Heidelberg Materials

TYTHERINGTON QUARRY: 6MT ADDITIONAL RESERVES

Ecological Method Statement

62282762-ECO-EMS-0001
November 2024

Confidential

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1 INTRODUCTION

1.1 Background

1.1.1. Heidelberg Materials 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 (hereafter referred to as the 'Proposed Scheme'). 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 storage area. In addition to mineral extraction, there will be reprofiling of the existing soil storage bund and a phased restoration strategy which will include replanting as detailed in the submitted Landscape and Biodiversity Enhancement Plan (LBEP) (ES Appendix 10B).

1.1.2. WSP UK Ltd. (WSP) was commissioned by Heidelberg Materials to produce an Ecological Method Statement (EMS) for protected and notable species and habitats which could be impacted by revised working method at Tytherington Quarry. This EMS has been prepared to accompany the ecological impact assessment presented in the Environmental Statement (ES) for the Proposed Scheme at the request of the County Ecologist.

The Proposals

1.1.3. The soil storage area is located 2 miles south-east of Thornbury, Gloucestershire and is centred at Ordnance Survey (OS) Grid Reference ST 65685 88066 (hereafter referred to as the 'Site'). The Site is approximately 3.7 hectares (ha) in extent and primarily comprises neutral grassland, deciduous woodland, hedgerows and scrub (**Appendix A Figure 1**). To the north of the Site is the existing Woodleaze excavation area of Tytherington Quarry, to the east are arable fields beyond the M5 motorway, to the south are Itchington Road and arable fields, and to the west are grasslands and arable fields.

1.1.4. The Proposed Scheme will require clearance of grassland, woodland, hedgerow and scrub vegetation to allow for reprofiling of the soil storage bunds and translocation of hedgerows (hereafter referred to as the 'Proposed Works').

1.1.5. All access and parking for the Site will utilise existing quarry access tracks.

1.1.6. Any vegetation clearance and hedgerow translocation will be completed in daylight hours.

1.2 Purpose of this Ecological Method Statement

1.2.1. The purpose of this EMS is to define the ecological risks of the Proposed Works with reference to the following relevant nature conservation legislation and policy.

- The Conservation of Habitats and Species Regulations 2017 (as amended) (Habitats Regulations);
- The Wildlife and Countryside Act (WCA) 1981 (as amended);
- The Protection of Badgers Act 1992;
- The Natural Environment and Rural Communities (NERC) Act 2006 (England); and
- The Wild Mammals (Protection) Act 1996.

1.2.2. Further details of this legislation and policy are provided in **Appendix B**.

1.2.3. This EMS will cover the methods for vegetation clearance and hedgerow translocations as well as recommendation for amendment to the current lighting strategy to protect flightlines for commuting bats.

1.2.4. A mitigation strategy that supports compliance with the legislation listed above, has been outlined within this EMS. It is the responsibility of the developer (Heidelberg Materials) and any sub-contractors to carry out the works in a manner which will minimise the risk of contravening the legislation and with due care to any other wildlife on Site.

1.2.5. Any variations from the EMS may increase the risk of contravening legislation and therefore risk prosecution. Thus, it is the joint responsibility of all project team members that no changes to the timings or methods outlined below, nor the extent and location of Proposed Works areas on Site, are made without prior agreement from a suitably qualified ecologist.

2 Ecological Constraints

2.1.1. The Site supports one protected habitat and potentially supports several protected and notable species which will require a mitigation method statement to allow the works to proceed lawfully. It should be considered that the protected and notable species could be found within the woodland, hedgerow, scrub, and grassland across the Site.

2.2 Species Rich Native Hedgerows with trees

2.2.1. A hedgerow is defined as any boundary line of trees or shrubs over 20m long and less than 5m wide, and where any gaps between the trees or shrub species are less that 20m wide (Bickmore, 2002). All hedgerows consisting predominantly (i.e. 80% or more cover) of at least one woody UK native species are covered by this habitat of principal importance.

2.2.2. The boundary between the quarry and the east and north of the Site is formed from mature pedunculate oak *Quercus robur* and ash *Fraxinus excelsior* trees with lower level hedging of hawthorn *Crataegus monogyna* and blackthorn *Prunus spinosa*.

