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THE NETWORK RAIL (STALYBRIDGE TO DIGGLE (SADDLEWORTH) ENHANCEMENTS) ORDER

DOCUMENT: NR14 ENVIRONMENTAL REPORT VOLUME 4 – ADDITIONAL ECOLOGICAL SURVEY DATA ADDENDUM

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**The Network Rail (Stalybridge to Diggle (Saddleworth) Enhancements) Order
NR14 - Environmental Report – Volume 4 Additional Ecological Survey Data Addendum
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1 INTRODUCTION

- 1.1.1 This document is an addendum to the Environmental Report (ER) [NR14] completed for the Transport and Works Act Order (TWAo) application for the TransPennine Route Upgrade (TRU); hereafter referred to as the Order Scheme, more specifically to Volume 3, Appendix 6A: Ecology Technical Appendix and should be read alongside it.
- 1.1.2 In summary, TRU is a major, multi-billion-pound programme of improvements to bring more frequent, faster, and greener trains across the Pennines between Manchester, Huddersfield, Leeds, and York on a better, cleaner, more reliable railway.
- 1.1.3 The programme involves a variety of works including the electrification of the railway (installation of overhead line equipment (OLE) and associated infrastructure), removal, remodelling, and replacement of bridges and structures to accommodate OLE, track and signalling upgrades, and structural strengthening works. It also involves level crossing closures and, where necessary, their replacement by safer alternatives.
- 1.1.4 The TWAo application is relevant for the works required between Stalybridge and the western portal of Standedge Tunnel in Diggle (Saddleworth).
- 1.1.5 The Ecology Technical Appendix (Volume 3, Appendix 6A of this Environment Report [NR14]) presents an appraisal of the predicted ecology-related impacts and consequential effects of elements of the proposed Network Rail (Stalybridge to Diggle (Saddleworth) Enhancements) TWAo.
- 1.1.6 The 'Scheme Area' is defined as the combined footprint of areas where deemed planning permission is sought and areas of land temporarily required, as illustrated by the Order Scheme boundary on Figure 1.1.1 to 1.1.6 in Volume 2 of the Environmental Report [NR14].
- 1.1.7 Full details relating to planning, legislation, and national and local policy context regarding ecology is provided in Volume 3, Appendix 6A of the full Environmental Report [NR14].
- 1.1.8 This addendum summarises the survey work completed for two additional land parcels, previously inaccessible due to access authorisation limitations, along with the findings, and any additional recommendations or considerations that need to be incorporated.
- 1.1.9 The first land parcel is located near the structure MVL3/10 Manchester Road Underbridge, just off Blackrock Road; for the purposes of this document will be referred to as 'Blackrock'. The second land parcel is located near the structure MVL3/26 Footway Underbridge with Oaklands road running on the

land parcel's northern side; for the purposes of this document will be referred to as 'Oaklands'.

2 METHODOLOGY

2.1.1 The full methodology of the appraisal of impacts and effects, the full ecological baseline of the Order Scheme, and methodology for desk study and field surveys undertaken are provided in Volume 3, Appendix 6A of the full Environmental Report [NR14]. Suitable study areas and Zones of Influence (Zoi) were established for all ecological features in line with Chartered Institute of Ecology and Environmental Management (CIEEM) guidelines.

2.1.2 Desk study resources were utilised to inform the appraisal of the overarching Order Scheme and considered/ covered the two additional land parcels considered in this addendum. No further resources were therefore consulted nor are any changes required to the desk study assessment.

2.2 Field survey

2.2.1 Field surveys were conducted (of the two additional land parcels – Blackrock and Oaklands) to supplement desk study information, including habitat survey (utilising UKHab Classification¹ (UKHab) survey methodology).

2.2.2 These surveys were completed on 11th August 2025 for Oaklands and 17th September 2025 for Blackrock, by surveyors deemed competent per CIEEM's Competency Framework². The standard UKHab survey method was "extended" to record the presence or potential for protected and/or priority species with, given the specific properties of the two land parcels, focus on bats and badgers. Identification of any invasive non-native plant species (INNPS) within the habitats present was also completed.

