



The Network Rail (East West Rail Bicester to Bedford Improvements) Order

Transport and Works Act 1992

The Transport and Works (Inquiries Procedure) Rules 2004

POSITION STATEMENT

Prepared by

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Ecology – Protected Species

9th April 2019

1. Introduction

1.1 This document provides an updated position statement for the Inquiry following the exchange of Proofs of Evidence in January 2019 and the subsequent receipt of additional information – including draft licence applications and strategies - and ongoing discussions with East West Rail (EWR). This position statement should be read in conjunction with Natural England's Proof of Evidence (PoE, Document reference OBJ/242). The document considers the adequacy of the survey/baseline information, EWR's consideration of its scheme's impact assessment and the robustness and sufficiency of the mitigation and compensation secured for the impacted ecological receptors. The main issues raised in my PoE were as follows:

- a. the ecological impact on bats;
- b. great crested newts;
- c. otter;
- d. hazel dormice;
- e. water vole;
- f. badgers;
- g. adequacy of the Ecological Compensation Sites;
- h. the long-term management and maintenance of Ecological Compensation Sites;
- i. No net loss and provision of biodiversity net gain.

Further Information received

1.2 Natural England (NE) responded in the pre-application consultation and raised a number of concerns on Ecology in its Statement of Case on 22 October 2018. Since that time NE has engaged, wherever possible, in practical dialogue with EWR's consultants to overcome these objections.

1.3 Following the start of the inquiry, three new documents concerning the provision of Net Gain. These were:

- NR207 – Client instruction to progress biodiversity net gain within EWR Phase 2 (18 December 2018);
- NR208 – Network Rail's formal response to biodiversity instruction (31 January 2019); and
- NR209 – Confirmation of EWR's acceptance of biodiversity instruction (5 February 2019).

1.4 Since the exchange of evidence between NE and EWR in January a further suite of documents comprising draft licence applications (route-wide and section/habitat specific),

mitigation strategies, baseline data and briefing notes on specific species and further information requested have been supplied to NE right up until 5 April 2019. The additional information provided to NE since the start of the inquiry is as follows:

- a. Scheme-wide Strategic Bat Mitigation Approach and appendices (received by NE on 28 February 2019);
- b. Draft licence application for bat roost at Swanbourne Station (received on 22 February 2019);
- c. Draft licence application for route-wide bat licence for low/moderate status roosts (received on 19 March 2019) (23 documents containing information on the level of survey undertaken at potential roosts, predicted impacts and proposed mitigation, compensation and monitoring).
- d. GCN compound and enabling works licences for (received between 15 February 2019 and 27 February 2019):
 - Section 2A, A2 compound;
 - Section 2A, A3 compound (e-mail setting out proposals);
 - Section 2B/C, enabling works;
 - Section 2B/C, B1 compound;
 - Section 2B/C, B3 compound;
 - Section 2B/C, B4 compound;
 - Section 2B/C, B6 compound;
 - Section 2A, A4 compound.
- e. Two draft licence applications for GCN for Route Sections A and B (sent on 28 February 2019 and 01 March 2019, respectively);
- f. Two draft licence applications for GCN for Route Sections D and E (sent on 10pm on Friday 15 March 2019, received 18 March 2019);
- g. Draft licence application for otter (received on 22 February 2019);
- h. Further information/briefing notes regarding otters (survey, species impacts and mitigation) from Dr Stephanie Wray (received on 14 March 2019);
- i. Further information regarding Hazel Dormice from Dr Stephanie Wray (received 20 February 2019);
- j. Further information in relation to Water Vole from Dr Stephanie Wray (received 20 February 2019);
- k. Draft licence application for badgers (received 20 February 2019); additional information badgers including bait marking results, land parcel access (received on 20 and 21 March);
- l. Bat Radio-tracking data (received on 4 April 2019);
- m. Collision Risk Analysis/technical note (received late 8 April 2019).

- 1.5 Further information has been submitted to the inquiry NR238 about a potential alternative ECS at Moco Farm (B28).
- 1.6 NE has not had the opportunity to properly consider either the bat radio tracking data or the bat collision risk analysis/technical note which were recently received. It is not in a position to comment on whether these address the concerns raised in our objection.
- 1.7 Although NE appreciates a vast quantity of additional information has been provided, it is not necessarily the right information presented in a clear, transparent format that can be easily understood and scrutinised.
- 1.8 Wherever possible NE has sought to obtain the information in order to narrow the issues in dispute and facilitate the approval of the scheme. The purpose of this document is to indicate where matters have now been resolved and where objections remain.
- 1.9 This position statement sets out in relation to Ecology matters:
- (i) those issues which have now been addressed by EWR and are now matters of common ground;
 - (ii) those issues where NE maintains its objection.

2. Common ground

Hazel Dormice

- 2.1 NE sets out its objection and request for further information in relation to hazel dormice at 6.2.106 – 6.2.114 OBJ/242.
- 2.2 Further information was provided to NE by email from EWR (on 20 February 2019) which addressed our concerns about the completeness of the survey and the mitigation approach that would be necessary to adopt should dormice be identified in the Scheme Area. The information provided, enabled us to understand how the sampling strategy had been applied and to confirm that an appropriate rationale had been applied to the survey methodology.
- 2.3 Given the level of survey coverage, and the additional information provided, NE is able to accept EWR's conclusion that Hazel Dormice are most likely absent from the Scheme Area. NE is satisfied that sufficient information has been provided to inform the Environmental Statement for this species. We consider that this is sufficient to remove our objection.

Net Gain

- 2.4 Natural England welcome the client instruction from the Department for Transport and EWR company to deliver a net gain scheme for Western Section (Phase 2) of East West Rail (Bicester to Bedford). This represents a return to EWR's original commitment to deliver a net gain scheme. In addition NE welcomes the commitment to include a clear and binding planning condition to ensure delivery of a net gain scheme calculated using the latest Defra metric. Natural England is keen to finalise and agree a satisfactory form

of words for this condition. The current proposed condition requires revision. However subject to this, Natural England feels able to withdraw our objection in relation to net gain. The provision of biodiversity net gain is a separate and distinct issue from the adequacy of protected species and habitat mitigation and compensation on which objections are maintained.

Sheephouse Wood Site of Special Scientific Interest (SSSI)

2.5 NE raised concerns (OBJ242 Statement of Case para 3.3 – 3.6) about the proposed scheme's impact on the Sheephouse Wood SSSI. EWR have confirmed that, following survey, the limited area of the SSSI which would be subject to shading as a result of the presence of the mitigation structure does not contain habitat suitable for the notified butterfly species (either at larval or adult life stages). EWR has committed to providing new planting adjacent to the SSSI to mitigate any impacts that result from degradation of the edge of the SSSI due to increased shading. On that basis, NE is able to withdraw its objection on this point subject to a suitable planning condition.

