficial habitat link to better compensate the hedge's original corridor function. HS2 agreed to look into this, but this has not been included or discussed in any of the documents. We request information on whether this has been investigated and if it will be included as part of future additional provisions.

Roundhill Wood SBI and Ancient Woodland

From plan CT-06-120 it appears that some adjacent planting has been altered from landscape planting to ecological woodland habitat creation totalling around 0.7 ha; however contrary to paragraph 5.1.34 in the CFA21 report, this habitat creation does not link the Brockhurst Lane green overbridge with Roundhill Wood, as most of the landscape planting remains in between. It may be that this has been shown incorrectly on the map, but the woodland habitat creation area needs to be extended to replace landscape planting.

Rookery SBI and Ancient Woodland

The Drayton Bassett to Hints area amendments (AP2-021-001) reduces the loss of ancient woodland on the eastern side by 1.1ha, from 2.0ha to 0.9 ha (from 27% to 12% of the total SBI). From CT-06-120 it appears that approximately 0.2 would be lost to the actual track and cutting slope, but a large area is still within land potentially required for construction. It is not clear what impact this area will suffer, and whether it could be restored. No restoration of the retained areas is proposed.

Additional woodland habitat creation and landscape mitigation planting to the south and south-west of Rookery Wood is welcomed, although we request that consideration is given to restoring and managing nearby degraded ancient woodlands as well as providing new planting.

The Brockhurst Lane green overbridge as shown on CT-06-120 appears to be a narrow bridge with a lane and a single hedgerow, which is not sufficiently wide with enough habitat to qualify as a green bridge and provide a well-functioning link for all species, particularly bats. A wider green overbridge is recommended with at a minimum a double hedgerow to create a more sheltered bat commuting corridor. Such a bridge is proposed as part of AP2-014-006 in CFA14 to mitigate effects to bats using Helmdon Disused Railway SSSI.

Snake's Hill and River Oxbow, Black Brook SBI

The SBI designation has been extended to include additional habitats, some of which were identified in the original ES as of county value. The LWS will now be subject to an adverse effect significant at the county/metropolitan level, but the actual area of habitat affected is unchanged from that reported in the original ES- 2.6ha of species-rich rush pasture and swamp habitat. 6.6ha of the SBI is 'within land required for construction'. Therefore no additional mitigation is proposed other than the original 'grassland enhancement and creation in adjacent fields' which was stated in the original ES to be 4ha of species-rich grassland creation. Map CT-06-120 shows the grassland habitat creation area has changed in shape slightly, extending further to the south and also covering parts of the landscape earthworks. The CFA report states that the overall area of grassland creation and enhancement has been increased to a total of 6.5ha, which includes 2.1ha of the SBI grassland which would be enhanced and managed rather than existing habitat being removed and new habitat created. This leaves 4.4ha of new grassland creation outside the SBI boundary, which on embankments the CFA report states will be dry, but 'over 2ha' would be on level ground where wet grassland would be possible.

This information indicates that of the 6.6 ha of SBI within the construction boundary, 4.5 ha would be permanently lost and 2.1 ha impacted in some way but then enhanced. The 4.4 ha of new grassland is therefore less than that lost, and includes only around 2.4 ha of wet grassland. Although all species-rich grassland is of value, this is not enough appropriate compensation. We request the area of wet grassland is increased.

We feel that losses to the SBI could actually be reduced by amending the design. Much of the grassland is to be lost under landscaped earthworks which extend some 80m to the east of the track- it is recognised this is probably for landscape purposes but if these were made steeper, it would avoid more of the SBI. On the western side, around 0.7 ha of the SBI is lost to a small balancing pool and associated access/ maintenance track with embankments. This seems an unnecessary loss when the pool could be located on less valuable habitat or the larger pool to the south potentially enlarged. This would also cut the amount of construction needed. This western piece of grassland is also less diverse and would benefit from enhancement. Required balancing ponds, or more shallow wetland features, may be more appropriate located on the eastern side within wet grassland creation if they help contribute to its diversity. Their location on the western side however begs the question that if water is required to be balanced on this side, this and the track construction has potential to intercept water draining towards the Black brook and change the hydrology of the rush pasture and swamp.

