

Transport of Works Act Order 1992.
The proposed Network Rail (East
West Rail Bicester to Bedford
Improvements) Order

Proof of Evidence in relation to
Ecology - Dr Ian Fairclough 156/4/1
(on behalf of O&H Q6 Ltd and O&H Q7 Ltd)

Contents

| | | |
|---|--|----|
| 1 | Introduction | 3 |
| 2 | What is the stated need for the Ecological Compensation Sites; and is this need justified?..... | 5 |
| 3 | Do ECS D3 and D4 need to be positioned in their current locations, or could they be positioned elsewhere, and if so, could this potentially be to better effect? | 12 |
| 4 | Is the location of Compensatory Flood Storage Areas likely to compromise existing or proposed land-uses from an ecological perspective? | 16 |
| 5 | Conclusions | 18 |
| | Appendix 1 – Indicative alternative locations for ECS D4 | 19 |

1 Introduction

Qualifications and Experience

- 1.1 My name is Ian James Fairclough. I have been a full member of the Chartered Institute of Ecology and Environmental Management for over fourteen years. I hold a PhD in entomology and Master of Science (by Research) in Environmental Monitoring. I am employed as a Principal Ecologist at BSG Ecology. I have over fifteen years' professional experience in ecology and have been involved in a wide range of projects in the capacity of technical reviewer or lead ecologist, including those for the waste, mining, manufacturing, transportation and land development sectors.
- 1.2 The evidence which I have prepared and provide in this proof is true and has been prepared and is given in accordance with the guidance of my professional institution and I confirm that the opinions expressed are my true and professional opinions.

Background and Scope of Evidence

- 1.3 The scope of evidence that I present concerns four land holdings of O&H (O&H Q6 and Q7 Ltd), as follows:
- The Former Bletchley Brickworks
 - Woburn Estate
 - Marston Road
 - Kempston Hardwick
- 1.4 Where relevant, for each of these sites I will consider the ecological matters pertinent to the Statement of Case made by O&H Q6 and Q7 Ltd and address these as follows:
- What is the stated need for Ecological Compensation Sites; and is this need justified?

- Do Ecological Compensation Sites need to be positioned in their current locations, or could they be positioned elsewhere, and if so, could this potentially be to better effect?
- Is the location of Compensatory Flood Storage Areas likely to compromise existing or proposed land-uses from an ecological perspective?

1.5 Finally, I summarise and conclude the findings of my evidence.

2 What is the stated need for the Ecological Compensation Sites; and is this need justified?

2.1 There are three Ecological Compensation Sites (ECSs) on O&H owned land (ECS C1, D3 and D4). In this section I examine the ecological compensation proposed in these three areas and consider whether this is likely to be appropriate, based on the habitats and protected species that are understood to be affected in proximity to these sites.

ECS C1 (Land East of Selbourne Avenue, Bletchley)

2.2 ECS C1 is located at the former Bletchley Brickworks where it is immediately adjacent to the Blue Lagoon Local Nature Reserve (LNR) and Biological Notification Site (BNS). This is also connected to Newton Longville Brickworks BNS, 550 m to the west, by the Water Eaton Brook. The ECS is also immediately south of the Woburn to Bletchley Milton Keynes Wildlife Corridor. The location of this ECS is not contested by O&H.

ECS D3 (Land East of Marston Road, Lidlington) and ECS D4 (Land West of Manor Road, Bedford)

2.3 The stated need for ECS D3 is to provide compensation for bats, aquatic habitats and species, terrestrial habitats, birds, terrestrial invertebrates; and for ECS D4 is to provide compensation for bats, aquatic habitats and species, terrestrial habitats, birds, terrestrial invertebrates, otter, water vole¹.

Bats

2.4 I consider the issues relating to bats first in terms of the general assemblage and the use of the local landscape for foraging and commuting and secondly in terms of known or assumed roosting.

2.5 In respect of bats recorded foraging and commuting in the local landscape, following 2018 surveys, the presence of the following species was confirmed, associated with Route Section 2D: common pipistrelle, soprano pipistrelle,

¹ Further Ecological Information to Supplement Environmental Statement - Technical Appendix 9.13 v2

Nathusius' pipistrelle, barbastelle, noctule, brown long-eared, *Myotis* sp., Leisler's bat, and serotine². The nature conservation evaluation for bats associated with Route Section 2D was identified as being of Regional importance. Notwithstanding this, at Para 9.5.98 of ES Chapter 9 (Ecology), in respect to the effects of habitat fragmentation and loss of foraging habitat on bats, it states that '*The works in Route Section 2D are small in scale and do not result in large linear lengths of vegetation being removed.*' Additionally, '*the crossing point surveys in 2018 found that the majority of observed activity was by common pipistrelle bats, with fewer observations [of] all other species. These results indicate fewer bats of rarer species crossing the Scheme regularly than was previously assumed to be the case, though a significant proportion of *Myotis* bats did cross the Scheme below 5 m above ground level*'³.