3. Maintained Objections

3.1 Bats

Overview of objection on bats

3.1.1 NE's objections in respect of bats are set out at paragraphs 6.2.4-6.2.73 (OBJ-242).

3.1.2 Certain of those objections have now been resolved but as detailed below most remain outstanding.

3.1.3 Radio-tracking data was received on 4 April 2019. NE has not yet had a reasonable opportunity to assess this information which it has been requesting since late 2018. The information is important in enabling an understanding of how critical certain habitats within the red-line boundary are to the bat populations in the local area and therefore what the extent of the scheme's likely impacts will be.

3.1.4 EWR only yesterday provided NE with a copy of its Collisions Risk Analysis/Technical Note (CRA). This information, which NE have been requesting for some time, is important because without this it is not possible to see how EWR have reached their conclusions on the level of collision risk. The CRA will allow NE to determine which areas of the scheme, if any, could lead to levels of mortality which are above an incidental level or where there may be a risk of a decline in the conservation status of a population. The CRA is vital to ensure appropriate measures to mitigate the number of collisions are targeted in the right places (i.e. those with the highest levels of risk). Presently, it is uncertain that sufficient mitigation has been provided to mitigate the collision risk of certain species.

3.1.5 As a general matter, it should be noted that the draft licence applications and strategies cannot be considered in isolation from each other; the impacts on each bat species needs to be considered at a population level and cumulatively for the scheme as a

whole. For example, the impact on one particular bat species would need to consider, all together, direct and indirect impacts to roosts, temporary and ongoing disturbance through loss of foraging or access to foraging habitats and increased risk of mortality. Information within the draft roost licence applications, Strategic Bat Mitigation Approach, radio-trapping/tracking data and CRA are all relevant to this assessment.

3.1.6 On EWR's own case the Scheme will impact affect an assemblage of bats of Regional importance (NR54 PoE Stephanie Wray, Section 3.12.14 – 3.12.37). Given the significance of the bat populations in this area there is still uncertainty over the sufficiency of survey, mitigation and compensation measures. Until we have greater certainty, NE is not in a position to advise the Inquiry that the proposals are acceptable.

The principal areas of concern remain:

- Survey: The lack of adequate survey information and clear analysis of survey results and justification of the conclusions reached to inform the baseline. It is not possible to determine the impacts of the scheme on the bat populations without this information (see also 6.2.15).
- Mitigation and Compensation: concerns about the suitability and adequacy of mitigation and compensation measures to be utilised, the timeframes for their implementation (whether the measures can take effect in a timely fashion and meet EWR's own project timetable) and the current absence of legally enforceable mechanisms to secure their provision.
- Management, Maintenance and Monitoring: Lack of detail on and commitment to the management, maintenance and monitoring of mitigation/compensation measures and the planning and delivery of any future remedial mitigation measures which may be required.

3.1.7 As a consequence of the deficiencies in the ecological information provided and the lack of a reasonable opportunity to consider the additional information, NE is unable at this stage to determine (in certain cases) whether the scheme would trigger offences which would need to be licenced, and where licences are known to be required, whether those could be granted.

Surveys

3.1.8 NE's general objection on the provision of survey set out at 6.2.15 (OBJ-242) is maintained.

3.1.9 There are notable gaps in the survey and therefore there may be insufficient baseline survey. Until EWR is able to provide adequate justification for why the missing survey is not necessary to judge the likely impacts and inform the design, location, quantity and safeguarding of suitable mitigation and compensation (as well as provide an adequate baseline for post-development monitoring), NE has to assume that more surveys need to be completed before it could withdraw its objection to the scheme.

3.1.10 Where there have been constraints on surveying a particular area or feature, which give rise to gaps in the survey and baseline data, that requires clear and consistent justification. NE has concerns about the effort relating to certain survey methodologies and the justification for where survey has not been undertaken.

- 3.1.11 Where access to survey land was consistently refused (as is to be expected in the context of a large scale scheme) the absence of survey is understandable and acceptable. However, that does not explain all of the gaps in the survey. Where survey is lacking because access was refused on a single occasion or it was not possible to access a site on a particular day due to weather or other constraints, or there was just insufficient surveyor time, that does not justify the survey gaps.
- 3.1.12 The present level and quality of survey appears inadequate in respect of (a) bat roosts (b) foraging and commuting habitats for bats (c) operational impacts on bats.

Bat Roost Survey

- 3.1.13 NE maintains its objections in relation to the adequacy of the bat roost survey as set out at 6.2.16-6.2.23 of OBJ/242.
- 3.1.14 These objections relate in particular to:
- a. the significance of the gaps in the roosts survey particularly in relation to direct harm to roosts and indirect harm from vegetation removal. In a number of cases, the survey fail to characterise the conservation significance of the roost, by this we mean to identify the species using the roost, maximum count and roost type;
 - b. the lack of detail on follow-up surveys (for example, why the roosts identified by radio tracking have not been subject to emergence/re-entry surveys);
 - c. lack of explanation for incomplete survey or access restrictions.
- 3.1.15 Whilst there has been progress, in particular with the submission of the Strategic Bat Mitigation Approach (SBMA), that document acknowledges the need for further survey in the section on Existing Baseline Conditions. The SBMA provides at 3.5.1:
- 'On-going update surveys are proposed to inform the developing detailed design, including details of mitigation design and licences. These include hibernation surveys, monitoring of major roosts (maternity and/or hibernation) in trees and buildings and ongoing presence/likely absence surveys on trees and structures.'*
- 3.1.16 This would appear to accept the need for further survey to inform the baseline which is not yet properly understood. A clear understanding of the baseline populations and roosts is required to inform the design and location of any mitigation/compensation measures.
- 3.1.16 NE has completed its initial review of the draft route-wide bat roost licence. There remain significant gaps in the survey data which has not been adequately justified. Until NE has been provided with the results of adequate survey coverage for bat populations and bat roosts, it is unlikely that NE would grant a licence for the impacts on the bat roosts.

