Environmental Statement Chapter 10 Addendum

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SUBJECT:	Environmental Statement Addendum – Chapter 10 Biodiversity		
PROJECT:	Tytherington Quarry 6mt Additional Reserves	**AUTHOR:**	Drew Wilson
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INTRODUCTION

Heidelberg Materials[1] plan to secure the continued extraction of all consented limestone reserves, and extraction of further unconsented reserves, within the existing footprint of Tytherington Quarry, near Thornbury, Bristol. To achieve this, Heidelberg Materials is seeking planning permission to change the existing working method at Tytherington Quarry to allow for the deepening of the Woodleaze area of the quarry to release an additional 3 million tonnes as well as enable the extraction of a further 3 million tonnes from the southern part of the quarry, beneath the existing soil store area. This winning of these additional 6 million tonne (6mt) mineral reserves at Tytherington Quarry is hereafter referred to as the 'Proposed Scheme'. Two planning applications have been made to South Gloucestershire Council (SGC) under Section 73 of the Town and Country Planning Act 1990 (as amended). The two Section 73 planning applications were accompanied by a single overarching Environmental Impact Assessment (EIA), the results of which are reported in an Environmental Statement (ES) (WSP, 2024).

EIA is required for certain developments under *The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (SI 2017 No. 571)* (hereinafter referred to as the EIA Regulations).

This ES Addendum has been prepared for the purpose of meeting those requirements of the EIA Regulations that pertain to ESs. The ES Addendum provides part of the information that will be used by South Gloucestershire Council and others to inform the process of determining the planning applications. The description of the Proposed Scheme and the areas that it will impact within the soil storage area of Tytherington Quarry (hereafter referred to as the 'Site') are consistent with those reported in the original ES (WSP, 2024).

This ES Addendum revisits the biodiversity chapter of the original ES (Chapter 10) that accompanied the application references: P24/01355/RVC and P24/01356/RVC. It provides an updated assessment in respect of hazel dormouse *Muscardinus avellanarius* and bats following changes to the baseline that have occurred since the ES was submitted. The approach and methodology that has been adopted in preparing the ES Addendum is unchanged from that provided in the original ES Chapter 4 and Sections 10.7 and 10.8 of ES Chapter 10.

This ES Addendum only provides additional details and technical re-assessment for the biodiversity topic and all details relating to other topics remain the same as those provided in the original ES.

[1] Formerly known as Hanson UK

ES CHAPTER 10: BIODIVERSITY ADDENDUM

10.1 Introduction

This chapter uses the section numbers from the biodiversity assessment in the original ES and presents an updated assessment in respect of dormouse and bats following changes to the baseline that have occurred since the ES was submitted. Baseline information and associated assessments for other receptors previously considered are unchanged.

The additional ecological information which is relevant to the assessment includes the following:

- Between September 2023 and August 2024, three surveys were completed for the ash tree which was previously precautionarily assessed as being a maternity roost. These surveys were completed in response to a Health & Safety (H&S) concern that the retained ash tree could become damaged in winter stormy weather. In April 2024 the ash tree was damaged in a storm resulting in the closure of the soil store and the cessation of any quarry operations in that area. The surveys concluded that there was no current or previous use of the ash tree by roosting bats. The tree was then felled so that quarry operations could resume. The outcomes of these surveys are detailed in **Appendix 10D: Tytherington Quarry 6mt Additional Reserves – Bat technical note**.
- In June 2024 dormice surveys on a hedgerow in the land adjacent to Tytherington Quarry resulted in a summer nest being identified 280m west of the Site.

This ES addendum uses the additional ecological information above to update the assessment presented in the original ES Chapter 10 Biodiversity (WSP, 2024) in respect of the two receptors. The following additional appendices are also provided:

- **Appendix 10D**: Tytherington Quarry 6mt Additional Reserves – Bat technical note; and
- **Appendix 10E**: Tytherington Quarry 6mt Additional Reserves – Ecological Method Statement.