2.2.3. These hedgerows meet the habitat of principal importance criteria and are therefore protected under the NERC Act (HMSO, 2006). Public bodies must conserve and enhance the biodiversity value of these habitats and landowners should have a plan in place for managing these habitats as part of their biodiversity strategy.

2.2.4. The submitted LBEP provides details on the creation of new hedgerow habitats on Site to partially meet this requirement. This EMS provides details on the translocation of existing hedgerows. These translocations will supplement hedgerow creation to exceed the requirement of maintaining the length of hedgerows present on the Heidelberg Materials land holdings on and adjacent to Tytherington Quarry.

2.3 Commuting and Foraging Bats

2.3.1. All species of UK bats are European Protected Species (EPS) meaning that the animals, their breeding sites and resting places are protected under the Habitats Regulations (HMSO, 2017) and the WCA (HMSO, 1981).

2.3.2. Habitats which are important for commuting and foraging bats are not protected. They are however an important element of the landscapes that bats are present in and will therefore contribute to the conservation status of bat populations. Commuting routes for bats often include flightlines along dark corridors which are sheltered from prevailing weather and light pollution. These flightlines connect roost locations with foraging resources.

2.3.3. The woodland edge and hedgerow habitats along the quarry access tracks provide dark flightlines for bats commuting north to south across the Site. The woodland edge through the Site is currently shaded by the hedgerows to its north and northwest. The reprofiled soil bund will be approximately 5m higher than the current plantation woodland ground level and should therefore provide shading across the majority of the flightline. Nonetheless, the removal of the hedgerows and reprofiling of the soil store bund has the potential to create a gap in screening from the permanent lighting, resulting in the illumination of the habitat at the eastern end of the Site between the retained double hedgerow and the slope of the new bund. This could then be a temporary barrier to commuting bats whilst the new hedgerow establishes. This EMS provides details on the measures that will be taken

to maintain this flightline between removal of the existing hedges and establishment of newly created hedges 3-10 years after planting.

2.4 Hazel Dormouse *Muscardinus avellanarius*

2.4.1. Hazel dormice are a European Protected Species (EPS) and, as such, the animals, their breeding sites, and places used for nesting and rest are safeguarded under the Habitats Regulations (HMSO, 2017). It is also an offence under the WCA (HMSO, 1981) to disturb hazel dormice or to obstruct access to their places of rest or shelter. It is illegal to deliberately capture, injure, or kill hazel dormice, and to disturb them intentionally or recklessly. Furthermore, it is against the law to damage, destroy, or intentionally or recklessly obstruct access to a breeding or resting place used by them.

2.4.2. The hazel dormouse is a small mammal that can be found in woodland, scrub and hedgerows across the UK. They can measure up to 70-90 mm in length, excluding the tail, and weigh around 15-30 grams. They have golden-brown fur and large black eyes. Hazel dormice are primarily arboreal, spending most of their time in trees. During spring and summer, they construct a summer nest off the ground, within scrub and woodland. During autumn and winter, they construct a hibernation nest on the ground close to woodland and scrub.

Photograph 1 - Hazel dormouse
(photo taken from ptes.org)

Photograph 2 – Hazel dormouse summer nest in blackthorn
(photo taken from Robert Walton, Devon hedges and wildlife)

2.4.3. The hedgerows and plantation woodland within the Site are considered 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). However, presence has been assumed because a summer nest was identified 280m west of the Site in a hedgerow which was surveyed in June 2024.

2.4.4. This EMS provides details on pre-works checks and vegetation clearance methods that will be required to ensure that dormice and their nests are protected from direct impacts or disturbance.

2.5 Badgers *Meles meles*

2.5.1. Badgers are a moderate sized terrestrial mammal that live in family groups and excavate subterranean setts in various habitat types. They maintain territories which often have setts at

multiple locations to allow access to resources that badgers require at different times of the year. As a result, they can move into and out of an area with little warning and begin excavating a sett. Badger sett entrances tend to be semi-circular in shape, whereas rabbit warren entrances tend to be much smaller and more oval in shape. Badgers are habitual and use the same pathways to access foraging habitats and will try to do so despite new obstacles, such as new fences and roads. Woodlands, hedgerows, scrub, and vegetated mounds of friable soil provide ideal habitat for setts.