Survey of foraging and commuting bat habitats

- 3.1.17 NE's objection set out at 6.2.28 - 6.2.29 is maintained. That is, in summary, that EWR has not provided sufficient survey data to understand the bat populations in the impacted area of de-vegetation, how the bats use the existing habitat and how much of this habitat of greatest value to the existing populations will be lost as a result of the scheme. It is essential to have adequate baseline information of the population and current use of habitat before it can be known whether the proposed mitigation for the impacts is adequate.
- 3.1.18 In order to address the significant gaps in the baseline understanding of the bat populations, NE requested additional information, in particular the radio-tracking data, this was only received on the 4th April 2019. NE have not had the opportunity to properly consider this new information to see whether it addresses our concerns.
- 3.1.19 This information is important because it is essential to understanding the relationship between the bat populations and the habitat, and how critical certain habitats within the red-line boundary are to the local bat populations. Presently that understanding is lacking. The tracking data could identify additional roosts, inform the likely home ranges for various maternity colonies, and identify foraging behaviour and the use of key habitats. Against this background, the trapping data will provide additional needed detail about the prevalence and breeding status of certain species in the area. Until NE has the opportunity to assess this information it is not possible to determine whether sufficient survey has been undertaken to understand the impacts arising from the proposed loss of foraging and commuting habitat and therefore to determine whether sufficient mitigation has been proposed.
- 3.1.20 On the current assessment carried out by EWR, paragraph 5.1.4 of NR54 (Proof of Evidence Dr Stephanie Wray) provides that Route Sections 2A and 2B are likely to represent a critical commuting and foraging resource for bats roosting close to it. The clearance of significant quantities of vegetation from the railway corridor will result in the removal of a significant area of habitat of high quality. The negative effect of the proposed works will be significant up to a Regional scale. EWR further concludes at 9.5.97 of NR16 (ES Vol 2i Project Wide Assessment) that where brown long-eared bat, Natterer's bat, Daubenton's bat, whiskered bat, Brandt's bat and barbastelle are roosting close to the line (within 100 m), the existing railway line habitats are likely to form a significant proportion of each roosts' Core Sustenance Zone and form key commuting routes for bats within the roosts. As a result, the loss of the railway corridor could lead to the loss or break-up of such roosts if bats are no longer able to reliably reach their favoured foraging grounds, mating sites or hibernation roosts.
- 3.1.21 If the proposed mitigation measures in the SBMA purported to address a 'worst case' scenario, then further survey/data analysis might not be required. However, that is not what is being proposed under the SBMA. In some areas the suggested mitigation measures could lead to temporary or even permanent disturbance impacts on bats (for example, where planted vegetation will take time to mature, or permanent gaps in vegetated corridors are created). In these areas, EWR needs to either justify the sufficiency of its mitigation approach by demonstrating through further survey that it has the located maternity colonies and understands the relationship and dependence

of the colonies on the existing habitats or if they cannot do so, it will need to provide additional mitigation to that in the SBMA to ensure the functionality of the habitat at the time of impact.

Surveys of operational impacts

- 3.1.22 NE set out its concerns about the level of survey and analysis of the operational impacts of the scheme from the collision risk to bats at paragraphs 6.2.32-33 of OBJ/242.
- 3.1.23 The SBMA does provide some additional information on crossing points at paragraphs 4.4 and 4.5.
- 3.1.24 NE's outstanding concerns on operational impacts relate to (i) the level of survey on bat crossings and the insufficient interpretation of the data provided and (ii) the scale of the identified mortality impacts which, absent mitigation, is concluded to be "at a population level" (SBMA, 4.4.7).
- 3.1.25 As to the first concern, when building an overall picture of collision risk, EWR need to, but have not yet considered, the crossing point data analysis in conjunction with other data including where the maternity roosts are located in proximity to the Scheme, where key flight paths and foraging areas are located and whether this is likely to require bats to cross the line frequently. This is particularly relevant for those species which are unlikely to have been picked up with bat detectors used during the crossing point surveys (i.e. those bat species with quiet, low amplitude, echolocation calls).
- 3.1.26 The raw crossing point data on its own is of limited utility. The data requires interpretation and has not been presented in a way which considers the results in the context of the bat populations, identifies key hotspots, or makes clear if hotspots are not present. This is important because mitigation needs to be targeted at those hotspots where bats are foraging alongside the line or crossing the line. For example, there is little or no interpretation of the crossing point survey results in SMBA Appendix D, Figure C6a. There is no consideration from the bearings and observations as to how the bats maybe crossing the line, the graphs are not labelled in any meaningful way and it is not clear if the bat count at each cross point relates to one survey, the total for all surveys or an average. The average and maximum number of bats crossing on one night (above and below 5m) for each species at each crossing point has still not been presented.
- 3.1.27 It should be noted that the height of existing crossing i.e. the height observed during the surveys, is not necessarily indicative of the bats' crossing height during the operational phase, when changes to the height and density of boundary vegetation may alter bat flight behaviour.
- 3.1.28 As a result of the lack of interpretation of the crossing point data, there remains uncertainty that the proposed mitigation can successfully reduce the collision risks. Until NE has considered the CRA it is not possible to say whether these uncertainties can be addressed.

3.1.29 As to the second concern (level of impact), the SBMA states at paragraph 4.4.7, repeating earlier conclusions, that:

'...Myotis spp. on some sections, which potentially includes crossings by Bechstein's bats, could be at risk of mortality impacts at a population level due to their smaller populations and preferred crossing height.'

3.1.30 SBMA paragraph 4.5.3 provides that:

'This demonstrated an incidental risk of mortality equating to approximately three bats per year, of which at least two would be pipistrelles. The risk collision calculations will be supplied in a separate technical note.'

3.1.31 As NE have not seen this technical note (presumably the CRA), we cannot say with confidence that the conclusion on collision impacts is correct or that the mitigation measures proposed by EWR will be adequate to address the impacts.

3.1.32 If the level of mortality has been correctly assessed and is, in fact, likely to be three bats per year of which at least two would be pipistrelles, then NE would agree that this level is incidental. However, it is noted that EWR are still identifying a "population scale" impact on Myotis, without mitigation. If the level of impact is at a population scale that is unlikely to be *incidental*.

3.1.33 EWR have provided additional baseline data on Myotis trapping (see SBMA Table 4.3) which identifies that very low numbers of Bechstein's bats were trapped during any of the trapping sessions. This indicates that this species may not be crossing the scheme in large numbers. The Bechstein's numbers from the trapping data still needs to be considered in the light of all the results including the radio-tracking analysis and roost surveys. However, if that is right, then NE's concern (set out at 6.2.60 OBJ/242) over the collision risk for this species could be now be addressed.

Mitigation and Compensation for impacts on bats and bat habitat

3.1.34 The concerns set out at 6.2.37-6.2.67 (OBJ/242) in relation to mitigation/compensation for (i) impacts on roosts (ii) disturbance from lighting, noise and vibration and (iii) operational impacts remain, for the most part, outstanding.

Roost compensation

3.1.35 NE's objections to the roost compensation proposals are set out at 6.2.37-6.2.40 (OBJ/242). EWR set out its response to these points in the scheme-wide bat roost licence (received on 19 March). It is NE's view that sufficient information has still not been provided to conclude that the compensation proposals are sufficient. NE will provide EWR with a Further Information Request in respect of the draft licence application.

3.1.36 A draft licence application for the destruction of the Swanbourne Station roost was received on 22 February 2019. NE has reviewed the draft licence and in the main the proposals are satisfactory. However, there are some changes required before the draft

can be approved. NE and EWR have been seeking to address these points since mid-March. The outstanding points relate to the timing of certain works, levels of disturbance, and monitoring proposals. Subject to relatively minor changes it is considered that it is likely that this licence could be issued.

3.1.37 As set out above, the impacts of the various licensable activities and the various licences sought and mitigation strategies put forward in respect of each need to be considered at a population level and cumulatively as a whole. Whilst the Swanbourne Station draft licence may be broadly acceptable the impacts which are being licenced still need to be understood in the broader context.

Mitigation for loss of foraging habitat, commuting habitat and habitat fragmentation

3.1.38 This relates to the concerns raised in NE's PoE at 6.2.45 – 6.2.56 (OBJ/242).

3.1.39 Progress has been made in this regard. Appendices A, B and C and Sections 4.3 and 5.5 of the SBMA set out the vegetation clearance impacts and proposed mitigation in a much more detailed way than the Environment Statement. NE acknowledges the significant work by EWR that has gone into producing these documents and welcomes the refinement and reduction of the impacts.

