

# A1 in Northumberland: Morpeth to Ellingham

# Scheme Number: TR010059

# Bat Activity 2020 Verification Survey Report Part A

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Infrastructure Planning (Prescribed Forms and Procedure) Regulations 2009

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Infrastructure Planning

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The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

## The A1 in Northumberland: Morpeth to Ellingham

Development Consent Order 20[xx]

Bat Activity 2020 Verification Survey Report Part A

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# CONTENTS

## **EXECUTIVE SUMMARY**

1	INTRODUCTION	1
1.1	SCHEME BACKGROUND	1
1.2	ECOLOGICAL BACKGROUND	1
1.3	BRIEF AND OBJECTIVES	2
2	METHODS	3
2.1	DUSK EMERGENCE / PRE-DAWN RE-ENTRY SURVEYS	3
2.2	DATA ANALYSIS	3
2.3	NOTES AND LIMITATIONS	4
3	RESULTS	6
3.1	BAT DUSK EMERGENCE / PRE-DAWN RETURN SURVEY	6
4	DISCUSSION AND EVALUATION	9
4.1	BAT ROOST RESULTS COMPARISON	9
4.2	EUROPEAN PROTECTED SPECIES LICENSING	11
4.3	FURTHER SURVEYS	11
5	LEGAL AND PLANNING POLICY CONTEXT	13
5.1	LEGAL COMPLIANCE	13
5.2	PLANNING POLICY COMPLIANCE	14
6	CONCLUSION	16
	REFERENCES	18



## TABLES

Table 3-1 - Building Dusk Emergence/Dawn Re-entry Results (2017 and 2020)					
Table 3-2 - Tree Dusk Emergence/Dawn Re-entry Results (2017 and 2020)					
FIGURES					
Figure 1 - Location Overview Map	19				
Figure 2 - Verification Bat Dusk Emergence/Dawn Re-entry Survey Results	20				

## **APPENDICES**

APPENDIX A WEATHER DATA AND SURVEY DATES/TIMES



# **EXECUTIVE SUMMARY**

An application for a Development Consent Order (DCO) was made by Highways England (Applicant) on 07 July 2020 to the Secretary of State for Transport via the Planning Inspectorate (Inspectorate) under the Planning Act 2008 (2008 Act). If made, the DCO would grant consent for the A1 in Northumberland: Morpeth to Ellingham (Scheme). The Scheme comprises Part A: Morpeth to Felton (Part A) and Part B: Alnwick to Ellingham (Part B). This report relates to Part A only.

The original dusk emergence/dawn re-entry bat surveys were completed in 2017. Due to the age of the original assessment, verification dusk emergence/dawn re-entry bat surveys were completed in 2020 for Part A to verify the impact assessment and mitigation detailed within **Chapter 9: Biodiversity Part A** of the ES [**APP-048**]. The scope of the verification survey has been discussed and agreed with Natural England.

The verification surveys comprised a single survey (dusk emergence or dawn re-entry) of each building and tree previously surveyed in 2017 that may be impacted by Part A (either directly lost or subject to high levels of disturbance). This consisted of five buildings and 28 trees within the Order Limits plus 100 m (the Survey Area). During the surveys, access was achieved to all five buildings and 21 of the trees. The access constraints are summarised and discussed within the limitations section of this report.

The verification surveys recorded a single soprano pipistrelle roosting in building B84A, although did not record the common pipistrelle or brown long-eared bat roosts that were recorded in 2017. As the impact assessment and mitigation detailed in **Chapter 9: Biodiversity Part A** of the ES [**APP-048**] considers the impacts on all three roosts, the existing mitigation is sufficient.

A new bat roost was recorded in building B105A. Whilst the roost may be subject to disturbance during construction due to its proximity to construction activities, the existing mitigation developed as part of the Scheme shall be extended to include building B105A and will be captured in the Construction Environmental Management Plan (CEMP). This is considered sufficient to reduce or avoid significant impacts to building B105A. Therefore, making it non-licensable disturbance. This has been captured within A-B24 of the updated Outline CEMP, which is issued at Deadline 1.

A single soprano pipistrelle and an unconfirmed bat were recorded roosting within bat boxes of tree T148A. Tree T148A will be lost to the Scheme to facilitate construction and therefore it will be necessary to relocate the bat boxes. Following consultation with Natural England, this shall be completed under a European Protected Species (EPS) licence. Further survey would be required to confirm the species present. The requirement of a licence and further survey has been captured within A-B19 and A-B25 of the updated Outline CEMP, which is issued at Deadline 1.



Trees T51A, T54A, T56A and T131A were not surveyed due to access restrictions. These trees shall be lost to the Scheme and are therefore recommended for further survey. At the time of this report, the Applicant is arranging access for the completion of a climb and inspect survey during the winter/spring of 2020/21 to supplement the verification survey. However, if this survey is not possible, existing mitigation includes the completion of further survey of Moderate and High roosting suitability trees prior to construction (which would include trees T51A, T54A, T56A and T131A). This is detailed and secured within measure S-B7 of the **Outline Construction Environmental Management Plan (CEMP) [APP-346]**.