2.6 This assessment indicates that whilst a good assemblage of bats has been recorded across Route Section 2D, impacts on foraging and commuting are likely to be restricted to *Myotis* bats that could be at risk of collision with passing trains in the immediate vicinity of the railway. It is understood that the mitigation proposed to reduce the risk of collision mortality includes planting of fast growing tall trees and shrubs on both sides of the railway. Accordingly, creating habitats at the ECSs (D3 and D4) is not considered likely to either reduce or increase the risk of bat collision and therefore would not be required as specific mitigation for foraging and commuting bats. Furthermore, the provision of substantial habitat for foraging bats (above and beyond that which would be restored / created along the railway on completion of the works) would not appear to be necessary to maintain favourable conservation status of bats in the vicinity of the two overbridge crossing sites.

2.7 In terms of roosts, none have been recorded on Route Section 2D. However, two buildings have been identified as having potential to support bat roosts. A building (ref. 458.1_BS_F001 – Chuffa Cottage) is understood to be lost to the scheme to make way for the Marston Road overbridge. It is stated that '*The building offers moderate suitability for roosting bats. It is assumed that the building could contain*

² Further Environmental Information in support of the Network Rail (East West Rail Bicester to Bedford Improvements) Order Environmental Statement -Part I - Main Report. November 2018

³ *ibid*

*a roost of moderate conservation significance on a precautionary basis*⁴. However, it is not clear how this assessment has been made and it is understood that no further surveys have been undertaken for the building, for example, to establish the presence / likely absence of a roost through dusk emergence and dawn re-entry survey. Notwithstanding this, it should be made clear that there is no direct correlation between a building of moderate suitability and a roost of moderate conservation significance. Until properly surveyed it would not be possible to state with any certainty whether the building supports a roost of low, moderate or high significance; or even no roost at all. In Technical Appendix 9.13 v2⁵ it states that '*Should surveys confirm absence of roosting bats for the building that will be lost, the bat house will not be included on the detailed design or implementation at this ECS*'.

2.8 A building (ref. 449.1_BS1_F001 Southview) is understood to be lost to the scheme for the Manor Road overbridge. It is stated that '*The building offers low suitability for roosting bats. It is assumed that the building could contain a roost of moderate conservation significance on a precautionary basis*⁶. However, it is not clear how this assessment has been made and it is understood that no further surveys have been undertaken for the building, for example, to establish the presence / likely absence of a roost through dusk emergence and dawn re-entry survey. In Technical Appendix 9.13 v2⁷ it states that '*Should surveys confirm absence of roosting bats for the building that will be lost, the bat house will not be included on the detailed design or implementation at this ECS*'.

2.9 There is evidently a lack of sufficient survey information to the required standard to inform an assessment of the presence / absence of roosting bats. Until such information is obtained it is not possible to establish whether the assessment of impacts upon bats is appropriate, and correspondingly, whether the mitigation proposed is justified.

⁴ Further Ecological Information to Supplement Environmental Statement - Technical Appendix 9.13 v2

⁵ ibid

⁶ ibid

⁷ ibid

Watercourses and Riparian Mammals (Otter and Water Vole)

- 2.10 ECS D4 is stated as providing compensation for impacts to aquatic habitats and species within Route Section 2D⁸. This includes impacts to water vole and otter. The otter is a species that is likely to be present on suitable water bodies across the scheme, which is supported by the findings of the ES Chapter. Water vole is a species that has not been recorded within the Scheme Area. However, access to survey a number of aquatic features within Route Section 2D was not possible, and as a precautionary measure, compensatory habitat has been proposed, although the exact nature of this is not described.
- 2.11 Based on the information reviewed, it is considered that the requirement for water vole compensation specifically at ECS D4 of Section 2D needs to be reassessed for two main reasons:
- The findings of the surveys demonstrate that water vole has not been found to be present within those water bodies surveyed within the study area. Full surveys that include water bodies in proximity to the Manor Road overbridge are needed to demonstrate the presence of water vole (or otherwise) so that appropriate mitigation and / or compensation can be developed that is appropriate to the population affected.
 - The nature of impacts at the Manor Road overbridge is such that even if water vole were present, the footprint of works for the overbridge appears to only directly affect very small (less than 20 m) sections of watercourse (Elstow Brook and a small drain). Even if water vole were present, a displacement licence could be applied to displace water vole from the works footprint due to the distance of habitat affected being less than 50 m. This would be on the basis that suitable habitat must be created or existing habitat enhanced within the range of the affected population to provide net conservation gain.