3.1.40 It is now clear that significant lengths of vegetation can now be retained where previously EWR was assuming a "worst case" scenario which involved the loss of all vegetation within the rail corridor red line boundary.

3.1.41 However, the vegetation losses are still significant and questions remain (just as they did for the "worse case" scenario) as to whether the mitigation for those losses is adequate. Following the reduction in impacts to foraging/commuting habitats, NE has considered whether the proposed mitigation measures could under all circumstances, even where the baseline data on bat populations is missing, be sufficient to maintain favourable conservation status for all bat species. Our conclusion is that there are still significant uncertainties that need addressing.

3.1.42 The uncertainties arise because of the gaps in understanding the baseline about bat populations and the criticality of the existing vegetated corridor to those populations (see above). It is not just a question of how much vegetation is being lost but the quality of what is being lost and how important that it is to the existing populations.

3.1.43 Without a clear picture of how critical a function the existing vegetated corridor, or more specifically parts of the corridor, play for the local bat populations it not possible to conclude that the proposed mitigation is acceptable. The analysis must be presented in a cogent way that enables the existing baseline, impact and mitigation to be compared. For many sections of the Scheme the mitigation proposals are likely to be sufficient, however for areas of key significance to local bat populations, the proposals could still require further mitigation.

3.1.44 In three areas of the scheme (SBMA 5.5.15 - 5.5.19) there will be a permanent loss of vegetated railway corridor. In other areas there is likely to be a delay between the

impact of de-vegetation and the restoration of the functionality of the corridor, which could take up to 10 years.

- 3.1.45 It is difficult to conclude that the mitigation measures proposed for the de-vegetation will be suitable in all cases, on a route-wide basis, without understanding the baseline significance of the existing vegetation to the local bat populations, in particular the very best quality habitats along the mothballed Route Section 2B and Route Section 2A. Whilst there has been some comparison by EWR of the level of bat activity within various sections of the railway corridor and mitigation has been designed accordingly (Appendix C Mitigation register SBMA), there has been insufficient consideration of the impacts of habitat loss on the bat maternity colonies adjacent to the line and insufficient identification of those key sections of the corridor that are likely to be critical in maintaining sufficient foraging resource and connectivity for those colonies. Consequently, it is still uncertain whether there will be a temporary (or even some permanent) disturbance impact associated with these vegetation losses in Route Sections 2A and 2B on the particular populations who use them.
- 3.1.46 NE has sought to address this incomplete analysis and undertake its own comparison of the location of the *known* maternity colonies (identified within 100m of the scheme) against the identified impacts and proposed mitigation measures. However, even this does not offer a complete picture as there may be additional maternity roosts identified through radio-tracking, where the habitat losses have not been cross-referenced to the roost. Moreover, not all roosts have been surveyed or fully surveyed. EWR has identified in paragraphs 4.1.10-11 (Table 4.1 and 4.2) of the SBMA that there may be additional maternity roosts that are in close proximity to the line that have not yet been identified. If these roosts are in areas where the mitigation solution will take several years to become functional, this could cause temporary disturbance to the population and/or effect the favourable conservation status. In areas where there will be permanent gaps left in vegetation, this may mean that the FCS for those populations cannot be maintained.
- 3.1.47 Before the SBMA can be approved, several points need to be amended or clarified to enable a complete understanding of the impacts and mitigation proposed. It may be possible to address some of the following points in due course and by the time Inspector produces his report, however, other points may prove more fundamental and it will be necessary for the parties, going forward, to update the Inspector on which, if any points, remain outstanding. The points at issue are:

Comments on mitigation solutions

- a. Clarity over what is meant by 'cutting back' with regard to the various habitat types and specific route sections;
- b. Minimum requirements to be defined for the specification of the mitigation and compensation measures, e.g. hedgerow width, green bridge design etc.
- c. The SBMA, should clearly set out for both regulators and those carrying out the works, what is being proposed in terms of impacts and mitigation/compensation. There are inconsistencies between the text and the figures in the main document and the appendices, and these need to be addressed.

Gaps in understanding of what vegetation is being lost and what mitigation is being used

- d. Paragraphs 5.5.16-19 of the SBMA highlights three permanent gaps in vegetation created by the scheme where it is not possible to maintain connectivity between habitat or the intention is to discourage bats from using the corridor altogether. However, two of these gaps do not correlate with the mitigation solutions identified in Appendix C of the SBMA or in the scheme-wide bat licence E3-E4, Route Sections 2A and 2B. This needs to be addressed.
- e. As set out in NE's PoE at 6.2.49 (OBJ/242) when considering replacement habitats it is necessary to have regard to the quality of that habitat, its location and when it will become available. This has not been fully considered in the SBMA, for example at 5.5.13.

Comments on timescales in mitigation strategy

- f. It is still not clear where the newly created foraging habitats will be located within proximity to existing populations. In addition, paragraph 5.5.20 of the SBMA provides that: "*Vegetation clearance will take place between mid-August 2019 and the end of February 2020 in Section 2A, and between September 2019 and February 2020 inclusive in Section 2B.*" This is contrary to best practice. All trees with known roosts or moderate or high roosting potential would normally need to be removed outside of the hibernation period.

3.1.48 Finally, once the proposals in the SBMA (which differ from the original ES) are refined and finalised (subject to the above), they must be secured by a suitable planning condition.

Mitigation for Operational impacts

3.1.49 As set out above, EWR accept that without mitigation, operational mortality impacts due to collisions with trains could have a significant negative residual effect on assemblages of bat species (NR47, FEI Part 1 Main Report, Table 16.1). This impact is reduced to a local significance but only if the mitigation, which is accepted to be unproven, is successful at encouraging bats to fly over the railway at a height above the trains. This will only work if the mitigation is in the right places.

3.1.50 It appears that EWR are now proposing to be less reliant on the creation of 'hop overs' and more reliant on retaining existing vegetation. This measure, which will be applicable to bats using existing vegetation to cross at heights above 5m, is welcome provided the vegetation can be maintained at a suitable height on both sides of the rail line and any increase in the width between the canopies would not change the behaviour of the bats (i.e. the new vegetation would not increase the likelihood of bats crossing below 5m in height).

3.1.51 The CRA will need to demonstrate a clear understand of the existing populations, the ecology and behaviour of the species so that suitable mitigation measures can then be targeted in the right places. In particular, what is currently missing is the identification of key high risk areas for crossing bats.

3.1.52 NE will retain its objection (summarised at 6.2.66-6.2.67 OBJ/242) until such time that either, evidence has been provided that impacts are incidental and will not harm FCS

or that suitable additional mitigation measures have been proposed to ensure that the impacts are reduced to this level or removed altogether. A suitable safeguarding mechanism will need to be in place to protect the mitigation measures and the monitoring and maintenance of the same.