## 1 INTRODUCTION

## 1.1 SCHEME BACKGROUND

- 1.1.1. An application for a Development Consent Order (DCO) was made by Highways England (Applicant) on 07 July 2020 to the Secretary of State for Transport via the Planning Inspectorate (Inspectorate) under the Planning Act 2008 (2008 Act). If made, the DCO would grant consent for the A1 in Northumberland: Morpeth to Ellingham (Scheme). The Scheme comprises:
  - a. Part A: Morpeth to Felton (Part A) is located on the A1 between Warrener's House Interchange at Morpeth and the existing dual carriageway at Felton. It is approximately 12.6 km in length.
  - b. Part B: Alnwick to Ellingham (Part B) starts approximately 15 km north of the northern extent of Part A, is located along the A1 between Alnwick and Ellingham and is approximately 8 km in length.
- 1.1.2. A detailed description of the Scheme as a whole can be found in **Chapter 2: The Scheme** of the Environmental Statement (ES) [**APP-037**].
- 1.1.3. The original dusk emergence/dawn re-entry bat surveys were completed in 2017 (refer to Appendix 9.8: Bat Activity Survey Report Part A of the ES [APP-234]. Due to the age of the original assessment, verification dusk emergence/dawn re-entry bat surveys were completed in 2020 for Part A to verify the impact assessment and mitigation detailed within Chapter 9: Biodiversity Part A of the ES [APP-048].
- 1.1.4. The verification surveys detailed within this report were specific to Part A, and did not include an assessment of Part B. Bat surveys of trees and buildings for Part B were undertaken in 2018/19 and therefore the data is considered current. As such, a verification survey of Part B was not considered necessary. Natural England confirmed during a meeting on 15 December 2020 that the ecological surveys undertaken to date for the Scheme, including those for Part B, were appropriate, including methodologies, timing and extent. This is documented within the Natural England Statement of Common Ground.

## 1.2 ECOLOGICAL BACKGROUND

- 1.2.1. In 2016, a Preliminary Bat Roost Assessment (PBRA) was undertaken for trees and buildings within 100 m of Part A (Appendix 9.7: Bat Roost Potential Survey Report 2017 of the ES [APP-233], referred to as Section A in the appendix) to determine the likelihood of trees/buildings to support roosting bats.
- 1.2.2. In 2017, bat activity surveys (dusk emergence/dawn re-entry) were undertaken for trees/buildings previously identified to determine the presence/likely absence of roosting bats (Appendix 9.8: Bat Activity Survey Report Part A of the ES [APP-234]). Bat roosts were recorded in three buildings/structures; referenced as buildings B4A, B84A and B86A. These roosts were occupied by small numbers of common species, including common



pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus* and brown longeared bat *Plecotus auritus*. Additionally, four tree roosts were recorded (trees T220A, T136A and two separate roosts in bat boxes on the two trees identified as T147A), all supporting small numbers of soprano pipistrelle.

- 1.2.3. In order to address access limitations during the 2016/17 surveys, external PBRAs were conducted for three buildings and 24 trees/tree groups in 2018 as well as dusk emergence/dawn re-entry surveys of five building/structures and one group of trees (Appendix 9.9: Bat Survey Report 2018 Part A of the ES [APP-235]). The 2018 surveys recorded a roost within building B8A (single common pipistrelle *Pipistrellus pipistrellus*) and B86A, the River Coquet Bridge (single soprano pipistrelle *Pipistrellus pygmaeus*). Due to access refusal for surveys, as agreed with Natural England, bat roosts were assumed present within building B101A (as detailed in Appendix 9.9: Bat Survey Report 2018 Part A of the ES [APP-235]). As the data for buildings/structures and trees surveyed in 2018 is two years old, the data is considered valid and validation surveys have not been undertaken.
- 1.2.4. A verification ground-level assessment of buildings, trees and woodlands was carried out during 2020 to verify the results of previous survey work undertaken for Part A in 2016/17. The results of this assessment are covered separately in another report; Bat Preliminary Bat Roost Assessment 2020 Verification Survey Report Part A (Document Reference: 6.18) (**Ref. 1**).

## 1.3 BRIEF AND OBJECTIVES

- 1.3.1. The Applicant commissioned a single verification survey (dusk emergence or dawn re-entry) of each of the buildings and trees previously surveyed in 2017 within the Order Limits of Part A plus 100 m, defined as the Survey Area, which may be impacted by Part A. The brief was to verify the results against the impact assessment and mitigation, documented in Chapter 9: Biodiversity Part A of the ES [APP-048]. In the event that a new bat roost is recorded, appropriate recommendations for mitigation and compensation would be provided.
- 1.3.2. The results of these surveys and a comparison to the previous survey results are presented within this report.
- 1.3.3. The scope of the verification survey was discussed with Natural England, who confirmed in an email dated 30 June 2020 that "given that more or less all the surveys [discussing the ecological surveys in general] are less than three years old they would be considered to be valid and thus the scope of the verification surveys would appear to be appropriate particularly since there has not been any significant change in land use since the original surveys were undertaken." This consultation will be documented within the Natural England Statement of Common Ground.