Birds

- 2.12 The full details of compensatory habitat provision for birds at ECS D3 and D4 has not been described in the relevant report (e.g. Technical Appendix 9.13 v2).

⁸ Further Ecological Information to Supplement Environmental Statement - Technical Appendix 9.13 v2

However, it is interpreted that specific field based bird surveys have not included the relatively minor habitats (including scrub and plantation woodland) such as those surrounding either the proposed Marston Road or proposed Manor Road overbridges; the closest surveyed area apparently being the large and complex wetland area of the Millennium Country Park. It is therefore interpreted, on this basis of a lack of field survey of the proposed overbridge sites, that it is considered likely that only common and widespread birds are likely to be affected by the proposals at these locations. If this were thought to not be the case, site specific field surveys would need to have been completed.

- 2.13 Given the above, in the absence of detailed field survey, the compensation provided at ECS D3 and D4 of Section 2D must be seeking to compensate for other cumulative losses across the scheme, rather than specific losses in the immediate vicinity of the overbridge sites. Therefore it can be inferred that there is no overriding need to provide compensatory habitat for birds at ECS D3 and D4.

Terrestrial Invertebrates

- 2.14 The full details of compensatory habitat provision for terrestrial invertebrates at ECS D3 and D4 has not been described in the relevant report (e.g. Technical Appendix 9.13 v2). In connection with the Marston Road overbridge, the revised invertebrate technical report⁹ states at Table 3.37 that survey found '*no species of conservation concern and two species with specialist habitat requirements*' in 'Lidlington plantation' (IT_LT_062). In the area of Lidlington Pit County Wildlife Site (CWS) (IT_LT_063) two species of conservation concern were recorded in 2015; although the survey coverage for this parcel is large and it is not clear if this covers the small area affected by the proposed scheme. In the area of the Manor Road overbridge, the Former Hanson industrial site (IT_LAM_067a) was surveyed, but '*no species of conservation concern were found during survey and few specialist species were recorded*'. The area north of Manor Road and west of the railway line (IT_AP_150) was scoped out due to habitats being considered to be unlikely to be of high importance.

⁹ Further Ecological Information to Supplement Environmental Statement - Technical Appendix 9.12 v2

- 2.15 Based on the information reviewed, it is considered that the requirement for terrestrial invertebrate compensation specifically at ECS D3 and D4 of Section 2D is not supported by the findings of the surveys or nature of impacts in the vicinity of the Marston Road and Manor Road overbridges. It is therefore assumed that the compensation provided at ECS D3 and D4 of Section 2D is to compensate for other cumulative losses across the scheme, rather than specific losses in the immediate vicinity of the ECSs.

Terrestrial habitats and ponds

- 2.16 Figure 9.4 v2 - Botanical Surveys and Habitats of Principal Importance, shows woodland, a Habitat of Principal Importance, associated with a large area of semi-natural habitat and part of Lidlington Pit CWS partly within the Study Area. Table 3.52 of the relevant technical appendix¹⁰, states that this area (PH2_2D_004B) was scoped out of further (Phase 2 - NVC) surveys, describing the area as follows: *'Area north of the railway track consisted of dense scrub and planted woodland. Area south of the railway track comprised dense hawthorn (Crataegus monogyna) scrub with occasional semi-mature trees moving into an ash (Fraxinus excelsior) dominated woodland with species-poor ground flora'*. It could be interpreted that this is a poor example of the Habitat of Principal Importance - lowland mixed deciduous woodland – due to its recent planted origin and lack of mature trees. No other areas that could potentially merit Habitats of Principal Importance were identified at the locations of the Marston Road and Manor Road overbridges.
- 2.17 Technical Appendix 9.13 v2 states that at ECS D3, compensatory habitat provision will include lowland mixed deciduous woodland and ponds (and marginal planting). At ECS D4 compensatory habitat provision will include lowland mixed deciduous woodland. Neither of these habitats appears to be either present, or if present, of significant value at the two overbridge sites. Therefore, it is assumed that the habitat compensation provided at ECS D3 and D4 of Section 2D is to compensate for other cumulative losses across the scheme, rather than specific losses in the immediate vicinity of the ECSs.