2.5.2. Badgers and their setts are protected under the Protection of Badgers Act (1992). As such, it is an offence to wilfully take, kill, injure or ill-treat a badger, or possess a dead badger or any part of a badger. Under the Act their setts are also protected against obstruction, destruction, or damage in any part.

2.5.3. The Site was considered to offer suitable habitat for badger as there are woodland banks and hedgerows growing on friable soil. No badgers or signs of badgers were identified during the PEA (WSP, 2023) survey or incidentally observed during bat surveys; however, badgers are a mobile species and could move into the Site at any time. This EMS provides details on pre-works checks that will be required to confirm that no setts have been excavated on Site and that no badger activity is present.

2.6 Nesting birds

2.6.1. All nesting birds are protected under the WCA (HMSO, 1981). It is an offence to intentionally kill, injure, or take any wild bird, or take or destroy an egg of any wild bird. It is also an offence to damage or destroy the nest of any wild bird (whilst being built, or in use). In addition, it is an offence to intentionally or recklessly disturb any wild bird listed on Schedule 1 of the WCA while they are nest building, or at a nest containing eggs or young.

2.6.2. The typical bird nesting season extends from March to August inclusive for most species, however some species breed all year round. The Proposed Works could occur within the main bird nesting season, increasing the risk of encountering active nests during vegetation clearance. The Site may also be used year-round by nesting birds such as pigeons *Columba sp*.

2.6.3. The woodland, grassland and hedgerows all provide suitable nesting habitat for birds. This EMS provides details on pre-works checks that will be required to confirm that no birds are nesting in vegetation which requires clearance.

2.7 Reptiles

2.7.1. There are four relatively common and widespread UK reptile species; slow worm *Anguis fragilis*, grass snake *Natrix natrix*, adder *Vipera berus*, and common lizard *Zootoca vivipara.* The Site could potentially support slow worm, grass snake and common lizard. They vary in size and colouration depending on species. Individual animals may be seen during works in grassland, hedgerows, scrub, woodland edges, under rocks, dead wood and even stored materials. It should be assumed that any of these features could provide terrestrial features for reptiles.

Photograph 3 – Female slow worm
(Photo taken from: woodlandtrust.org)

Photograph 4 – Grass snake
(Photo taken from: wildlifetrust.org)

Photograph 5 – Common lizard
(Photo take from: norfolkwildlifetrust.org.uk)

2.7.2. Common and widespread reptiles are partially protected under Schedule 5 of the WCA (HMSO, 1981). It is an offence to intentionally or recklessly kill or injure, possess, sell or trade common reptile species.

2.7.3. During the active period, common reptiles may be found basking in open areas or under rocks/dead wood and even stored materials. They hibernate over the winter months, entering a dormant state in refuges such as small mammal burrows, dense vegetation, hedgerow and scrub rootstock, rock/stone/rubble and other suitable materials. Their hibernation period generally occurs between October/November and March/April with the exact dates dependent on the prevailing weather conditions.

2.7.4. The areas of woodland edge, hedgerow, grassland and scattered scrub within the Site had the potential to support reptile species. This EMS provides details on the sensitive vegetation clearance methods which will be implemented to conserve any reptiles within the Site.

2.8 Species of Principal Importance – Mammals

2.8.1. Public bodies must seek to conserve the population status of these species of principal importance and landowners should have a plan in place for managing potential impacts to these species habitats as part of their working methods.

2.8.2. The habitats on Site could support European hedgehog *Erinaceus europaeus* and European hare *Lepus europaeus* which are both mammals of principal importance under the NERC Act (HMSO, 2006).

2.8.3. The submitted LBEP provides details on the creation of new grassland, hedgerow and woodland habitats which should enhance the Site for these species. This EMS provides details on the sensitive vegetation clearance methods which will be implemented to conserve any animals within the Site.

2.9 Invasive Non-Native Plant Species

2.9.1. No invasive non-native plant species (INNPS) listed under Schedule 9 of the WCA (1981) were identified on Site during the PEA.