## 2 METHODS

## 2.1 DUSK EMERGENCE / PRE-DAWN RE-ENTRY SURVEYS

- 2.1.1. Buildings and trees within the Survey Area were subject to a verification survey (where access was permitted) to identify the presence/likely absence of a roost and characterise any roosts recorded. Surveys were undertaken between 07 July and 26 August 2020 by experienced bat surveyors during suitable weather conditions, in accordance with best practice guidelines (**Ref. 2**).
- 2.1.2. The dates and type (dusk/dawn re-entry) of each survey conducted, the number of surveyors, weather conditions and the timing of each survey (start, end and sunset/sunrise time) are presented in **Appendix A, Table A1**. The location of each building and tree is shown on **Figure 2-1** to **2-7**.
- 2.1.3. Surveyor locations were utilised to fully cover the potential roosting features on each building and tree.
- 2.1.4. The dusk emergence surveys began 15 minutes before sunset and continued until 90-120 minutes after sunset. The dawn re-entry surveys began 90-120 minutes before sunrise and finished 15 minutes after sunrise.
- 2.1.5. The surveyors primarily used Duet (Batbox) detectors, with Roland recorders or an accompanying Song Meter 2 (SM2) (© Wildlife Acoustics, Inc.) detector to listen to and record echolocation calls of bats observed. An Echo Meter Touch 2 (EMT2) (© Wildlife Acoustics, Inc.) was also used on occasion. During the survey, surveyors mapped the flight-lines used by any bats observed and noted any features used by the bats to exit/enter the buildings or trees. Incidental records of bat activity in the vicinity of the surveyor locations were also collected. This methodology is in line with good practice guidance (**Ref. 2**).

## 2.2 DATA ANALYSIS

- 2.2.1. Where bats were observed emerging from or re-entering buildings or trees, the recordings of the bat echolocation calls collected during these surveys were analysed using specialist computer software Kaleidoscope. The analysis enables confirmation of species or species group based on call parameters. Recordings made using the Roland are manually started and stopped by the surveyor. Once triggered by ultrasound, the SM2 and EMT2 detectors record sound files with a duration of 15 seconds, which may contain a number of individual bat calls (or passes), or discrete groups of ultrasound 'pulses'.
- 2.2.2. It should be recognised that a series of separate sound files may represent a series of different bats commuting within the range of an automated detector, or a smaller number of bats repeatedly triggering the detector (e.g. bats making repeated foraging passes within the range of a detector).
- 2.2.3. Where possible, bat calls are identified to species level. However, species of the genus Myotis are grouped together in most cases as their calls are similar in structure and have



overlapping call parameters, making species identification problematic (**Ref. 3**). For Pipistrellus species the following criteria based on measurements of peak frequency are used to classify calls:

- a. Common pipistrelle $\geq 42$  and <49KHz;b. Soprano pipistrelle $\geq 51$ KHz;c. Nathusius' pipistrelle *Pipistrellus nathusii*<39KHz;d. Common/soprano pipistrelle $\geq 49$  and <51KHz; ande. Common/Nathusius' pipistrelle $\geq 39$  and <42KHz.
- 2.2.4. In addition, the following categories are used for calls which cannot be identified with confidence due to the overlap in call characteristics between species or species groups:
  - a. Myotis/Plecotus sp.;
  - b. Nyctalus sp. (either Leisler's bat Nyctalus leisleri or noctule Nyctalus noctula);
  - c. Serotine Eptesicus serotinus/Leisler's; and
  - d. Serotine/Plecotus sp.

## 2.3 NOTES AND LIMITATIONS

- 2.3.1. The verification surveys for trees T209A and T215A were cancelled due to unsuitable weather conditions (heavy rains) (shown in Figure 2-1 to 2-7). As these surveys were scheduled in late August, it was not possible to reschedule the survey within the May to August period. Tree T210A is directly adjacent to T209A and T215A is approximately 20m to the south of trees T216A and T217A. The nearby trees were successfully surveyed and recorded relatively low levels of bat activity that did not suggest the presence of a bat roost within the trees not surveyed (T209A and T215A). Whilst the absence of survey data presents a limitation to the objective of the 2020 verification survey, the nearby data collected would not suggest the presence of a roost. In addition, both trees are to be retained within the Scheme. Overall, the impact assessment and mitigation detailed within Chapter 9: Biodiversity Part A of the ES [APP-048] is considered valid.
- 2.3.2. Access was not granted to trees T51A, T54A, T56A and T131A (shown in Figure 2-1 to 2-7). These four trees shall be lost to the Scheme and therefore the lack of access to complete a survey presents a limitation to the objectives of the 2020 verification survey. A climb and inspect survey is proposed during the autumn/winter of 2020 as an alternative survey method. In addition, the existing mitigation includes the completion of an ecological inspection and/or dusk/dawn re-entry survey of Moderate or High roosting suitability trees pre-construction, to confirm that baseline conditions remain the same (refer to DM006 in Table 9-23 of Chapter 9: Biodiversity Part A of the ES [APP-048]). As such, the existing mitigation is considered valid and suitable in the event that a 2020 verification survey cannot be undertaken.
- 2.3.3. Access was also not granted to trees T136A, T214A and T220A (shown in Figure 2-1 to 2-7), although all three trees shall be retained within the Scheme. In addition, precautionary working methods are proposed to reduce the impacts of disturbance to the bat roosts within



T136A and T220A (see EM009 within Table 9-23 of **Chapter 9: Biodiversity Part A** of the ES [**APP-048**]). As such, the absence of a 2020 verification survey is not considered a significant constraint.