3.1.53 NE maintains the following specific concerns regarding the mitigation proposals to address collision risk:

- (a) The new foot and road bridges do not clearly correspond to the existing bat crossing points. This means that the introduction of the bridges (i.e. the new crossing points) may cause the bats to change height and or cross at a different point. This needs to be factored into the likelihood of their success and therefore any residual risk (see 6.2.62 OBJ/242).
- (b) In relation to the baseline data for maternity roosts within 100m of the Scheme (Draft route-wide bat licence application, Figure C5A C6D). The following exemplify the current deficiencies in the existing collision risk analysis and proposed mitigation:
 - Example 1 - There is a maternity Daubenton's roost (138.1_BT2_F001) and maternity brown long-eared roost (527.1_BS_F001) to the north of the line near Steeple Claydon (see Route-wide Bat Licence C5a-C6-D Known Roost_50m_100m_RedLine Map). The limited radio-tracking information that has been presented for this area (Fig 9.10 - Bat Radio Tracking) indicates that a bat or bats from these colonies are moving along the railway line in an east-west direction and crossing the line north-south direction. The potential impacts in this area appear significant with the creation of a new road overbridge. Bats are to be directed over the bridge by fencing and new planting. This could require bats to change both their existing crossing location and height. Mitigation measures tend to be more successful where existing flight paths and heights are maintained. Where important foraging habitat for brown long-eared bats is to be removed and the nearest compensation site is approximately 750m away to the east, which is a reasonably significant distance for this species, this will require bats to cross the line thereby increasing the risk of collisions. The mitigation solution for these populations is insufficient and has not yet been justified.
 - Example 2 - There is a brown long-eared maternity roost to the north-east of Winslow to the north of the line (see Route-wide Bat Licence C5a-C6-D Known Roost_50m_100m_RedLine Map). The 2016/17 radio-tracking data (Fig 9.10 - Bat Radio Tracking) and aerials indicate that the closest woodland blocks which are likely to be used for foraging are those to the south of the line. Crossing point surveys were not carried out in what appears to be a high risk location. There has not been adequate justification and mitigation for the likely impacts associated with collision mortality in this location.

Need to secure Management and Maintenance, Monitoring of Mitigation Strategy

3.1.54 The mitigation which is to be provided needs to be robustly monitored, managed and maintained (see 6.2.68 - 6.2.70 OBJ/242) and where required, remedial action taken.

- 3.1.55 The Swanbourne Station roost licence application and SBMA contain some welcome clarity on the proposed management and maintenance actions and population monitoring. However, additional scheme wide monitoring to that currently proposed will be necessary to ensure that favourable conservation status is being maintained and to identify any remedial action that needs to be undertaken. Subject to agreeing these changes the proposed bat monitoring plan could be approved.
- 3.1.56 Overall three years of post-development monitoring is proposed over a five year period, this is unlikely to be sufficient. There needs to be provision for the monitoring, management and maintenance of newly created habitats (including the proposed new planted vegetated corridor, fences, and new vegetation in the ECS), as well as remedial action if issues are identified or bats are not behaving as predicted. That provision should include a commitment to undertake additional surveys, as necessary, to determine the cause of the problem and take remedial action. There also needs to be greater clarity on the timing of post-construction surveys. Radio-tracking surveys post-development may also be required.
- 3.1.57 EWR has indicated that they would consider entering into an agreement under the Natural Environment and Rural Communities Act 2006 with NE to secure this provision. However, to date there has been no contact from EWR's solicitors to progress this.

Bat Mitigation Structure

- 3.1.58 As set out at para. 6.2.71 (OBJ/242), EWR has said it intends to extend the proposed HS2 bat mitigation structure across the EWR2 (MCJ) line to avoid the risks of collision-related mortality in that location (see NR16, Vol 2i Project Wide Assessment, 9.6.39).
- 3.1.59 The Department for Transport has now confirmed that as the funding organisation for both HS2 and EWR that HS2 is to lead on delivery of a 'preferred solution for a Bat Mitigation Structure (BMS) to cover both the HS2 and EWR railway lines' in the Calvert/Sheephouse Wood area. We welcome this clarification but highlight that a suitable legal mechanism to secure and safeguard the management and maintenance of this key mitigation measure is required. It must also include commitment to monitor, manage and undertake timely remedial action in respect of the BMS (should the BMS not be functioning as predicted). It is for EWR to provide details of how it will ensure the proposed BMS for its scheme will be delivered in collaboration with HS2 as indicated by the Department for Transport letter of 3rd April 2019, the current planning condition should be redrafted to reflect this need.

Conclusion on bat licences

- 3.1.60 At the present time, until the above objections have been addressed and all of the draft bat licence applications and mitigation proposals have been screened and fully considered together, it is not possible for NE to conclude that there would be no adverse effect on the FCS of the species concerned. It is, therefore, unlikely that, as things stand, the bat licences could be granted (see paragraph 6.2.72 OBJ/242).

3.2 Great Crested Newt (GCN)

3.2.1 Between 15 February 2019 and 01 March 2019, Natural England had received eight draft GCN licence applications from the EWR Alliance. Preliminary assessments have been carried out on these eight applications. A further two applications for Route Sections D and E were received 18 March 2019, the initial assessment of these applications has now been completed. NE has given verbal feedback to EWR these applications and requested further information for some of these applications (specifically the site compounds and Bletchley viaduct works).

3.2.2 The key point of concern is that due to the uncertainty surrounding both the impact assessment, and the baseline habitat within compensation sites, NE cannot be confident that the proposed quantum of compensation is sufficient. Therefore, until it can be demonstrated that FCS can be maintained, NE would not be in a position to grant the licences sought.

GCN survey

3.2.3 The draft licence applications have set out new survey information which has led NE to identify some specific issues with the survey effort which were not raised in our Proof of Evidence.

3.2.4 In Route Section 2A and 2D there are historical records for GCN in waterbodies which appear to be located within the red-line boundary. However, these ponds are not shown anywhere on the survey map and may not have been surveyed, it is not clear if they no longer exist. This could be important as it could increase the aquatic compensation requirements if GCN are breeding in these waterbodies. In addition, for Route Section 2B there are numerous discrepancies between the various survey tables and figures. This means that it is difficult to have absolute confidence in the results and therefore the impact assessment.

3.2.5 In Route Section 2C, Pond 984 is in close proximity to vegetation clearance works which are proposed to be carried out in an area with little capture effort. The impacts to any GCN utilising this pond are unclear. EWR have indicated that this pond is owned by Network Rail and therefore should have been surveyed. This information must be provided before any further judgement on the acceptability of the proposals in this area can be made.

GCN Impacts

3.2.6 NE's objection regarding impacts on GCN and the proposed compensation set out at 6.2.7 OBJ/242 is maintained with the exception of EWR's proposals about the ongoing management of the lineside habitats which is accepted.

Cumulative impacts on metapopulations

3.2.7 Cumulative impacts on metapopulations have now been addressed in some, but not all, draft licence applications. For example, the cumulative impacts of nearby developments including those completed, in construction, or proposed (e.g. Berryfields mixed use development and HS2) relating to Route Sections 2D and 2E has not been fully considered in the impact assessment. This is important because the same metapopulation may be subject to numerous impacts and the success of the mitigation and compensation measures proposed for any one development may be compromised by a

subsequent development. The viability of these populations may also be subsequently reduced.