2.2.3 Badger surveys, focusing on identifying field signs, were carried out. This comprised searching for signs of badger activity including setts, tracks, snuffle holes and latrines, following the methodology detailed in Surveying for Badgers: Good Practise Guidelines³ and Surveying Badgers⁴. Active setts are those which display signs indicating current use, as defined by Natural England, (2009)⁵.

2.2.4 Initial Ground Level Tree Assessments (GLTA) were also carried out to identify potential features that could be used for roosting by bats. With the aim to determine whether the additional land parcels had any roosting resources thus requiring the need for further surveying and/or mitigation. GLTAs were

¹ UKHAB Ltd (2023). Habitat Classification v2.0. Available at: <https://ukhab.org/register/>.

² CIEEM (2019) Competency Framework, available at <https://cieem.net/wp-content/uploads/2019/02/Competency-Framework-2024-V7-Web.pdf>, accessed 09/10/2025

³ Scottish Badgers (2018). *Surveying for Badgers: Good Practice Guidelines*. Version 1.

⁴ Harris, S. Cresswell, P. and Jefferies, D. (1989). *Surveying Badgers*.

⁵ Natural England (2009). *Guidance on 'Current Use' in the definition of a Badger Sett*.

conducted in accordance with best practice guidelines provided by the Bat Conservation Trust⁶

- 2.2.5 Where accessible, Preliminary Roost Assessments (PRA) were carried out to assess whether the additional land parcels have suitability to be used by roosting bats.
- 2.2.6 All PRAs and GLTAs were carried out by a bat licensed member of staff using torches, binoculars, and a recording form to inform what further surveys would be required, where access allowed, an endoscope was used to view inside potential bat features.
- 2.2.7 During the GLTA bat suitability of the potential roost feature (PRF) will be determined, this is typically categorised as:
- **None:** No bat potential.
 - **PRF-I:** PRF is suitable for individual bats or very small numbers of bats either due to size or lack of suitable habitat.
 - **PRF-M:** PRF is suitable to accommodate multiple bats and could be used as a maternity colony.
- 2.2.8 The bat roost suitability category of the feature (which are assigned High, Moderate, Low, or Negligible/ None suitability to support a bat roost) determines the number of further required surveys to determine likely absence of bats. This is in line with best practice guidelines⁶ and outlined below:
- **High:** three dusk emergence surveys carried out between May – September with at least two of the surveys between May and August.
 - **Moderate:** two dusk emergence surveys carried out between May – September with at least one of the surveys between May and August.
 - **Low:** one dusk emergence survey carried out between May – September
 - **Negligible/ None:** No further survey required.

2.3 Limitations

- 2.3.1 Access to a section of the land (between the Mossley Wastewater Treatment facility and the railway line) was not surveyed (approximately 9.5 m x 175 m) within the Blackrock parcel due to access restrictions imposed by the landowner. Where possible the area was viewed from adjacent habitats, and elevated vantage points. Aerial imagery and information collected in the desk

⁶ Collins, J. ed., (2023). Bat Surveys for Professional Ecologists Good Practice Guidelines. 4th ed. [online] Bat Conservation

study was also available. Thus, these limitations were not considered to be significant.

- 2.3.2 Some tree features were inaccessible (height above ground) thus limiting the ability to confirm the presence of bats. These trees have, however, been flagged in the sections below.

3 RESULTS

- 3.1.1 A summary of ecological features that may be affected during construction, operation and decommissioning for the full Order Scheme is provided in Volume 3, Appendix 6A – Ecology Technical Appendix of the full Environmental Report [NR14]. The sections below detail the additional considerations identified during the field surveys of the Blackrock and Oaklands land parcels.

- 3.1.2 Findings from the desk study are still applicable and are provided in Volume 3, Appendix 6A – Ecology Technical Appendix of the Environmental Report [NR14], which also considers these land parcels, as well as an assessment of species that could be affected by the Order Scheme. This addendum focuses only on the vectors likely to be encountered in the two additional land parcels.