2.3.4. A bat was observed emerging from tree T148A but did not echolocate upon emergence and therefore an identification of species was not possible. This limitation has been taken into consideration within the recommendations of this report.



## 3 **RESULTS**

## 3.1 BAT DUSK EMERGENCE / PRE-DAWN RETURN SURVEY

- 3.1.1. Of the five buildings and 21 trees surveyed (including trees T147A and T148A, which each comprise two adjacent trees) within the Survey Area, bat roosts were identified in two buildings and two bat boxes attached to trees.
- 3.1.2. A single soprano pipistrelle was seen re-entering building B84A through a gap below a bargeboard on the eastern aspect of the building during the dawn re-entry survey on 21 August 2020.
- 3.1.3. During the dusk emergence survey of building B104A on 19 August 2020, three soprano pipistrelle bats were recorded emerging from a gap in the western side of an attached garage block (building B105A).
- 3.1.4. During the dusk emergence survey of the two trees that comprise T148A on 21 July 2020, a single soprano pipistrelle and an individual unconfirmed species of bat were recorded emerging, each one from a different bat box.
- 3.1.5. Tables 3-1 and 3-2 further below provide a comparison of baseline data from 2017 and the 2020 verification data. The tables present only the roosts recorded in 2017 and 2020. Where a roost was not recorded in relation to a building or tree during both 2017 and 2020, these are not detailed within the tables below. For more detail of the roosts recorded in 2017, refer to Appendix 9.8: Bat Activity Survey Report Part A [APP-234]

Table 2.1 Ruilding Duck Emer	aonco/Down Bo ontr		(2017 and 2020)
Table 3-1 - Dullully Dusk Liller	gence/Dawn Refend	y nesulis (	2017 anu 2020)

Building			2017			2020
Reference	No. of roosts	No. of bats emerged/re- entered/Species	Roost Location(s)	No. of roosts	No. of bats emerged/re- entered/Species	
B4A	1	Two common pipistrelle	From behind a bargeboard on the northern aspect of the house	None	N/A	
B84A	3	One brown long- eared bat One soprano pipistrelle One common pipistrelle	From beneath roof tiles on western gable end From beneath roof tiles on western gable end Entered at base of window on southern side of building	1	One soprano pipistrelle	Re-entered throug the middle stone
B105A	None	N/A	N/A	1	Three soprano pipistrelle	From a gap on we

#### Table 3-2 - Tree Dusk Emergence/Dawn Re-entry Results (2017 and 2020)

Tree	2017				2020	
Reference	No. of roosts	No. of bats emerged/re- entered/Species	Roost Location(s)	No. of roosts	No. of bats emerged/re- entered/Species	
T136A	1	Three soprano pipistrelle	On the lowest branch (approximately 2 m high on southern aspect)		Not surveyed (n	D a
T147A (two trees)	2	One soprano pipistrelle	Entered bat box on first tree	None	N/A	
		One common pipistrelle	Entered bat box on second tree			
T148A (two trees)	None	N/A	N/A	2	One soprano pipistrelle	
					One unconfirmed bat (bat observed emerging but did not echolocate)	





January 2021

Tree		2017			2020		
Reference	No. of roosts	No. of bats emerged/re- entered/Species	Roost Location(s)	No. of roosts	No. of bats emerged/re- entered/Species		
T220A	1	Two soprano pipistrelle	A tear out		Not surveyed (r	10 8	



## Roost Location(s)

access)



## 4 DISCUSSION AND EVALUATION

## 4.1 BAT ROOST RESULTS COMPARISON

#### B4A

- 4.1.1. In 2017, two common pipistrelle were recorded emerging from behind a bargeboard on the northern aspect of building B4A. No bats were observed emerging during the 2020 survey. As the current impact assessment accounts for the presence of a bat roost and includes the requirements for a European Protected Species (EPS) licence application, the existing mitigation detailed in Chapter 9: Biodiversity Part A of the ES [APP-048] is considered suitable.
- 4.1.2. A draft bat EPS licence application was produced as part of the ES (Appendix 9.22: Bat Method Statement Part A of the ES [APP-248]). The draft bat licence application was issued to Natural England in February 2020. Following review, a Letter of No Impediment was received in from Natural England in May 2020. The letter confirms that, on the basis of the information and proposals provided, Natural England sees no impediment to a licence being issued, should the DCO be granted.

#### B84A

- 4.1.3. In 2017, a single brown long-eared bat and a single soprano pipistrelle were observed emerging from beneath roof tiles on the western gable. A single common pipistrelle was recorded re-entering the base of a window on the southern aspect of the building.
- 4.1.4. In 2020, a single soprano was observed re-entering from a different location to the two observed locations during the 2017 survey; through a gap below the bargeboard above the middle stone archway on the eastern aspect of the building.
- 4.1.5. The 2020 survey only recorded the soprano pipistrelle roost within building B84A. B84A shall be retained within the Scheme, although subject to disturbance during construction. As a reduction in bat roosting activity was recorded during 2020 (both species and number of individuals), the impact assessment and mitigation (precautionary working methods) detailed within Chapter 9: Biodiversity Part A of the ES [APP-048] are considered valid.