Based on this, this ES addendum does not revisit the following sections from the original ES Chapter 10 Biodiversity as these are all considered to remain valid for this updated assessment:

- 10.2 Policy and Legislative Context
- 10.5 Consultation
- 10.8 Assessment Methodology
- 10.10 Assessment of Cumulative Effects
- 10.12 Mitigation and Enhancement Measures
- 10.13 Conclusion of Significance Evaluation

Where sub-sections are re-visited within this ES addendum all details are consistent with the original ES Chapter 10 Biodiversity details unless otherwise stated.

LIMITATIONS AND ASSUMPTIONS

The following limitation is no longer relevant to the assessment:

- A decaying ash tree was precautionarily assumed as being suitable to support roosting bats in the original ES. The restoration strategy for the Proposed Scheme was designed to include the retention of the ash tree and the section of the hedgerow within which it is located. It was recognised that the advanced decay of the ash tree could result in limb and trunk damage from inclement winter weather that could pose a H&S risk to those accessing the Site. In response to this, Heidelberg Materials commissioned WSP to complete three surveys of the ash tree to understand the value of the tree for bats in the eventuality that felling was required due to H&S concerns. Furthermore, it was recognised that confirming the roost status of the ash tree prior to the 2023/2024 winter would be valuable should the ash tree become damaged by winter weather. As such, WSP were commissioned to complete one emergence survey in September 2023 in an attempt to confirm presence ahead of winter. This survey would then be followed by two aerial inspection surveys in the maternity season of 2024. In April 2024

storm Kathleen and storm Pierrick impacted the southwest of England resulting in strong winds and wet weather. During April the ash tree dropped one of its main limbs and part of remnant crown resulting in the closure of access to the Site due to H&S concerns. This tree has now been fully surveyed and felled in response to H&S concerns raised by storm damage to the tree.

There are therefore no limitations to the assessment.

10.3 Data Gathering Methodology

DESK STUDY

In addition to the desk study sources included within the original ES, it is appropriate to include protected species data from surveys being conducted by Heidelberg Materials in their land holdings near to the Site; surveys which were undertaken after the submission of the two planning applications and original ES. Hazel dormice have now been assumed as present on Site due to a summer nest being identified 280m west of the Site. This survey result is considered to act as a desk study record for protected and notable species within 2km of the Site and hazel dormice is therefore considered within the baseline assessment.

SURVEY WORK

Three surveys were completed for the decaying ash tree which was previously precautionarily assumed to provide a maternity roost for bats. The aim of these surveys was to confirm the presence or likely absence of roosting bats within the ash tree by following best practice for surveys (Collins, 2023). The surveys for the ash tree included:

- A single dusk bat emergence survey completed on 26th September 2023. The survey was completed under appropriate weather conditions and followed the best practice methodology for timing and duration.
- Two aerial inspections of the ash tree and its potential roosting features (PRFs) were completed with one on 29th May 2024 and the other on 27th August 2024. The inspections were completed using a mobile elevated work platform for access and a torch and endoscope for investigating PRFs. The inspection was completed by a licensed bat ecologist who has approximately 6 years of bat survey experience. These surveys followed the best practice methodology.

10.4 Overall Baseline

CURRENT BASELINE

Protected and Notable Species

Bats

During the data collection period for the PEA and ES a single decaying ash tree with multiple PRFs and partially hollow primary limbs was present. This tree had to be felled in August 2024 due to H&S concerns. Prior to felling the tree was surveyed following best practice survey guidelines and roosting bats were concluded to be absent from the tree (see additional ES Appendix 10D). The ash tree is therefore no longer relevant to this assessment.