2.9.2. Nonetheless, INNPS are commonly dispersed along railway sidings and then into surrounding habitats by the movement of machinery and people. The Site therefore has a low risk of INNPS being introduced from operations occurring across the quarry and at the soil storage area. This EMS will provide details on pre-works checks that will be required to confirm that no INNPS are present within vegetation which requires clearance.

3 Method Statement

3.1 Toolbox Talk

3.1.1. All site operatives who will be responsible for vegetation clearance should be briefed on the contents of this EMS via a Toolbox Talk (TBT) presented by an ECoW or suitably qualified ecologist. Site operatives should then sign the site register (**Appendix C**) to confirm receipt. This TBT will identify the ecological constraints relevant to the location (as described in this EMS), outlining the procedures and environmental measures to be followed to avoid breaches of legislation and/or adverse impacts on these species and habitats that could occur within or near to the working area.

3.2 Method Statement

3.2.1. To control the risks to protected habitat and species within the Site the following methods should be followed.

Pre-works Checks

3.2.2. The Site could support hazel dormice, badgers, nesting birds, and INNPS. The absence of these species from Proposed Works areas should be confirmed by a pre-works check.

3.2.3. For badgers, it will be appropriate for an ECoW (or suitably experienced ecologist) to complete a site walkover in the two months prior to any vegetation clearance or ground works to identify any badger setts or changes in badger activity. There are no seasonal constraints on when badger setts can be identified. If a badger sett is discovered within the Site, depending on the timing. no works should commence within 30m, or if already ongoing all works within 30m will have to stop. It will then be necessary to seek further ecological advice on whether a Natural England (NE) licence for sett closure is required.

3.2.4. For hazel dormice, the pre-works check should include a fingertip search of any suitable habitats by a suitably qualified ecologist. This should occur within the 48 hours prior to any vegetation clearance for hedgerow translocation or woodland and scrub vegetation clearance. If any dormouse nests are identified during the checking, works will stop immediately and not recommence until further specialist advice has been sought and, if required, an EPS mitigation licence for dormice has been applied for and granted by NE. If dormice are absent, the methods under the hedgerow translocation and vegetation clearance sections can be followed.

3.2.5. For nesting birds, the pre-works check should include a close inspection of all suitable nesting habitats within the 48 hours prior to hedgerow translocation or vegetation clearance. If an active bird’s nest is found, a suitable buffer will need to be erected surrounding the nest and retained until the nesting attempt has ended. The size of this buffer will be determined by the ECoW based on the species which is identified using the nest with typical buffers having a 5-10m radius around the nest. The hedgerow translocation or vegetation clearance cannot progress inside the buffer until the nesting attempt has ended. It will therefore be necessary for the ECoW to mark on a map with locations of active nests and then perform fortnightly checks to confirm the activity status of the nest. Once the nesting attempt has ended the habitats within the buffer area can be checked and cleared if there are no nesting birds present.

3.2.6. For INNPS, the pre-works checks should be completed within the 48 hours prior to hedgerow translocation or vegetation clearance. If INNPS are identified, it will be necessary for a INNPS management strategy to be created to document how the invasive plants will be managed on site and/or disposed of.

3.2.7. Areas may only have their vegetation cleared for hedgerow translocation or general site clearance once the ECoW has consented that the area is free protected and notable species and that there is no risk of a legal offence.

Hedgerow Translocation

3.2.8. Hedgerow translocation will be completed so that the total length of hedgerows present on the Heidelberg Materials land holdings near Tytherington Quarry are maintained. Approximately 200m of hedgerow habitat will be translocated from the northeast and north boundaries of the Site. These hedgerows will be translocated to the receptor site on the boundaries of the D-shaped field which is between Itchington Road and the M5. The receptor sites for hedgerow translocation include approximately 30m of infilling gaps within the existing Itchington Road hedgerow and the approximately 250m M5 field boundary which could be planted up with the remaining donor hedgerows. The M5 boundary is currently a wooden fence with bramble scrub and ephemeral vegetation growing parallel to it on the M5 soft estate.