#### B105A

- 4.1.6. No roosts were recorded within this building during the 2017 surveys.
- 4.1.7. In 2020, a roost was identified in a gap in the wall on the western edge of a garage building, B105A (immediately adjacent to B104A, refer to **Figure 2-6**) from which three soprano pipistrelle emerged. The roost is located approximately 30m to the south of the Scheme, where a slip road shall be constructed to the west of West Moor Junction. As such, the roost may be subject to temporary disturbance (primarily noise and light) during construction. Due to the presence of the existing road to the north of the building, there are no additional predicted impacts during the operation of the Scheme.



- 4.1.8. The existing mitigation includes the implementation of a suitable lighting design (if required) during construction, which would be implemented throughout the Scheme including in proximity to building B105A. In addition, mitigation is also in place for other retained roosts along Part A with regards to the timing of works that may incur heavy disturbance (such as piling or intrusive ground works); these works are not considered to require a EPS licence and shall be conducted under a Precautionary Working Method Statement (PWMS) during the periods March to May and September to November. This mitigation shall be extended to include building B105A and will be captured in the Construction Environmental Management Plan (CEMP).
- 4.1.9. Although a new roost was recorded in building B105A in 2020, it is considered that the current mitigation (precautionary working methods) detailed in Chapter 9: Biodiversity Part A of the ES [APP-048] is sufficient to reduce the disturbance impacts to the roost during the construction period. An update has been made to A-B24 of the Outline CEMP to include PWMS for B105A. The updated Outline CEMP is issued at Deadline 1.

#### T147A

- 4.1.10. In 2017, a single common pipistrelle and a single soprano pipistrelle were recorded emerging from two bat boxes on tree T147A (two trees close together, each with a bat box attached). No bats were observed emerging during the 2020 survey.
- 4.1.11. Whilst no bat roosting activity was recorded within the two bat boxes of tree T147A in 2020, bats are known to use bat boxes and tree roosts sporadically. The two bat boxes on tree T147A are considered to still support a bat roost. The impact assessment and mitigation detailed within Chapter 9: Biodiversity Part A of the ES [APP-048] is considered valid. Both bat boxes shall be retained as part of the Scheme, although may be subject to temporary disturbance during construction. Precautionary working methods shall be implemented during construction to reduce the impacts of disturbance and avoid the requirement for an EPS licence.

## T148A

- 4.1.12. No roosts were recorded in relation to tree T148A during surveys in 2017. However, in 2020 a single soprano pipistrelle and a single unconfirmed bat were observed emerging from two bat boxes on T148A (two trees close together, each with two bat boxes attached). This represents a change to the baseline data, with a new roost recorded.
- 4.1.13. Tree T148A will be lost to the Scheme to facilitate construction. In the absence of mitigation, the Scheme would result in the loss of the roosts supported by the bat boxes of tree T148A. To ensure that construction activities do not result in a breach of legislation (refer to Section 5), it will be necessary to relocate the bat boxes. Due to the limitation detailed within paragraph 2.3.4 (unconfirmed species emergence), further survey would be required to confirm the species present. The relocation of the bat boxes shall be completed under an EPS licence. The approach to be taken has been discussed and agreed with Natural



England. The requirement of a licence and further survey has been captured within A-B19 and A-B25 of the updated Outline CEMP, which is issued at Deadline 1.

#### Other Buildings and Trees

- 4.1.14. Trees T209A, T215A, T136A, T214A and T220A, which were also not surveyed during 2020, are all to be retained as part of the Scheme. The impact assessment and mitigation detailed within **Chapter 9: Biodiversity Part A** of the ES [**APP-048**] is considered valid.
- 4.1.15. With the exception of those buildings and trees detailed above, there were no changes to the roosting status of other buildings and trees which were also surveyed in 2017
   (Appendix 9.8: Bat Activity Survey Report Part A [APP-234] and Appendix 9.9: Bat Survey Report 2018 Part A [APP-235] of the ES).

## 4.2 EUROPEAN PROTECTED SPECIES LICENSING

- 4.2.1. Existing mitigation includes the requirements of an EPS licence application for building B4A (see mitigation item EM008 of Table 9-23 of Chapter 9: Biodiversity Part A of the ES [APP-048]. This requirement remains the same.
- 4.2.2. The roosts supported by the bat boxes of tree T148A would be lost as a result of the Scheme. As confirmed in consultation with Natural England, the relocation of the bat boxes would require an EPS licence. This requirement has been captured within A-B25 of the updated Outline CEMP, which is issued at Deadline 1.
- 4.2.3. Disturbance impacts are predicted during construction to the roosts supported by buildings B84A and B105A and tree T147A, although the level of disturbance would not require an EPS licence. Existing mitigation includes precautionary working methods for activities in proximity to B84A and T147A (and other bat roosts of Part A; see mitigation item EM009 of Table 9-23 of Chapter 9: Biodiversity Part A of the ES [APP-048]. It is recommended that these measures are extended to include the roost supported by building B105A, which is located close to other roosts covered by the existing mitigation. As detailed in paragraph 4.1.9 above, an update has been made to A-B24 of the Outline CEMP to include precautionary working methods for B105A. The updated Outline CEMP is issued at Deadline 1.