3.2 Field survey

- 3.2.1 Blackrock has two habitat types, namely broadleaved woodland and mixed scrub. The following species were identified: silver birch, ash, goat willow, horse chestnut, sycamore, ash, hazel, silver birch, bird cherry. The mixed scrub was dominated by brambles. Invader species such as rhododendron and Himalayan balsam were also identified.
- 3.2.2 Oaklands has one habitat type, Lowland mixed deciduous woodland. The vegetation age was identified to be varied with mature, felled, saplings and newly planted trees. The following species were identified: soft rush, ash, hawthorn, silver birch, hybrid oak, bramble, broadleaved helleborine, goats willow, sycamore, pendulous sedge, alder, conifer tree sp, beech, ivy, wood avens, geranium sp., garlic mustard, holly, heartsong fern, male fern, cherry, tucson, horse chestnut, sessile oak, peduncle oak, wych hazel, field maple, ragwort, herb robert, yellow pimpernel. Additionally, a number of invader species were also identified including: Himalayan balsam, holly berry cotoneaster and rhododendron.
- 3.2.3 The three habitat types identified in these two land parcels have already been identified within the Order Scheme (refer to Table 3-7 in Volume 3, Appendix 6A of the Environmental Report [NR14]). These area-based habitat types, indicated in Table 3-1, can be added to the accumulated habitat types already recorded.

Table 3-1: Area-based habitat types present within the Order Scheme

UKHab Category	Area (ha)
h3h Mixed scrub	0.042
w1f Lowland mixed deciduous woodland	0.493
w1g Other broadleaved woodland	0.248
Total	0.784
Area not surveyed (due to access restrictions)	0.145

3.2.4 The following INNPS were identified in the land parcels: Himalayan balsam, hollyberry, cotoneaster and rhododendron. Photographs are provided in Table 5-2. These species have previously been identified to be located within the Order Scheme and are discussed in the full Environmental Report [NR14].

3.2.5 During the badger survey, mammal paths were identified on both land parcels. No badger setts or definitive badger signs were identified.

3.2.6 Initial Ground Level Tree Assessments (GLTA) were undertaken within the additional land parcels. Several features were identified, as summarised in Table 3-2, that could not be fully assessed (due to their location – i.e. elevation above the ground) and are there classified as Further Assessment Required (FAR). Photographs from site are provided within Table 5-1.

Table 3-2: Summary results from initial ground level tree assessments

Reference	Land parcel reference	Feature Type	Bat suitability rating	Notes
T1	Oaklands	Split in ash tree branch	FAR	Split in south-eastern facing branch, approximately 2 m up the tree.
T2	Oaklands	Snapped branch in ash tree	FAR	Western facing snapped branch.
T3	Oaklands	Tear in willow sp. branch	FAR	Tear is north facing tree branch (potentially extends into trunk).
T4	Oaklands	Tree with tear	PRF-I	Tear in south facing side tree trunk, approximately 1.5 m up tree. Endoscope inspection observed to extend 7 cm – although it had slugs in, potentially suitable to accommodate one bat.
T5	Oaklands	Cluster of trees with ivy	FAR	Several trees were identified to be covered with ivy that could

Reference	Land parcel reference	Feature Type	Bat suitability rating	Notes
				potentially conceal bat roosting features.
T6	Oaklands	Knot hole in tree	FAR	Knot hole in south-west facing side of trunk, approximately 2 m up tree trunk. Knot could not be inspected via endoscope.
T7	Oaklands	Tree with flaking bark and snapped branches	FAR	Flaking bark and several snapped branches on tree that (for the downward facing) could potentially be features.
T8	Oaklands	Tree with snapped branch	FAR	North-eastern facing snapped branch approximately 3 m up tree.
T9	Oaklands	Tree with split centre branch	PRF-I	Split in centre branch approximately 1 m up the tree. Endoscope inspection identified slugs but potential to accommodate one bat.
			FAR	Tear in limb approximately 3 m up the tree which could not be fully inspected. Additional (inaccessible) PRFs further up the tree were also identified.
T10	Blackrock	Sycamore tree with roll in trunk	FAR	Roll in trunk on south-western aspect approximately 4 m up the tree which could not be inspected.
T11	Blackrock	Knot in horse chestnut	FAR	Several knot holes on eastern aspect. Knot at approximately 2.5 m up the tree which could not be inspected
T12	Blackrock	Damp roll in sycamore tree	None	Roll on south-west of trunk was inspected with an endoscope. It extended approximately 10 cm and found to be damp; unlikely to support bats. Additional opening in roll identified further up but also unlikely to support bats.