We request amendments are made in this area to minimise loss of habitat in the SBI, that measures to maintain hydrology of the wetland habitats are included, that balancing ponds are located/ designed to provide maximum habitat benefit, and that compensatory wet grassland creation is at least equal and ideally greater than that lost, in addition to enhancing any retained areas within the construction boundary.

Black Brook Corridor: Black Brook Bridge – Heart of England Way BAS

This site is wrongly described in the CFA report at 5.1.136 as being ‘within 500m of the land required for the construction of the AP2 revised scheme’ when in fact 0.4 ha of this wildlife site, consisting of Black Brook and its banks, is within land required for construction and part is crossed by the proposed Black Brook Viaduct. Replacement floodplain storage areas are also proposed close to the site, and the balancing pond just to the north of the brook has been enlarged due to AP2 which brings it very close to the brook. The original ES described the site accurately and discussed potential impacts but concluded no significant effects were expected. The CFA report states that there are no amendments affecting the site. This should be reviewed and information corrected.

Bourne Brook Corridor, Ford (Oxbow Woodland) to Botley House BAS; Bourne Brook Corridor, Botley House to Bourne Bridge BAS; and Rough Leasow SBI.

These sites appear not to be directly affected. We would like to correct that Rough Leasow, while most of the site is registered ancient woodland, is not currently an existing SBI, as there has been no access granted to survey it since initial assessment in 1974. It has high potential to be an SBI and is recorded as having an historic or past designation, but due to the lack of up-to-date survey data it cannot be assessed against the current criteria and therefore cannot be officially designated as a Local Wildlife Site.

Moor Covert and Pool SBI

Due to an amended drainage design in the Swinfen cutting area (AP2-021-004) a new permanent adverse effect significant at up to county/metropolitan level is now predicted at this site located at SK145054. Rather than an infiltration trench, a pipe is proposed adjacent to the SBI, discharging downstream of the woodland into the pool. The stream within the woodland would effectively be cut off from its catchment east railway route as this section is in cutting, and therefore it is uncertain whether it may dry out over time and alter the character of part of the wood. The CFA report does not discuss mitigation, but the Non-technical Summary states that 'No further mitigation measures have been identified at this stage, but future hydrogeological studies may inform potential mitigation measures.' Neither CT-05-122 or CT-06-122 show where the pipe will be located- this should be made clear.

Aerial photos show a line across the arable field to the east of the SBI, which appears to link the start of the spring on the edge of the SBI to a fence/ hedge line on the eastern side of Jerry's Lane. This may therefore be a land drain. CT-06-122 shows a new ditch along on the western edge of the railway – this could potentially feed into the remaining land drain to maintain flows. We also recommend that further habitat compensation could be achieved if the SBI could be improved/ restored and managed through agreement with the landowner.

HABITATS

As with the original ES, there are no total figures for the areas of each habitat to be impacted, or habitat creation/ compensation work provided in the SES, to be able to see clearly the impacts of the scheme or compare the AP2 amendments to the original scheme. We request this information is provided.

Copse off Drayton Lane

This unnamed woodland of 1.93 ha at SK169002 was surveyed further on 1 May 2014 and found to have characteristics of ancient woodland- it is now valued at district/ borough value rather than local/parish. The CFA report does not state whether it is now considered to be ancient, but the Ecology appendix EC-001-003 states 'This copse is considered likely to be a remnant of ancient woodland.' The wood is not shown within the CFA21 Ecology map book EC-01 Designated Sites maps, and this needs to be corrected.