Hazel dormouse

The hedgerow habitats consist of mature oak and ash trees with lower level hedging of hawthorn and blackthorn. The plantation woodland consists of semi-mature ash, hazel, blackthorn and hawthorn with some rare mature oak, ash and cherry trees. These habitats provide sub-optimal habitat for dormice because they lack a diverse array of fruiting and seeding shrub layer plants which are necessary to sustain

foraging dormice throughout the active season (English Nature, 2006). The habitats on Site are surrounded to the north-west and north-east by the quarry, more plantation woodland to the south-east and south, Itchington Road to the south-west which is an approximately 3m wide road with a 1-2m wide verge on either side, and an arable field to the south-east which is surrounded by a gappy hedgerow that borders Itchington Road and extends towards the M5. The habitats on Site are therefore considered to be somewhat isolated and have a low degree of connectivity with the wider landscape. These observations notwithstanding, a hazel dormouse summer nest has been identified 280m west of the Site. Two hundred and eighty metres is within the published territory range for dormice in hedgerows (300m) and is therefore sufficiently close that presence on Site is likely, and therefore assumed.

Summary

It is concluded that the Site could provide habitat for commuting bats, dormouse, badger, and potentially small numbers of reptiles and priority species such as European hedgehog and European hare. The habitats on Site are considered unlikely to support any other protected or notable species beyond those listed here.

PREDICTED FUTURE BASLINE

The removal of the ash tree means that the predicted future baseline for roosting bats is no longer relevant.

The expected expansion of hedgerows and their development into scrub with trees is likely to marginally increase the availability of suitable habitat for hazel dormouse over the next 10 years. The plantation woodland is unlikely to change in suitability for hazel dormouse given the management, age structure and limited diversity of plant species present. It is therefore expected that there may be a small increase in the extent of suitable habitat, but that this increase will not change the number of territories within the Site, or their quality given the plant species present. The Site is therefore unlikely to change in its suitability to support protected and notable species in the next 10 years.

10.6 Environmental measures incorporated into the Proposed Scheme

Environmental measures embedded into the development proposals which are relevant for biodiversity were provided in Table 10-5 of the original ES.

The avoidance of impacts on the previously retained ash tree and its influence on the assessment can be disregarded as the tree has been removed.

Table 10-5a details an additional embedded measure for protecting hazel dormouse now that they are assumed to be present on Site.

Table 0-1a – Summary of the embedded environmental measures and how they influence the biodiversity assessment

Receptor	Change and effects	Embedded measure and influence on assessment
Hazel dormouse within hedgerows and plantation woodland.	Minimise likelihood of having an impact on hazel dormouse.	The proposed mitigation approach for dormouse presence is detailed in an Ecological Method Statement (EMS) which includes pre-works checks ahead of vegetation clearance as well as detailing the methods and timings for vegetation clearance (additional ES Appendix 10E). The Landscape and Biodiversity Enhancement Plan (LBEP) (ES Appendix 10B) provides details on compensation habitats which will mitigate for the loss of hedgerow and plantation woodland habitat. Collectively, the measures proposed will minimise the risk of causing a legal offence for hazel dormouse and maintain the value of the Site for this species.

10.7 Scope of the assessment

POTENTIAL RECEPTORS

The additional ecological information that informs this re-assessment has resulted in roosting bats being removed from the list of potential receptors and hazel dormice being added. **Tabel 10-8a** provides the additional details for hazel dormice that need to be considered in this assessment.

Table 0-8a – Potential sensitive receptors

Biodiversity receptor	Geographic context of Importance	Summary	Approximate location
Hazel dormouse	Local	There are three hedgerows with trees located within the Site and an area of plantation woodland that could be used by hazel dormouse. These habitats are however considered sub-optimal for dormouse due to their age, management and floristic diversity. Despite this, the presence of a hazel dormouse summer nest 280m west of the Site, within the published territory range for dormouse in hedgerows, is therefore sufficiently close that presence on Site is likely and therefore is assumed.	Single hedgerow along the west to northwest boundary. Double hedgerow along the northern boundary. Plantation woodland to the east of the Site separating the soil store from the M5.