¹⁰ Further Ecological Information to Supplement Environmental Statement - Technical Appendix 9.1 v2

Summary

- 2.18 Overall, for the species groups addressed, it is considered that the proposals for compensation, using ECS D3 and ECS D4 on O&H land are premature. This is because it is understood that detailed surveys for certain protected species (e.g. bat and water vole), such that might inform the specific mitigation and / or compensation, have not been undertaken in the localities concerned. These two ECSs would both appear to have been selected on the basis that they are relatively close to areas of general habitat loss, attributed to the Marston Road and Manor Road overbridges; although the quality of habitat lost in these areas is presented as being of limited ecological significance and therefore may not necessarily require compensation above and beyond the habitat reinstatement that will take place along the railway line itself. Even if such compensation is required, for loss of common, widespread and readily re-creatable habitat, there would seem to be no necessity to position this on O&H land in the specific areas covered by ECS D3 and ECS D4.
- 2.19 It is therefore considered likely that alternative sites could be identified to provide compensation for general habitat losses and impacts to common and widespread species affected along Route Section D, and this is discussed in further detail in the next section.

3 Do ECS D3 and D4 need to be positioned in their current locations, or could they be positioned elsewhere, and if so, could this potentially be to better effect?

3.1 Having identified in the previous section that the requirement for ECS D3 and ECS D4 is not justified at this stage, the present section considers whether the position of these could be altered, and if so whether this could bring greater biodiversity benefit.

3.2 A general point that is relevant to both ECS D3 and ECS D4 is that these sites do not need to be specifically positioned in the areas where they are presently shown. As I discuss below, bat mitigation such as the provision of a compensatory bat roost (should one be required) can be considered separately to compensation for other Important Ecological Features, and may not require much (if any) land take, for example if a bat building is not required and provision of bat boxes affixed to trees is sufficient.

3.3 As discussed in Section 2.0, compensation for impacts to other Important Ecological Features, many of which are understood to be widespread and common in the vicinities of the Manor Road and Marston Road over bridges, does not need to be fixed in the specific areas covered by ECS D3 and ECS D4. This being the case, alternative sites could be considered along the route. The Ecology Chapter of the Environmental Statement provides a set of parameters that have been considered in the selection of ECSs¹¹; however, the justification for choosing these areas is loosely described and there is no explanation as to why other areas could not be chosen.

ECS D3

3.4 A primary reason for the selection of ECS D3 would appear to be to compensate for potential loss of a bat roost. In Section 2.0 I identified that the requirement for mitigation for bats was not justified as the presence of bats is not presently established. Notwithstanding this, in speculating whether the proposed mitigation measures are appropriate for bats, it is agreed that the loss of an existing roost (if

¹¹ Further Ecological Information to Supplement Environmental Statement - Technical Appendix 9.13 v2

this proves to be the case) should be compensated through the provision of an alternative roost site, and this should be in close proximity to the existing roost. However, the nature of this compensation roost could take a variety of forms, and may not strictly need to be a large structure such as a bat house that could require considerable land take. This is demonstrated on Figure 4 of the bat mitigation guidelines¹² that shows a sliding scale of mitigation / compensation that would typically be required depending on whether the roost is of low to high conservation significance. For example, to compensate for the loss of a non-breeding roost that is used sporadically by small numbers of a common species of bat, provision of bat boxes affixed to established trees in the local landscape is likely to be sufficient. To compensate for the loss of a maternity site of a species, like-for-like replacement would normally be required, and in the case of the loss of Chuffa Cottage, this could require the provision of a new roost site in a new building.