The copse is likely to qualify as a Local Wildlife Site. There is not however enough detail in the Ecology appendix EC-001-003 to be able to assess it against the current Staffordshire criteria. Currently, any site included in the Ancient Woodland Inventory, or sites of a certain size scoring adequately against the flora species checklist or supporting certain NVC communities, qualifies as a Local Wildlife Site. The wood is mapped in the original ES Ecology map book as broad-leaved semi-natural woodland, but has not been confirmed as ancient, and has not had an NVC survey, and no comprehensive species list or abundances is presented. Of the species reported within the wood, 5 are in the woodland flora checklist for Staffordshire LWS (bluebell (*Hyacinthoides non-scripta*), water avens (*Geum rivale*), wood mellick (*Melica uniflora*), dog's mercury (*Mercurialis perrenis*) and wood speedwell (*Veronica montana*)) although more may be present and not reported. We therefore suggest the copse may be of county/metropolitan value, and request the raw survey data is provided to assess this, and/or that HS2 assess the woodland using the current Staffordshire Local Wildlife Site criteria.

All the woodland is within land required for construction, however it is not stated what area will be lost, or the level of further clearance or edge effects that would occur to the severed edges of the habitat. The layout shown on CT-06-117 appears to show around 0.8 ha (our measurement) of the copse will be lost to the realigned Drayton Lane with associated embankments and a new ditch, leaving a piece of woodland on each side of the road. The revised impact is now assessed as permanent adverse significant at the district/borough level. Additional mitigation is proposed via changing approximately 2.4 ha (our measurement) of the landscape woodland planting adjacent to the remaining wood to ecological woodland habitat creation. As the woodland is likely to be ancient then this proportion of loss to creation is not adequate. No restoration or management of the remaining woodland is proposed.

AP2-021-001 includes lowering of Drayton Lane and Shirrall Drive by 3.2 m, which appears to have reduced slightly the land-take in the copse from embankments compared the original design. According to 5.1.24 in the CFA report it has also reduced land-take by 1.8ha in this area,

although it is not stated how this has changed the area of landscaping or habitat creation provided

The impact to this wood could be entirely avoided by moving the proposed Drayton Lane and Shirrall Drive re-alignment either slightly north or south. We request the horizontal alignment is changed to avoid impacts to the copse with at least 1ha of ecological woodland created adjacent to buffer and link the habitat, and the copse restored and managed as part of overall biodiversity compensation.

Gallows Brook near Drayton Lane

In the Appendix EC-003-003 CFA 16 to 22: Register of local level ecological effects there is reported a permanent loss of habitat (approximately 50m) and severance of watercourse and its corridor through culvert placement. No mitigation is proposed – this should be compensated by adding length to retained sections of brook via meanders, and general habitat restoration.

SPECIES

Bats

The Natterers bat population at a farm near Hints, originally assessed as being of county/metropolitan value, has been revised to regional value, due to evidence from planning application surveys which concluded the usage was a maternity roost rather than just a summer roost. A bat house was included in mitigation in the main ES and this would be suitable for a maternity roost so no additional mitigation is proposed.

CFA22 – Whittington to Handsacre

- Volume 2 Community forum area Report CFA22 Whittington to Handsacre 3.2.1.22
- Volume 2 Community forum area Map Book CFA22 Whittington to Handsacre 3.2.2.22
- Volume 5 Technical Appendices Map Book Ecology CFA22 Whittington to Handsacre 3.5.13.17
- Volume 5 Technical appendices Ecology CFAs 16-22 Appendix EC-001-003

DESIGNATED SITES

Big Lyntus SBI and Ancient Woodland

Approximately 0.77ha of Big Lyntus SBI (11.5% of the 6.7ha SBI) is within the land required for construction of the AP2 revised scheme due to the realignment of the route to the west along with realignment of Wood End Lane. This loss, plus the severance of linkages to other designated sites, will have a new adverse effect significant at a county/metropolitan level. To compensate for the loss and losses from Little Lyntus, there is 2.6ha of woodland habitat creation adjacent to Big Lyntus, 0.56ha between the route and the Manchester spur to the east and 0.75ha between the route and the realigned Wood End Lane to the west- this totals 3.91 ha.

Firstly, much of the impact on Big Lyntus, plus the severing effect between it and Little Lyntus, could be avoided by removing the realigned section of Wood End Lane and connecting the eastern and western halves of the lane under the Curborough Brook Viaduct. Netherstowe Lane could be either cut off or reconnected via a less damaging route. We request amendments are made to avoid impacts to Big Lyntus. Secondly, more ecological woodland habitat creation should be provided to link Big and Little Lyntus, creating a continuous link at least 100m wide at all points (to ensure core woodland without edge effects in the centre).