3.2.8 In addition, the Masterplans for Route Sections 2A and 2B have not yet addressed how the draft licence proposals deal with impacts that could take place on the same metapopulation but during different phases of the Project. NE anticipates that this could be addressed through revisions to the capture and exclusion proposals.

GCN Mitigation and Compensation - ECS

3.2.9 Ensuring that sufficient compensatory habitat is located in the right places and functional at the right time is essential to meet the FCS test. It is not yet clear in all cases that this can be achieved.

3.2.10 The overall losses and gains of habitat as a whole for the project have not been recalculated. The Applicant has said there will be net gain of 33 ponds and 31 ha of GCN habitat (3.6.26 of NR54) but that overestimates the position which needs to be recalculated to reflect the fact that habitats which are fragmented and are at too great a distance from the known meta population, should not be counted towards that total. In addition, the additional habitats may be required to account for the additional risks of the proposals, for example, the increased risk of killing GCN with a reduced capture effort. This would not and could not be considered to be 'net gain'.

3.2.11 The fact that the proposed ECS may have or have had some existing suitability for GCN also needs to be factored into the calculation (for example B9 in Route Section 2B may already contain some suitable habitats). If habitats are already optimal, they should not be counted towards compensatory habitats.

3.2.12 Some of the individual applications that NE has screened do now appear to identify only those habitats within a reasonable dispersal distance of known meta-populations as compensation (Route Section 2A and 2B). However, this does not appear to be the case for the draft licences for Route Sections 2D and 2E. For example, Ecological Compensation Site E4 is over 600m from the nearest known GCN pond, on the other side of the railway line. Although the translocation of newts to this site is proposed, the capture proposals are not yet clearly justified, so it is not clear that this site would be functional in the short-medium term. In terms of compensation site E4, it is also stated that the site may change subject to discussions with the landowner. It is uncertain if this would substantially change the quantity and quality of compensation proposed.

3.2.13 There are still some outstanding issues relating to fragmentation and isolation of habitat which have not been fully accounted for, in particular in areas where there will be permanent habitat losses and populations could also be subjected to cumulative impacts from other developments (for example, the populations near Winslow in Route Section 2B). The location of permanent and temporary terrestrial habitat losses are not detailed on figures/maps for any of the Route-Wide licence applications and this prevents a complete understanding of the scheme's impacts on meta-populations.

3.2.14 It is as yet uncertain whether for Route Sections 2D and 2E a suitable quantity of terrestrial habitat is being provided as compensation. It is stated that the actual impacts on GCN are likely to reduce however since a worst case scenario is presented by EWR (and the losses have not been recalculated) that is what NE must consider. On the current proposals it is not possible to say that the provision of compensation would be

sufficient. For example in Route Section 2D 17.73ha habitat will be lost and only 8.71 ha will be created. Even if this figure is re-calculated to take into account a reduction for sub-optimal habitat to be lost (e.g. buildings, arable), it does not take into account the risks of the proposed approach including, for example, the use of more distant compensation sites, time lag for habitats to become functional, increased risk of killing/injury through proposed reduction in capture effort etc. In addition, because the permanent and terrestrial habitat losses have not been mapped it is not easy to see how the proximity of optimal habitat relates to the known populations.

- 3.2.15 The proposals for Route Sections 2A and 2B perform better in terms of the provision of habitat compensation. The aquatic and terrestrial habitat compensation proposals for Route Section 2A appear likely to be sufficient subject to some minor points of clarity. For Route Section 2B it appears that there is the potential for the proposed compensation provision to be sufficient in terms of quantity and quality, however further clarity on impacts (including fragmentation/isolation and proximity of optimal terrestrial habitat losses to known GCN ponds), habitat creation areas (factoring how suitable the existing habitat is), additional/updated survey (which may reduce or increase impacts) will be required before Natural England can confirm this.
- 3.2.16 For Route Sections 2A and 2B the location of the compensation sites appears to be appropriate, given the information provided. Although compensation site B26 is approximately 1.4km from the nearest known GCN waterbody and therefore the immediate value of this site is reduced, there may be longer term benefits. The timescale for when this site may be utilised needs to be factored into the overall compensation provision calculations.
- 3.2.17 Finally there is a lack of clarity in most of the route-wide applications in terms of the direct and indirect loss and damage of aquatic habitats and the implications of this. Without this clarity it is not possible to judge whether the compensation proposals are sufficient for 2D and 2E. For example, new pond provision (12 new ponds) may not be sufficient for 2E (14 ponds lost or partially lost and 5 temporarily damaged) or it may be sufficient if the majority of these losses involve small sections of sub-optimal ditches.
- 3.2.18 There remain uncertainties about the timing, availability and use of certain Ecological Compensation Sites which affects considerations of whether habitats are sufficient, whether they will be functional at the right time, and located in the right place. For example, it is not clear that ECS D3 is within the dispersal distance of known GCN ponds, in the short medium and long term (as there are no ponds proposed), this should not be counted as compensation unless it is demonstrated that the site is in proximity to known populations. In addition, some of the ECS detailed design is still under consideration. ECS E4 appears to include some uncertainties of the final size/shape which could affect the overall compensation provision. Natural England need assurances that as a minimum it would be possible to create or enhance whatever is necessary to compensate for the impacts.

Use of the Licensing Policies to reduce capture and exclusion

- 3.2.19 NE requires changes to the way the New Licensing Policies are being applied to this Project. As set out above, metapopulation analysis has now been undertaken by EWR as requested and this has aided the analysis, although NE will be providing some comments and advice on the approach utilised. However, there are still issues with the

degree of reduction in capture effort that is being applied to various works, the balance of compensation provision and the location of the compensation. It is possible that these issues can be resolved through changes to the proposals but this cannot be confirmed at this stage and it is not clear what effect these changes would have on the project timescales or deliverability of the Scheme.

3.2.20 Examples of where this may apply include:

- a) for Route Section 2B, some targeted trapping and removal of GCN from the works area may be required where the majority of the suitable/optimal terrestrial habitats available to the meta-population will be lost/damaged by the Scheme, and therefore a significant proportion of the population could be killed/injured.
- b) in Route Section 2D and E, proposals to trap ponds as proposed and move newts to more distant habitats may not be appropriate. These issues may be able to be addressed through changes in the mitigation proposals.

Management, Maintenance and Monitoring of ECS

3.2.21 The draft licence applications do provide some additional clarity on the management and maintenance actions and population monitoring that will be undertaken to address the NE's objection in 6.2.94-95 (OBJ-242). NE will require changes to the proposed monitoring before it can be fully satisfied with the applications. Additional monitoring will be necessary to identify that FCS is being maintained and identify any remedial action that needs to be undertaken. EWR has indicated that they would consider entering into a Natural Environment and Rural Communities Act 2006 (NERC) agreement with Natural England, however there has been no contact from Network Rail's solicitors regarding progressing the drafting of this.

GCN Licence Applications

3.2.22 The draft licence applications that have been screened have outstanding issues that need resolving before NE can provide a view on whether the three licensing tests are likely to be met.