- 3.5 The bat mitigation guidelines advise that it is important that a new (compensation) roost site is set close to the roost to be lost (as it is considered more likely that the bats using the original roost will locate the new one). It should also be within or adjacent to corridors of habitat being used by the bat colony affected that provide safe passage for commuting, and should be close to sufficient foraging grounds for the species of bat affected. Therefore, **if** it was necessary to provide a compensation roost, the location of this does not need to be fixed in its current location at ECS D3, as other, closer alternatives may be appropriate. The Ecology Chapter of the ES fails to demonstrate that alternative sites for such a compensation roost, **if** required, have been considered.
- 3.6 The position of this small compensation site within the semi-natural vegetation close to Lidlington Pit CWS would also appear to have disregarded the potential harm that could be done in constructing a bat house and access track to this (if required). This could result in the loss of semi natural vegetation, notably semi-improved neutral grassland and plantation broadleaved woodland that, in combination with other habitats across the parcel of land south of Lidlington Pit CWS, forms an area of the Habitat of Principal Importance - open mosaic habitat on previously developed land. This is recognised as being of ecological

¹² Mitchell-Jones, A. J. (2004) *Bat mitigation guidelines*. English Nature, Peterborough.

significance in the Marston Valley Outline Planning Application (OPA) Environmental Statement¹³. The cumulative effects of the Marston Valley OPA has not been assessed by Network Rail should the East West Rail Bicester to Bedford Improvements Order be consented.

ECS D4

- 3.7 As described in Section 2.0, from review of the available information, it is considered that the majority of habitats provided at ECS D4, to compensate for habitat losses and mitigate for impacts (and potential impacts) to protected species, are not strictly required in the parcel of land identified. The potential impacts associated with the potential loss of a bat roost at Southview are not presently justified due to the absence of adequate survey information confirming the presence of bats. Even if speculating whether the proposed mitigation measures are appropriate for bats (should they be present), the provision of a new (compensation) roost in the specific locality of ECS D4 may not be the best location for the same reasons as those given for ECS D3 (alternative sites may be more suitable, especially in positions closer to the point of loss). Again, the Ecology Chapter of the ES fails to demonstrate that alternative sites for such a compensation roost, **if** required, have been considered.
- 3.8 Provision of foraging habitat for bats and birds, terrestrial habitat for invertebrates and aquatic habitat for invertebrates is cited as a reason for selecting ECS D4; however, such provision could be provided elsewhere (across Section 2D). Appendix 9.13 suggests that this ECS has been selected due to its proximity to Kempston Hardwick CWS. However, this is on the west side of Manor Road, so the road will form a barrier / partial barrier to dispersal for some groups of animals that will vary depending on the species. It would be more appropriate to position the ECS on the east of the road, and several potentially suitable locations could be identified all in close proximity to the overbridge works (see Appendix 1 of my proof), such as the field of amenity grassland immediately east of Manor Road and west of the railway; the former Hanson industrial site with large expanses of bare ground (concrete hardstanding) immediately east of Manor Road and the railway; or the arable field north of the CWS and immediately east of Marsh Leys Industrial

¹³ O&H (2018) Marston Valley Outline Planning Application Environmental Statement; Chapter 9: Ecology.

Estate and the railway. All of these are examples of areas with predicted existing low ecological value (based on present findings from the ecology surveys undertaken by EWR), but which are better connected to Kempston Hardwick CWS on the east of Manor Road, so are likely to bring greater biodiversity benefits. The Ecology Chapter of the ES again fails to demonstrate that alternative sites for more general compensation for Important Ecological Features have been considered.

4 **Is the location of Compensatory Flood Storage Areas likely to compromise existing or proposed land-uses from an ecological perspective?**

4.1 In this section of my proof, I examine the location of the Compensatory Flood Storage Areas (CFSAs) on O&H land, and consider whether the siting of these could give rise to future ecological constraints should they become occupied by protected species.

4.2 The Water Quality and Flood Risk Chapter of the ES¹⁴ states that '*opportunities to provide ecological enhancements as part of the CFSAs will be sought on a case by case basis as Project design progresses*'. At the present time, it is assumed that the default option for CFSAs will be to design these so that they temporarily fill with surface water during flood events. On this basis, due to the highly temporary nature of any ponded water, it is unlikely that the CFSAs will provide aquatic habitat for flora or fauna, including great crested newt. However, if ecological enhancements are sought, and the opportunity is taken to excavate deeper to create permanent or semi-permanent water bodies, there is a possibility that these may become colonised by wildlife, especially those associated with the aquatic and marginal vegetation that establishes. This could include a range of birds associated with wetland habitats, wetland invertebrates, and potentially water vole and otter. Amphibians may also use this habitat. It is noted that great crested newt is present (or assumed present) within 500 m of three O&H land holdings directly affected by the CFSAs as follows:

- Bletchley – Large population confirmed during 2018 surveys in large pond adjacent to railway, on opposite side to O&H land (Pond Ref. GCN_119).
- Woburn Sands – Assumed medium populations in ponds either side of railway and in close proximity to O&H land (Pond Ref. GCN_145 and GCN_983).
- Kempston Hardwick – Confirmed population (assumed medium) in ditch adjacent to Manor Road and within 10 m of O&H land (Pond Ref. GCN_247), and several other ditches and ponds surrounding the CFSA for the Manor

¹⁴ The Network Rail (East West Rail Bicester to Bedford Improvements) Order - Environmental Statement – Chapter 13 - Water Quality and Flood Risk.