3.2.7 Preliminary roost assessments (PRAs) were undertaken on the structures within the additional land parcels. A summary of results is provided in Table 3-3. Photographs are provided within Table 5-1.

Table 3-3: Summary results from bat preliminary roost assessments of structures

Reference	Land parcel reference	Feature Type	Bat Roost Suitability Rating	Notes
B1	Blackrock	Temporary building	Low	<p>Half constructed building with half of the walls concrete and half corrugated metal. Corrugated metal roof with wooden (rotting) barge boards.</p> <p>Holes were identified on southern and eastern aspects of building under the barge boards. A hole was identified in the wall of the northern aspect (close to the door) and in the window south-western aspect.</p> <p>The internal space was decaying and wet and thus holds low suitability.</p>
B2	Blackrock	Brick residence	Moderate	<p>Brick house with slate roof (in good condition) tiles and wooden soffits. The soffit in the western corner had a large hole (with cobwebs) but additional access points further along.</p> <p>There is a hole under the PVC ridge tile on the northern aspect.</p> <p>Good for foraging and commuting habitat, with potential of light pollution.</p> <p>House owner has indicated that bats have been observed.</p>

3.2.8 It is important to note that there was a section of land (within the Blackrock parcel) that was not surveyed, which could still hold both bat and badger potential.

4 MITIGATION

4.1.1 Detailed mitigation and control measures, embedded mitigation (EM) and specific mitigation (SM), are provided in Volume 3, Appendix 6A of the Environmental Report [NR14] and are still relevant and applicable for the two

additional land parcels. Specific considerations as a result of the evaluation completed of the additional land parcels are however highlighted below.

- 4.1.2 As part of the Code of Construction Practice (CoCP) outlined in a Landscape and Ecological Management Plan (LEMP) in Volume 3, Appendix 6A of the full Environmental Report [NR14] biosecurity measures (EM5) will be laid out to prevent the spread of INNPS. An INNPS Management Plan will be produced documenting the presence of INNPS and control measures to ensure they are not spreading beyond their current extent.
- 4.1.3 No badger setts were identified on the two additional land parcels. It is, however, important to note that a portion of Blackrock could not be accessed and as such, still could contain badger setts. If this area is going to be impacted through the proposed Order Scheme, then the precautionary measures (as laid out in Volume 3, Appendix 6A of the full Environmental Report [NR14]) will be applied (EM1, EM2 and EM3):
- Where feasible, a 20 m exclusion zone will be demarked around any active badger sett entrances.
 - Works will comprise of temporary minor de-vegetation only and restricted to hand tools.
 - No groundworks or machinery will be used.
 - Works will be constrained to daytime only; and
 - An Ecological Clerk of Works will provide support during de-vegetation, comprising pre-works checks and ensuring no mammal paths or sett entrances are obscured.
 - Consideration of the use and direction of lighting
 - Application of noise and vibration management plan
- 4.1.4 A number of features were identified during the GLTA, with ten trees (T1-3, T5-8 and T9-11) being flagged as 'FAR'. If these trees will be directly impacted by the Order Scheme, then further presence/ likely absence inspections will be carried out during detailed design and prior to the commencement of the project (either via tree climbing, aerial inspections, or emergence surveys).
- 4.1.5 For the two trees (T4 and T9) that were identified to be PRF-I, if the Order Scheme is expected to impact them then consideration of compensation and mitigation measures will be required. This includes considerations such as

that they will be felled in the presence of a licensed bat ecologist, and soft felling techniques will be used.