3.2.23 In relation to the applications that relate to site compounds and other works proposed to take place imminently (i.e. works to Bletchley Viaduct). NE has concerns which will need to be addressed by EWR.

Moco Farm proposal

3.2.24 NE considered the proposal in NR238 in relation to the 'Moco Farm Ecological Compensation Site B28'. This appears to set out an alternative scenario whereby three existing ECS B9, B10 and B17 are removed and swapped for the larger ECS B28. NE has the following concerns:

- a. the use of B28 as an alternative would concentrate newts from metapopulations at a considerable distance from the site in one place requiring their translocation from several kilometres away;

- b. viability of meta-population 2B6 - the cumulative impacts of proposed development (at Great Horwood Road) in the area of metapopulation 2B6 have not been properly addressed. In addition, it is not clear if permanent losses associated with the proposed Winslow station will lead to permanent or partial fragmentation of the ponds that make up this population. It should be noted that for Meta-population 2B6, a significant proportion of the existing optimal terrestrial habitats available for the population are within the red-line boundary and may therefore be impacted by the EWR works. Any proposals to translocate a proportion of the population outside of the meta-population area is likely to reduce the viability of the remaining population particularly if the population is fragmented and is left without sufficient suitable terrestrial habitat.
- c. viability of meta-population 2B11 - there is very little suitable terrestrial habitat in the vicinity of meta-population 2B11, other than a small area immediately surrounding the ponds and the railway line habitats. The impacted habitats are therefore likely to be critical in maintaining the viability of this population. Without additional compensation provision in this area, the population may be vulnerable to extinction, particularly if newts are not trapped and translocated from impacted habitats or are trapped and translocated to a site outside of the range of the impacted population.

3.2.25 The strategy and rationale behind this proposal has not been fully explored. The advantage of compensation sites (including B9, B10 and B17) are that the existing populations are compensated in situ and therefore provide a stepping stone of suitable aquatic and terrestrial habitats can then be maintained through the landscape. NE's Licensing Policy 2 identifies that there can be greater flexibility on the location of compensation sites, this means that the compensation does not have to be located within the impacted meta-population's range. However, if compensation is proposed to be provided outside the range of a meta-population, then it must be demonstrated that the off-site solution provides greater benefit to the local population than the on-site solution. In this case it is accepted that Moco Farm will provide a greater proportion of suitable terrestrial habitat than the combined sites B9, B10 and B17. However, when determining whether favourable conservation status can be maintained, it is important to consider not just the potential number of newts that can be supported by the proposals (population) in terms of the habitat provisions but also maintenance of range and future prospects. In relation to this Scheme, Natural England would consider it appropriate that there should be no loss of range at the 1km² level. If sufficient habitats were not retained within the range of a meta-population SB6 and 2B11 or the loss of these habitats resulted in fragmentation of critical areas, then future prospects could be impacted, the populations could be vulnerable to extinction and FCS would not be met. As matters stand, without the missing landscape perspective, Moco Farm does not provide an acceptable alternative for the loss of these three sites to ensure maintenance of FCS.

3.2.26 NE would welcome the additionality of B28 and the provision of long term management and maintenance of suitable aquatic and terrestrial habitats with B28, which could provide good habitat connectivity and enhanced resilience for meta-populations 2B7 and 2B9, post-construction.

3.3 Otter

3.3.1 NE's objection in respect of otters is set out at 6.2.99-6.2.105 OBJ/242.

3.3.2 Since the start of the inquiry NE has received the following further information: (a) a draft licence application for otter (received 22 February 2019); (b) Additional information by email (received on 14 March 2019) regarding survey effort, impacts and mitigation for otter impacts that would not be covered by a licence and a document entitled 'EWR – Rationale for Mammal Passes update 040219'.

Otter Survey

3.3.3 Dr Stephanie Wray has clarified in respect of the survey methodology that presence of otter has been confirmed on all watercourse networks throughout the study area and most aquatic features received a single survey visit, with some receiving two visits. There is also further clarification on the survey effort for four specific areas of the Scheme within the draft licence application.

3.3.4 In many cases only a single survey of suitable aquatic and terrestrial habitats has been carried out, this would be considered sufficient if the presence of otter has been confirmed in a particular area but only as long as there is no habitat suitable for the creation of holts or couches present within or immediately adjacent to the land required for the construction of the Proposed Scheme. A single survey is not sufficient, where suitable habitat exists, this is because otter activity is subject to seasonal variation.

3.3.5 Consequently, survey effort may require several surveys throughout the year, depending on the likelihood of impacts, in order to determine the scale of the impact and any necessary mitigation requirements. If suitable habitat is present for the creation of holts or couches and otters utilising these features would be impacted by the proposed works, then NE would expect sufficient survey to be carried out, particularly as locating natal holts is difficult. It may be appropriate to carry out four survey visits at three monthly intervals to inform this scheme. This is consistent with survey guidance outlined in Liles G (2003). Otter Breeding Sites. Conservation and Management. Conserving Natura 2000 Rivers Conservation Techniques Series No. 5. English Nature, Peterborough. Also the Design Manual for Roads and Bridges (DMRB, Volume 10, Section 4, Part 4 'Nature Conservation Advice in Relation to Otter' (Highways Agency 1999). Further justification on the level of survey effort needs to be provided, or it may be necessary to target further surveys. For example, there ought to be further survey where there is sufficient suitable terrestrial habitat (with good cover) and high quality foraging. Only with an adequate survey baseline is it possible to know whether impacts can be avoided and/or mitigated.

3.3.6 The additional information provided begins to address some of NE's concerns. However, the information is inconsistent in places and is difficult to interpret (for example, there is no cross referencing to maps and grid references). It would have been helpful to have all of the culvert numbers provided on a single plan. In addition, inconsistencies in the survey results means that there can be less confidence in the accuracy of the data.

Mitigation for Operational Impacts

- 3.3.7 The objection raised by NE at 6.2.103-104 OBJ/242 is now resolved. NE accepts that 'EWR – Rationale for Mammal Passes update 040219' is a working document. In principle, the proposals to address connectivity (and reduce risks of operational mortality) appear broadly acceptable. A suitable planning condition will need to secure the retention, creation, maintenance and monitoring of suitable features to allow safe passage of otter throughout the construction and operation phases where otters are known to use the feature or have the potential to do so in the future.
- 3.3.8 The maintenance and inspection of mammal passes needs to continue for as long as the line is operational, not just for 3 years currently proposed, once the Scheme is operational.

Conclusion

- 3.3.9 Due to gaps in surveys undertaken, NE is currently unable to conclude that the survey programme undertaken to date has identified all the licensable impacts of the scheme with regard to otter. For those impacts already identified, there is insufficient clarity as to the level of impact, and therefore the suitability of the avoidance and mitigation measures proposed.

3.4 Water Vole

- 3.4.1 NE's objection in respect of water vole is set out at 6.3.1 – 6.3.12 OBJ/242.