Road overbridge that were not surveyed but had medium populations assumed.

- 4.3 For the CFSA's in these three locations there is a distinct possibility that, due to the proximity of the CFSA's to the great crested newt populations, they will become colonised by great crested newt (and other amphibians) if aquatic habitat is provided and allowed to establish. The risk to O&H of this habitat becoming colonised by great crested newt is that it would, most likely, place restrictions on how the aquatic habitat and immediately surrounding land within and adjoining the CFSA's can be managed so that great crested newts are not harmed by unsympathetic forms of land management such as arable farming that could be an offence under the relevant legislation. This is also likely to add significant cost (time and financial constraints) should there be any intention of O&H to develop great crested newt occupied land in the future.
- 4.4 In terms of terrestrial habitat land use, it is not understood how the CFSA's are to be managed and whether these are expected to be returned to former arable uses following reprofiling of the ground levels; although site specific land management agreements may need to be sought for those that are affected by planned future development (see next paragraph, below). Notwithstanding this, if land is to be set aside for any significant period of time (e.g. 3 to 5 years or more), during which it is either left to vegetate naturally, or sown and then left unmanaged, there is a reasonable chance that the land will become occupied by wildlife, including protected and notable species such as reptiles, terrestrially occurring great crested newt, nesting birds and invertebrates.
- 4.5 Based on the above reasoning, the positioning of the CFSA's has the potential to provide ecological constraints upon development at Woburn Sands and at Lidlington (Marston Valley OPA), where there are future proposals that directly relate to land included within a CFSA. It would be inappropriate to allow habitat to become established in these areas if it might form a future constraint to development. Therefore, it is recommended that a coordinated approach is taken with O&H in regard to how the CFSA's could be engineered in these locations and whether or not there is scope to encourage wildlife onto this land through sympathetic management.

5 Conclusions

- 5.1 In conclusion I consider that, based on the evidence, there is insufficient survey information to the required standard to inform the nature of impacts on bats and water vole that are deemed to be among the reasons for the designation of Ecological Compensation Sites on O&H land. Only once full surveys have been undertaken will it be possible to understand what the appropriate form of mitigation / and or compensation should be and the best location for this.
- 5.2 The approach to selection of Ecological Compensation Sites in Route Section 2D is not transparent. It is my interpretation that sites have been selected to provide compensation for 'overall' biodiversity losses across the Route Section rather than to offset specific impacts on protected species that need to be located as close to the source of impact as possible. This raises the question as to whether such sites could potentially be located in other areas, or that are potentially not justified at all (although the outcome of survey would decide this); and I conclude that there may be suitable alternatives. The Ecology Chapter of the Environmental Statement fails to explain why alternative sites could not be chosen.
- 5.3 Consultation with O&H has been limited and the Ecology Chapter of the ES does not demonstrate that future proposals for land development by O&H have been factored in, especially since there could be opportunities for synergistic habitat creation (notably concerning Compensatory Flood Storage Areas) that does not constrain development in the areas of Woburn Sands and Lidlington.

Appendix 1 – Indicative alternative locations for ECS D4



Legend

 ECS D4

 Indicative alternative locations for ECS D4

Kempston Hardwick Pit CWS

OFFICE: Derbyshire
T: 01433 651869

JOB REF: P18-1079

PROJECT TITLE

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

Proof of Evidence in relation to Ecology - Dr Ian Fairclough
156/4/2

DRAWING TITLE

Indicative alternative locations for ECS D4

DATE: 15.01.19 CHECKED: JF SCALE: 1:5,000

DRAWN: SO APPROVED: JF VERSION: 1.0

Copyright © BSG Ecology

No dimensions are to be scaled from this drawing.
All dimensions are to be checked on site.
Area measurements for indicative purposes only.

This drawing may contain: Ordnance Survey material by permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown Copyright 2017. All rights reserved. Reference number: 10048980

OS Open data © Crown copyright and database right 2018 | Aerial Photography © Bing.
Microsoft Bing Maps screen shot reprinted with permission from Microsoft Corporation.

Sources: BSG Ecology survey data