Impacts to notable breeding and wintering birds in the wood have not been raised as an additional impact in the CFA report or Appendix EC-003-003—this needs to be included.

Wood End Lock (south-east of) SBI

The site of 1 ha will be entirely lost to the AP2 revised scheme, a permanent adverse effect significant at a county/metropolitan level. It does not appear that any mitigation/compensation is stated or shown on CT-06-127. Replacement wet woodland must be provided where hydrology can be managed appropriately to sustain this.

Ravenshaw Wood, Black Slough and Slaish SBI and part ancient woodland

The AP2 revised scheme will result in permanent loss of 5.8ha, 26% of the 22.3ha SBI. Ancient woodland will be lost in Ravenshaw Wood but that within the Slaish will now be avoided. This is

reported as an adverse effect significant at a county/metropolitan level. Given the importance of the site for bats however, the significance should be regional.

Due to the findings of bat surveys that the woodlands support a regionally important assemblage of bats with 12 species recorded, along with many notable birds, several plants and invertebrates, we advise HS2 to consult with Natural England as to whether the site should be designated a SSSI in light of the current Designations Strategy which seeks to review the SSSI suite and ensure it is representative and robust.

Tuppenhurst Lane (west of) SBI

There appears to be no change to the loss of 0.13ha from the edge of the site, 4% of the 3.18ha total. AP2-022-001 'Lichfield area amendments' have resulted in several changes here, but they are not discussed in the ecology section of the CFA22 report. CT -06- 130a shows a small area of grassland habitat creation adjacent the SBI has been substituted for the original landscape planting, and a balancing pond has been relocated adjacent the site with further landscape planting. This provides better compensatory habitats than previously, although we would request that grassland or wetland habitat around the pond would be better than landscape planting to link with the existing wet grassland.

HABITATS

Little Lyntus Ancient Woodland

This site of 1.43ha at SK136127 was surveyed on 28 May 2014, is considered likely to be ancient woodland and is now valued at up to county/metropolitan value rather than the original local/parish value. The wood is not shown within the CFA22 Ecology map book EC-01 Designated Sites maps, and this needs to be corrected.

Little Lyntus is very likely to qualify as a Local Wildlife Site. There is not however enough detail in the Ecology appendix EC-001-003 to be able to assess it against the current Staffordshire criteria. Of the species reported within the wood, 12 are in the woodland flora checklist for Staffordshire LWS (wild apple (*Malus sylvestris*), small-leaved lime (*Tilia cordata*), moschatel (*Adoxa moschatellina*), wood anemone (*Anemone nemorosa*), remote sedge (*Carex remota*), pignut (*Conopodium majus*), bluebell (*Hyacinthoides non-scripta*), yellow archangel

(*Lamium galeobdolon*), dog's mercury (*Mercurialis perennis*), wood millet (*Milium effusum*) greater stitchwort (*Stellaria holostea*) and red currant (*Ribes rubrum*) although more may be present and not reported. We therefore request that the raw survey data is provided to assess this, and/or that HS2 assess the woodland using the current Staffordshire Local Wildlife Site criteria.

The CFA report states at 11.4.48 that as much as practicable of Little Lyntus ancient woodland will be retained, but for the purposes of assessment the worst case scenario of complete loss has been Assumed, giving a permanent adverse effect significant at up to a county/ metropolitan level. At 3.2.29 however a figure of 0.05ha is given for permanent loss, with the remainder (1.35ha) retained. Map CT-06-127 appears to show around half the woodland, about 0.72ha lost and the remaining areas split by the track.

As well as increasing the amount of woodland habitat creation to link with Big Lyntus, all planting within 100m of the remaining parts of Little Lyntus should be woodland habitat rather than landscape planting.

Fulfen Wood Ancient Woodland

Fulfen Wood has been valued as up to county/ metropolitan value. The proposed loss of 0.43ha of the wood (41%) is a permanent adverse effect significant at up to a county/ metropolitan level. The wood will qualify as a Local Wildlife Site, as it has been added to the ancient woodland inventory.