## 4.3 FURTHER SURVEYS

4.3.1. Trees T51A, T54A, T56A and T131A, which were not surveyed due to access limitations are recommended for further survey as they will be lost to the Scheme. At the time of this report, the Applicant is arranging access for the completion of a climb and inspect survey during the winter/spring of 2020/21 as an alternative survey method to support the verification survey. However, if this further survey is not possible, existing mitigation (refer to DM006 in Table 9-23 of Chapter 9: Biodiversity Part A of the ES [APP-048]) includes the completion of further survey of Moderate and High roosting suitability trees prior to construction (which would include trees T51A, T54A, T56A and T131A). This is detailed and



secured within measure S-B7 of the **Outline Construction Environmental Management Plan (CEMP) [APP-346]**.

- 4.3.2. As an EPS licence is required for the relocation of the bat boxes appended to tree T148A, further survey would be required to confirm the species present and inform the licence (particularly in response to the limitation detailed in **paragraph 2.3.4**; unconfirmed species emergence). This may take the form of visual inspections by a licensed ecologist, DNA analysis of bat droppings and/or dusk emergence/dawn re-entry surveys. The further survey of the bat boxes of tree T148A has been captured within A-B19 of the updated Outline CEMP, which is issued at Deadline 1.
- 4.3.3. Further to **paragraph 4.3.3** above, any roosts associated with EPS licensing requirements would need a walkover survey within 3 months prior to an application submission to ensure conditions have not changed since the most recent survey was undertaken. This pre-application check must be undertaken by a suitably experience ecologist.



## 5 LEGAL AND PLANNING POLICY CONTEXT

#### 5.1 LEGAL COMPLIANCE

- 5.1.1. Bats and their roosts are afforded a high level of protection under the Conservation of Habitats and Species Regulations 2017 (as amended) (Habitats Regulations) (**Ref. 4**), the legislation means that it is an offence to:
  - a. Deliberately capture, injure or kill a wild bat;
  - **b.** Deliberately disturb wild bats; '*disturbance of animals includes in particular any disturbance which is likely:* 
    - (a) to impair their ability —

(i) to survive, to breed or reproduce, or to rear or nurture their young; or
(ii) in the case of animals of a hibernating or migratory species, to hibernate or
migrate; or
(b) to affect significantly the local distribution or abundance of the species to which they belong' and

- c. Damage or destroy a breeding site or resting place used by this species.
- 5.1.2. Protection is also afforded under the Wildlife and Countryside Act 1981 (as amended) (**Ref.**5) with respect to disturbance of animals when using places of shelter and obstruction of access to places of shelter.
- 5.1.3. Due to the high level of protection afforded to bats and their habitat, mitigation for this species is governed by a strict licensing procedure administered by Natural England (normally, planning permission must be obtained before a licence can be sought). Licencing is subject to three tests, as defined under the Habitats Regulations, these must also be applied by the planning authority before granting permission for activities affecting bats. For permission to be granted the following criteria must be satisfied:
  - a. The proposal is necessary 'to preserve public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment';
  - b. 'There is no satisfactory alternative'; and
  - **c.** The proposals 'will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range'.
- 5.1.4. Certain species of bats including noctule, brown long-eared bat and soprano pipistrelle are also listed as a Species of Principal Importance (SPI) for the Conservation of Biodiversity in England under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 (**Ref. 6**). Under Section 40 of the NERC Act 2006 public bodies (including local planning authorities) have a duty to have regard for the conservation of SPI when carrying out their functions, including determining planning applications.



## 5.2 PLANNING POLICY COMPLIANCE

- 5.2.1. At the national level, the Scheme is governed by the National Policy Statement for National Networks (NPS NN) (2014) (Ref. 7). The NPS NN states that, "as a general principle, … development should avoid significant harm to biodiversity … conservation interests, including through mitigation and consideration of reasonable alternatives… Where significant harm cannot be avoided or mitigated, as a last resort, appropriate compensation measures should be sought". In addition, the National Planning Policy Framework (NPPF) (Ref. 8) forms the basis for planning system decisions with respect to conserving and enhancing the natural environment, including bats; the ODPM circular 06/2005 (Ref. 9) (referenced within the NPS NN) also provides supplementary guidance, including confirmation that 'the presence of a protected species is a material consideration when a planning authority is considering a development proposal'.
- 5.2.2. The NPPF sets out, amongst other points, how at an overview level 'planning policies and decisions should contribute to and enhance the natural and local environment by:

...recognising ... the wider benefits from natural capital and ecosystem services; and minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures...'

5.2.3. A list of principles which local planning authorities should follow when determining planning applications is included in the NPPF, and includes the following:

'if significant harm resulting from a development cannot be avoided...adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused; and

opportunities to incorporate biodiversity improvements in and around developments should be encouraged ...'