Survey

- 3.4.2 A significant number of sites were surveyed on only one occasion. Adequate justification has not been provided for the absence of a second survey visit, as per the guidelines set out in the Water Vole Mitigation Handbook 2016¹. Before NE can conclude whether the level of survey and mitigation proposals are adequate, and therefore, whether a licence for the scheme's impacts could be issued, the following points must be clarified:
- 3.4.3 Surveys need to show whether water vole are present in the area or nearby, and how they use the site. Mitigation measures built into proposals may reduce the amount of survey work that is required (including survey effort and spatial extent), though there must still be sufficient information supplied to understand the nature of impacts and their likely effect on the conservation status of the species concerned.
- 3.4.4 It is not clear from the information provided whether there has been deviation from the standard survey protocol. If there has been deviation, this will only be acceptable where there is clear and adequate justification for this.
- 3.4.5 The acceptability of the extent of any survey should be proportionate to the level of anticipated impacts. EWR state that there will be only 8m of permanent loss of suitable habitats, which appears to be minimal. However, what is not clear is the scale and duration of any temporary fragmentation and temporary habitat losses which may or may not be

¹ R. Andrews, M. Dean, D. Gow, R. Strachan, 2016 The water vole mitigation handbook, The Mammal Society

significant. The extent of all of impacts (temporary and permanent) needs to be explained before we judge whether the survey effort is acceptable.

- 3.4.6 Until the baseline survey is understood and EWR shows it has done sufficient survey to be able to understand whether water vole will be impacted, it is not clear whether a licence is required, and if so, whether one could be issued with the proposals as they stand.

3.5 Badgers

- 3.5.1 Natural England received a draft badger licence application from the East West Rail (EWR) Alliance on 20 February 2019. NE verbally requested additional information and EWR sent this by e-mail on 21/02/19 (concerning the badger re-survey programme). NE requested detailed information on the bait marking results and EWR submitted these on 07/02/19 for Route Section 2A and stated Route Section 2B results would not be forwarded. Further clarification of artificial sett locations was requested by NE on 22/03/19. Additional information was provided by e-mail from EWR on 20/03/19, 21/03/19 (land parcel access) and 22/03/19.

- 3.5.2 The following points are outstanding:

a. It has not yet been demonstrated that the proposed artificial sett in Route Section E (located 400m from the main sett to be closed) is located within the social group's territory. In addition, alternative sett locations are being explored but it is not yet clear that alternative sett provision would be possible within or outside of the red-line boundary or that a suitable alternative natural sett will be available. Without having this level of confidence it is not possible to conclude that a licence could be issued to exclude badgers from this sett. Therefore, either alternative viable artificial sett locations need to be confirmed now, suitable alternative natural setts need to be identified within the territory that would not be impacted upon by the development, or bait marking carried out to confirm that the proposed artificial sett is within the correct territory. Clearly works will not take place in this area until 2022, however we need to make a sound decision based on the likely scenario given the situation at this point in time.

b. EWR has concluded that the locations of artificial setts in Route Section 2B are appropriate and deliverable. However this is based on 2017 bait marking results. Before accepting that conclusion NE wishes to see the data showing the latrines and coloured pellets to provide confidence in the assumed territorial boundaries. This has yet to be provided. EWR are updating bait marking surveys for Route Section 2B. Should significant changes be anticipated (or the 2017 results be less conclusive), then updated survey is likely to be required before NE can give a view on licensing.

Consultation with the Animal and Plant Health Agency (APHA)

- 3.5.3 In order to ensure the proposals adequately mitigate any potential ex-territory displacement of badgers and reduce the risk of disease spread as a result of closure of a large number of setts, NE has sought the advice of the Animal and Plant Health Agency (APHA) Veterinarian. That consultation is ongoing. A draft Veterinary (Disease) Risk Assessment (VRA) has been completed but advice on necessary mitigation measures has not yet been concluded. Based on a qualitative assessment of the current

evidence, the likelihood that badger sett closures along the Bicester-Bletchley existing railway line could lead to an increase in the incidence of TB in surrounding cattle herds has been assessed as low (with mitigating factors applied). However, there is a medium - high level of uncertainty related to the assessment of risk. Some of these uncertainty relates to the existing survey data (e.g. accuracy of home range mapping) and the artificial setts (siting and quality). These are issues that will need to be addressed by EWR and further survey carried out. Additional mitigation measures will also need to be implemented by the Project to reduce the risk of licensed sett exclusions along the railway line increasing the incidence of TB in cattle herds near the railway line. These measures may result in a significant delay to the Project timetable and include Biosecurity provisions and may include a requirement for BCG vaccination of badgers in the area against tuberculosis.

Badger licence

- 3.5.4 In addition to the above, NE has sought and EWR has confirmed it will make various detailed changes to its licence application. Several other issues have been identified with the draft licence application which will need amending for the formal application. NE will or has sought confirmation from EWR that these can (and will) be amended.
- 3.5.5 Various changes will be required to the programme of works before a licence can be issued (timetable of badger licensable activities), these have yet to be fully discussed with and confirmed by EWR. Most significantly, this relates to proposed early (pre-TWAO exclusions).
- 3.5.6 NE's view is that a badger licence for those works, which EWR wish to utilise prior to the making of the TWAO, cannot be issued prior to the planning consent being in place.

4. Additional areas noted in NE's Statement of Case

Ancient Woodland

- 4.1 Clarification has been received from NR that no ancient woodland will be lost as a result of the project. Impacts are expected to Sheephouse Wood, which is classified as Ancient Woodland, however these impacts are addressed in our response under Sheephouse Wood SSSI. NE is also aware of some potential impacts to Salden Wood, and we agree that BCC/AVDC have correctly applied our standing advice in their response.

5. Conclusions

- 5.1 NE has sought to be as practical as possible throughout the inquiry process to assist in the approval of the EWR Phase 2 Scheme. We have sought throughout to maintain an open dialogue with EWR's ecological team to provide assistance and scrutiny to facilitate the scheme.
- 5.2 NE consider that whilst the additional information in relation to hazel dormice, net gain, and Sheephouse Wood SSSI is sufficient to remove our objections, insufficient additional information has been provided to enable us to remove our objections on all other matters including our objections in respect of the baseline/impacts/mitigation for bats, GCN, otters, water vole, badgers.

- 5.3 We are hopeful that these matters can yet be resolved. However, additional time will be required to enable EWR to provide the information and analysis required to enable NE, and the Secretary of State, to properly understand and assess the ecological impacts of the proposal and to build into the scheme (or provide a means of securing) the means of avoiding, mitigating and, where necessary, compensating for those impacts and delivering a Net Gain scheme. NE must have sufficient time to scrutinise any additional information together and in context before it can withdraw its objection and indicate that the necessary species licences could be issued. Moreover, NE will need to be satisfied that the legal mechanisms – whether through planning conditions or environmental monitoring and management agreements under the NERC act – can be provided to secure the mitigation and compensation on which this scheme relies.
- 5.4 In summary, NE respectfully requests that the Inspector, on behalf of the Secretary of State has regard to the objections and concerns set out in this Position Statement and in NE's PoE, and recognises the conflict with applicable habitats and species law and policy and as such does not make an Order for EWR's scheme as currently proposed.