- 4.1.6 Two structures (B1 and B2) with bat roosting suitability were identified. If the Order Scheme is expected to impact these buildings, then additional surveys will be required.
- 4.1.7 In summary four features were identified, either during the GLTA or PRA to have bat roosting potential. Should any of the buildings or trees identified in these two additional land parcels be impacted by the Order Scheme then the following next steps will be required⁶:
- FAR – ten trees (T1-3, T5-8 and T9-11): Further survey work required to confirm further presence/ likely absence inspections.
 - PRF-I – two trees (T4 and T9): Consideration of compensation as well as additional cautionary measures required during the works.
 - Low suitability structure (B1): Completion of one dusk emergence survey between May and September.
 - Medium suitability structure (B1): Completion of two dusk emergence surveys between May and September, with at least one of the surveys between May and August.
- 4.1.8 The activities of the Order Scheme may also result in indirect impacts on the PRF's in these two land parcels through noise, vibration or lighting. Should this be the case then mitigation and control measures indicated in the ER be incorporated (in line with the CoCP) such as lighting measures (EM2), noise and vibration management plan (EM3).
- 4.1.9 It is, however, important to note that a portion of Blackrock could not be accessed and could as such still contain additional features that hold bat roosting potential.

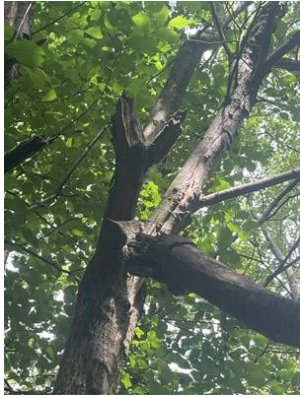
5 APPENDIX

5.1 Site photos

Table 5-1: Site photos of Potential Roosting features

Reference	Land parcel reference	Grid ref	Feature Reference	Photo
T1	Oaklands	SD 98645 04423	Split in ash tree branch	
T2	Oaklands	SD 98641 04427	Snapped branch in ash tree	
T3	Oaklands	SD 98669 04449	Tear in willow sp. branch	

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Reference	Land parcel reference	Grid ref	Feature Reference	Photo
T4	Oaklands	SD 98686 04470	Tree with tear	
T5	Oaklands	SD 98707 04483	Cluster of trees with ivy	
T6	Oaklands	SD 98742 04491	Knot hole in tree	
T7	Oaklands	SD 98753 04499	Tree with flaking bark and snapped branches	

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Reference	Land parcel reference	Grid ref	Feature Reference	Photo
T8	Oaklands	SD 98786 04510	Tree with snapped branch	
T9	Oaklands	SD 98884 04533	Tree with split centre branch	
				
T10	Blackrock	SD 97335 00499	Sycamore tree with roll	

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Reference	Land parcel reference	Grid ref	Feature Reference	Photo
				
T11	Blackrock	SD 97330 00513	Knot in horse chestnut tree	
T12	Blackrock	SD 97333 00523	Damp roll in sycamore tree	
B1	Blackrock	SD 97345 00497	Temporary building	

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Reference	Land parcel reference	Grid ref	Feature Reference	Photo
				
				
B2	Blackrock	SD 97362 00517	Brick residence	
				

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Reference	Land parcel reference	Grid ref	Feature Reference	Photo
				

Table 5-2: Site photos of Target notes

Reference	Land parcel reference	Grid ref	Feature Reference	Photo
1	Oaklands	SD 98780 04488	Holly berry cotoneaster	
2	Oaklands	SD 98786 04502	Cotoneaster	

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Reference	Land parcel reference	Grid ref	Feature Reference	Photo
3	Oaklands	SD 98795 04516	Stand of rhododendron	
4	Oaklands	SD 98822 04526	End of rhododendron stretch	
5	Oaklands	SD 98852 04529	Dense Himalayan balsam	