Plan CT-06-125 shows 1.1ha of woodland habitat creation adjacent to the retained part of the wood, linking it to other planting, but not continuing around the whole wood. To better buffer and link the wood we request at least 50m of woodland creation is added to the eastern side to surround the wood. Although around half of the western part of the wood is shown to be covered by the proposed track, the rest is under an embankment which appears to slope fairly gently. If a wall similar to that used at Rookery Wood were to be used, this may enable some of the ancient woodland to be retained, and this should be investigated.

Woodend Lane (hedge 1) BAS

This site was not originally impacted, but is mostly within the land required for construction which may result in damage to or loss of the majority of the hedgerow. As a precaution impacts

are assessed as adverse effect significant at a country/metropolitan level. Suitable sections of Woodend Lane (hedgerow 1) SBI will be translocated. This should be into locations where the habitat can provide a linking function as before, and not as part of woodland planting.

SPECIES

Bats

Impacts on the assemblage of bats using the Trent and Mersey Canal and adjacent woodlands (Ravenshaw Wood, Black Slough, the Slaish and Fradley Wood) will result in an adverse effect on the conservation status of the assemblage, significant at a regional level.

We support the comments made by Staffordshire County Council with respect to impacts and proposed mitigation/ compensation and monitoring for bats. We request a working group is set up with appropriate local and national bat experts to input further to the plans for this area.

Amphibians

New information on great crested newt and assumed populations from collated desk study data is welcomed, however it would appear that records from the planning application 08/00324/OUTM as well as other records held by Staffordshire Ecological Record have not been used, as ponds where GCN have been recorded have been scoped out, particularly the pond near Fradley Wood at SK1411313273 where GCN were recorded in 2007 and 2011, and an individual GCN recorded at the Skid Pan at SK139126. Data should be reviewed and further surveys conducted as necessary.

Volume 4: Off-route effects

3. Modifications to the West Coast Main Line between Lichfield and Colwich

Volume 4 of the main ES stated regarding ecology that:

‘due to the relatively minor nature of the works and due to lack of land access, an extended Phase 1 habitat survey has been carried out only from public rights of way (PRoW), supplemented by a desk assessment.’

It is disappointing that no further survey effort appears to have been undertaken in these areas, when a stand-alone project of this type would be required to carry out habitat and species surveys.

Additional land on the WCML for track modifications east of Colwich (AP2-000-002)

The SES and AP2 ES Volume 4- Off-route effects report states that this provision is not considered to make changes that require a reassessment of the environmental effects or proposed mitigation as set out in the main ES with respect to ecology. However, the increased land-take shown on CT-05-146 would appear to potentially affect Bishton (north of) Biodiversity Alert Site (BAS); diverse hedgerows running either side the lane from Bishton to Moreton Grange. The hedgerows to the south of the railway also have potential to be diverse, but have not been assessed since 1979 when a section adjacent the railway was identified as of value. The potential impacts in this area need to be assessed through appropriate surveys, and measures to compensate and enhance habitats included.

Additional land for construction access east of Colwich (AP2-000-003)

Ecology impacts have been assessed for this provision. The changes would appear to reduce impacts, as the original design resulted in the loss of 0.1ha of trees and scrub, and one crane platform was within agricultural land to the north of the railway, which has recently been identified by SWT as having potential as a Local Wildlife Site- survey information is still being assessed and the final area to be designated here will be decided in December 2015.

The AP2 revised scheme will result in the loss of a short (less than 10m) length of hedgerow and similar length of mature and semi-mature trees. Opportunities for habitat restoration should be sought.

Additional land for construction access east of Colwich for revised signal gantry location (AP2-000-004)

Ecology has not been considered to require reassessment for this amendment. However, 'Colwich railway cutting' Grade 2 Geological Site which is an example of Keuper Sandstone is present in this location. The cutting has also never been surveyed in terms of potential LWS

status and so could also have ecological value. These issues should be assessed through appropriate survey.