Biodiversity receptor	Geographic context of Importance	Summary	Approximate location
		The habitats which will be impacted by the Proposed Scheme include approximately 225m of hedgerow and 0.75ha of plantation woodland. These losses would be expected to represent less than two dormice territories consisting of sub-optimal habitat that is somewhat isolated from high quality habitat in the wider landscape (Nature England, 2006). The Site is therefore considered of Local value because the sub-optimal habitats on Site are likely to support numbers of animals which are lower than those expected to be of County importance in South Gloucestershire. Nonetheless, hazel dormouse are a European Protected Species (EPS) and are therefore deemed to be important and are included as a potential receptor.	

POTENTIALLY SIGNIFICANT EFFECTS

Effects scoped-in to the assessment

The ash tree which was precautionarily assumed as supporting roosting bats in the original ES has been removed as a potential receptor in that the tree has been surveyed and felled due to H&S concerns.

The additional ecological information that informs this re-assessment has resulted in hazel dormouse being scoped into the assessment due to their status as an EPS.

10.9 Assessment of effects

HAZEL DORMOUSE

There are three hedgerows with trees and an area of plantation woodland which could support hazel dormouse but are considered sub-optimal. The desk study data identified a summer nest 280m west of the Site and it is therefore assumed that hazel dormice are present on Site. Despite hazel dormouse being important because they are an EPS, the Site is of local value because of the sub-optimal habitat condition and because these habitats are common in the wider landscape.

The extent of the plantation woodland and hedgerows on Site which are going to be impacted from construction are likely to support less than two breeding dormice territories. Furthermore, the methods of hedgerow translocation and vegetation clearance employed on Site will involve pre-works checks for dormice to ensure no individual dormice (or their nests) are impacted. These pre-works checks combined with habitat mitigation detailed under the LBEP (ES Appendix 10B) will minimise the risk to this EPS and maintain the local population. It is therefore concluded that there will be a negligible effect significance on this receptor from construction.

It is expected that hedgerows created under the LBEP (ES Appendix 10B) will become established and provide suitable habitat for hazel dormice within 3-5 years following planting. This new hedgerow habitat is likely to have a very small positive effect on hazel dormice but will not markedly impact the conservation status of the species. As part of the final stage of restoration of habitats a new plantation woodland will be planted as detailed in the LBEP. The existing woodland has reached its current state in 16 years, and it is expected that the new plantation woodland would reach a similar state in a similar time frame and include species more suitable for hazel dormice. This new plantation woodland habitat is likely to have a very small positive effect on hazel dormice but will not meaningfully impact the conservation status of the species. Finally, throughout operation the impacts from noise, light, dust and site traffic will be consistent with the existing levels of disturbance. Collectively, it can be concluded that there will be negligible effect significance on this receptor from operation.

It is therefore concluded that there will be a negligible effect on this sensitive receptor from construction or operation and therefore no likely significant effect.

10.11 Assessment of In-combination Climate Impacts

There are no significant effects to consider for in-combination climate impacts.

10.14 Implementation of environmental measures

The removal of the ash tree means that the retention of it under the original ES environmental measures should now be disregarded. **Table 10-12a** describes the additional environmental measures embedded within the Proposed Scheme and the means by which they will be implemented, i.e. they will have been secured through the planning conditions.

Table 0-12a - Implementation of environmental measures

Environmental measure / mitigation	Responsibility for implementation	Compliance mechanism	ES section reference
The proposed mitigation approach for dormouse presence is detailed in the EMS (additional ES Appendix 10E) which includes pre-works checks ahead of vegetation clearance as well as detailing the methods and timings for vegetation clearance. The LBEP (ES Appendix 10B) provides details on compensation habitats which will mitigate for potential supporting habitat.	Heidelberg Materials	Not applicable.	ES Addendum: Section 10.6.1 Table 10-5a

10.15 References

- English Nature (2006). The Dormouse Conservation Handbook.