- 5.2.4. In addition, the legislative provision described above, planning policy at the local level is informed by the following:
  - a. Northumberland County Council (NCC) Consolidated Planning Policy Framework May 2019 (Ref. 10)
  - **b.** Northumberland Local Plan Draft Plan for Regulation 18 Consultation (**Ref. 11**)
  - c. Northumberland Local Biodiversity Action Plan (LBAP) (Ref. 12)
- 5.2.5. Under the Northumberland Consolidated Planning Policy Framework, the Former Castle Morpeth District Local Plan (**Ref. 13**) is applicable to Part A.
- 5.2.6. Full details of the local planning policies relevant to Part A are detailed in **Table 9-3** of **Chapter 9: Biodiversity Part A** of the ES [**APP-048**].
- 5.2.7. Certain species of bats are also priority species in the UK Biodiversity Action Plan (UKBAP), are listed as Species of Principal Importance in Section 41 of the NERC Act 2006, and are



also listed in the Northumberland BAP<sup>1</sup>. These species include soprano and common pipistrelle which were both observed emerging from structures during the dusk emergence/dawn re-entry surveys, and using Crossing Points to travel unsafely over the A1 at multiple locations.

5.2.8. Mitigation, compensation and enhancement measures are recommended in Chapter 9: Biodiversity Part A of the ES [APP-048] to enable the Scheme to be compliant with the above legislation and planning policy. These measures shall be secured through the Outline CEMP, which has been updated to capture additional mitigation to address the findings of the 2020 verification surveys.

<sup>&</sup>lt;sup>1</sup> https://www.nwt.org.uk/sites/default/files/2018-10/Nland\_Biodiversity\_Action\_Plan.pdf



## 6 CONCLUSION

- 6.1.1. The original dusk emergence/dawn re-entry bat surveys were completed in 2017 (refer to Appendix 9.8: Bat Activity Survey Report Part A of the ES [APP-234]). Due to the age of the original assessment, verification dusk emergence/dawn re-entry bat surveys were completed in 2020 for Part A to verify the impact assessment and mitigation detailed within Chapter 9: Biodiversity Part A of the ES [APP-048].
- 6.1.2. The verification surveys consisted of a single dusk emergence or dawn re-entry survey for each building and tree identified within the Survey Area. Due to access constraints and weather conditions, surveys for trees T51A, T54A, T56A, T131A, T136A, T209A, T214A, T215A and T220A were not undertaken. This is acknowledged within the limitations of this report and further survey has been recommended as required.
- 6.1.3. Bat dusk emergence/dawn re-entry verification surveys were undertaken on five buildings and 21 trees across the Survey Area. The verification surveys recorded a single soprano pipistrelle roosting in building B84A, although did not record the common pipistrelle or brown long-eared bat roosts that were recorded in 2017. As the impact assessment and mitigation detailed in **Chapter 9: Biodiversity Part A** of the ES [**APP-048**] considers the impacts on all three roosts, the existing mitigation is sufficient.
- 6.1.4. A new bat roost was recorded in building B105A. Whilst the roost may be subject to disturbance during construction due to its proximity to construction activities, the existing mitigation (precautionary working methods) developed as part of the Scheme shall be extended to include building B105A. This has been updated within A-B24 of the Outline CEMP, which is issued at Deadline 1. This is considered sufficient to reduce or avoid significant impacts to building B105A.
- 6.1.5. No bats were recorded in 2020 emerging from the roosts previously recorded in 2017 in relation to building B4A (two common pipistrelle) and the bat boxes of tree T147A (a single common pipistrelle and a single soprano pipistrelle). However, these remain roosts afforded protection under legislation. As such, the impact assessment and mitigation detailed in **Chapter 9: Biodiversity Part A** of the ES [**APP-048**] remains valid. This includes the exclusion of bats from the building and/or an ecologically supervised soft strip of the building as part an EPS licence for B4A and the implementation of precautionary working methods to reduce the impacts of disturbance during construction for the retained roosts associated with tree T147A.
- 6.1.6. A single soprano pipistrelle and an unconfirmed bat were recorded roosting within bat boxes of tree T148A. Tree T148A will be lost to the Scheme to facilitate construction and therefore it will be necessary to relocate the bat boxes. The relocation of the bat boxes shall be completed under an EPS licence, as confirmed with Natural England. In addition, further survey would be required to confirm the species present. The requirement of a licence and further survey has been captured within A-B19 and A-B25 of the updated Outline CEMP, which is issued at Deadline 1.



6.1.7. Trees T51A, T54A, T56A and T131A were not surveyed due to access restrictions. These trees shall be lost to the Scheme and are therefore recommended for further survey. At the time of this report, the Applicant is arranging access for the completion of a climb and inspect survey to supplement the verification survey. However, if this survey is not possible, existing mitigation (refer to DM006 in **Table 9-23** of **Chapter 9: Biodiversity Part A** of the ES [**APP-048**]) includes the completion of further survey of Moderate and High roosting suitability trees prior to construction (which would include trees T51A, T54A, T56A and T131A).



## REFERENCES

- **Ref. 1** WSP (2020). Preliminary Bat Roost Assessment Verification Survey Report Buildings and Trees. WSP UK.
- **Ref. 2** Collins, J (2016). Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). The Bat Conservation Trust, London.
- **Ref. 3** Russ, J (2013). British Bat Calls a Guide to Species Identification. Pelagic Publishing.
- **Ref. 4** HMSO (2017). The Conservation of Habitats and Species Regulations (as amended) (the Habitat Regulations)
- **Ref. 5** Her Majesty's Stationary Office (HMSO) (1981). Wildlife and Countryside Act (as amended by the Countryside and Rights of Way Act 2000)
- **Ref. 6** HMSO (2006). Natural Environment and Rural Communities Act.
- **Ref. 7** Department for Transport (2014). National Policy Statement for National Networks. Department for Transport, London.
- **Ref. 8** Department for Communities and Local Government (2019). National Planning Policy Framework. Department for Communities and Local Government, London.
- **Ref. 9** HMSO (2005). Biodiversity and Geological Conservation Statutory Obligations and Their Impact Within the Planning System. Office of the Deputy Prime Minister (ODPM) Circular 06/2005 HMSO, Norwich.
- **Ref. 10** Northumberland County Council (2019). Northumberland Consolidated Planning Policy Framework. Version 27, May 2019.
- **Ref. 11** Northumberland County Council (2019). Northumberland Local Plan Draft Plan for Regulation 19 Consultation. January 2019.
- Ref. 12 Northumberland Wildlife Trust (NWT). <u>http://www.nwt.org.uk/northumberland-BAP</u> [Accessed 01 September 2020]
- **Ref. 13** Former Castle Morpeth Borough Council (2003). Castle Morpeth District Local Plan, 1991 2006. Adopted February 27th, 2003, Published July 2003.





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# **Appendix A**

## WEATHER DATA AND SURVEY DATES/TIMES

## Table A-1 – Weather Data and Survey Dates/Times

Survey Location Reference	Survey Date/Type (Dusk/Dawn)	Survey Start/End Time	Sunset/Sunrise Time	Surveyor Positions	Temperature (Start/End) (°C)	Wind (start/end) (Beaufort)	Rain (start/end) (1-4*)	Cloud Cover (start/end) (Oktas)
B4A	20 August 2020 (Dusk)	20:13 – 21:58	20:28	5	18/18	1/0	0/0	3/6
B84A	21 August 2020 (Dawn)	04:20 - 06:06	05:51	3	15/15	1/3	0/0	8/7
B104A	19 August 2020 (Dusk)	20:15 - 22:00	20:30	5	17/17	2/3	1/2	8/8
B106A	20 August 2020 (Dawn)	04:40 - 06:06	05:51	5	17/14	2/0	0/0	8/2
B109A	21 August 2020 (Dawn)	04:10 - 06:08	05:53	2	16/14	2/3	1/0	7/8
T36A	14 July 2020 (Dusk)	21:24 - 23:09	21:39	2	14/13	2/2	0/0	7/8
T45A	15 July 2020 (Dawn)	03:17 – 05:02	04:47	2	12/12	0/2	0/0	8/4
T112A	15 July 2020 (Dusk)	21:23 – 23:08	21:38	2	15/14	3/3	0/0	3/7
T128A	16 July 2020 (Dawn)	03:18 – 05:03	04:48	2	13/13	2/1	0/0	8/7
T147A	7 August 2020 (Dawn)	03:55 – 05:40	05:25	2	17/17	1/1	0/0	8/8
T148A	21 July 2020 (Dusk)	21:14 – 22:59	21:29	2	17/14	0/0	0/0	8/8
T152A	5 August 2020 (Dusk)	20:46 - 22:31	21:01	2	19/17	3/2	0/0	8/7
T156A	6 August 2020 (Dawn)	03:55 – 05:40	05:25	2	13/13	2/1	0/0	8/8
T201A	22 July 2020 (Dawn)	03:21 – 05:11	04:56	2	11/11	0/0	0/0	8/8
T203A	6 August 2020 (Dusk)	20:44 - 22:29	20:59	2	19/18	2/2	0/0	7/8
T206A	7 July 2020 (Dusk)	21:38 – 23:08	21:28	2	12/11	0/0	1/0	7/6
T207A	22 July 2020 (Dusk)	21:13 – 22:58	21:28	2	15/15	2/2	0/0	8/8
T208A	23 July 2020 (Dawn)	03:29 - 05:00	04:59	2	13/13	2/2	0/1	8/8
T210A	25 August 2020 (Dusk)	20:01 - 21:46	20:16	2	15/14	1/2	1/0	8/8
T211A	8 July 2020 (Dawn)	02:38 - 04:53	04:38	2	11/12	0/0	0/0	7/8
T212A	8 July 2020 (Dusk)	21:30 - 23:15	21:45	2	12/11	0/0	0/1	8/8
T213A	9 July 2020 (Dawn)	02:40 - 04:55	04:40	2	11/11	0/0	0/0	8/5

![](_page_33_Picture_4.jpeg)

Survey Location Reference	Survey Date/Type (Dusk/Dawn)	Survey Start/End Time	Sunset/Sunrise Time	Surveyor Positions	Temperature (Start/End) (°C)	Wind (start/end) (Beaufort)	Rain (start/end) (1-4*)	Cloud Cover (start/end) (Oktas)
T216A	26 August 2020 (Dusk)	19:58 – 21:43	20:13	1	12/11	1/1	0/0	8/8
T217A	26 August 2020 (Dusk)	19:58 – 21:43	20:13	1	12/11	1/1	0/0	8/8

![](_page_34_Picture_3.jpeg)

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or call 0300 470 4580\*.