3.2.9. Hedgerow translocation can be completed using the following methods which have been adapted from Box and Stanhope (2010) and Hedgerows Ireland (2024). There are five steps to the hedgerow translocation which are described below. In general, it is recommended that hedgerow translocations are completed in autumn/winter when vegetation is dormant and soils are moist but not in periods of freezing temperatures or heavy rainfall. The optimal period would therefore be considered to be September to November, but the correct weather conditions are more important than the autumn/winter month chosen. The methods included here do not cover the retention of the hedgerow standard trees on Site as they are too large to translocate.

Prepare donor hedgerow

3.2.10. Preparation of the donor hedgerow should occur 1 year before translocation and begin with the hedgerow vegetation and habitats at the base of the hedgerow being checked for badger setts, dormouse nests, active bird nests or any INNPS in the 48hrs prior to any cutting. If these species are present, then the advice in the Pre-works Checks section should be followed. If these species are absent, then the method for hedgerow translocation can be followed.

3.2.11. During this pre-works check it is important to identify an appropriate coppice cut height which avoids damage to any thick horizontal stems and hedge cut width which will maintain a large proportion of the most established vertical stems. The hedgerow can then be coppiced to a cut height of typically 10-50cm and a width of typically 1-2m. This coppicing would therefore involve reducing the majority of the hedgerows mass and removing suckers growing along the hedgerow. The width of the coppiced hedge should correspond with the size of the ditching bucket available for extracting the hedgerow root ball.

Prepare receptor trench

3.2.12. Preparation of a receptor trench should be completed immediately prior to the translocation using working lengths of approximately 50m so that trenches are only open for a single day to prevent the receptor soils from drying out. The base of the trench should be approximately 1-1.5m below ground

level and be 1.5-2m wide with shallow tapered sides. The exact depth of receptor trenches should be similar to the root depth at the donor site and can be defined based on the root ball dimensions observed during translocation. The width and depth of the trench should accommodate the root ball and soils from the base of the hedgerow in a way that the base of the hedgerow would be at or slightly below ground level when translocated. The base of the trench should then be scarified to an approximately 25cm depth to allow for new root growth to penetrate receptor soils.

Root ball translocation

3.2.13. In the 48 hours prior to root ball translocation the coppiced hedgerow new growth and habitats at the base of the hedgerow should be checked by an ECoW for badger setts, dormouse nests, active bird nests or any INNPS. Root ball translocation can go ahead provided these species appear to be absent. If these species are present, then the advice in the pre-works checks section should be followed.

3.2.14. The hedgerow can be dug out in sections approximately 1m in length and the operator should aim to collect soils within 30-50cm of the hedgerow cut width on either side of the hedgerow when they excavate the root ball. The excavator should aim for a soil depth of approximately 1m so that the tap root isn't broken off too close to the stems. The exact depth of excavation will need to be determined based on the soil depths and root growth patterns observed during excavation. This excavation of the hedgerow should be completed using a tracked 360^{O} excavator with the largest ditching bucket available that can accommodate the dimensions provided above.

3.2.15. The hedgerow root balls can then be moved to a transport trailer attached to a tractor and then depending on the amount of rain on the day covered with wet coir matting to reduce the risk of them drying out. The translocation will be completed under site supervision so that the hedgerows are introduced at the receptor site in the order they were extracted. It is recommended that soil from the donor site trench is collected to act as back-fill at the receptor site. The amount of back-fill required for each translocation will vary but the amount should be sufficient to fill any space between the root balls and the donor trench sides. This back-fill soil can be collected on Site and moved to the receptor hedgerows bases as a top surface dressing.

3.2.16. Any coir matting that may have been used can be removed immediately before the hedgerow root balls are put into the receptor trench. This movement of hedgerow root balls may require two tracked 360^{O} excavators to handle hedges out of the trailer. It is recommended that approximately 5m of hedgerow root ball planting is completed at a time so that back-fill can be added promptly to avoid root balls drying out. Soil excavated from the donor trench will be used for backfilling gaps and then soil from the receptor hedgerow bases should be used as a final top surface dressing

3.2.17. The backfill can then be trodden down by foot and any air pockets filled by hand. This step should be followed by watering of the plants to fill any voids and further application of final layer of backfill soil from the receptor hedgerows base soil. The soils at the base of the translocated hedgerow can now be graded out to match with the soil level in the field.

3.2.18. The working areas which have been tracked by machinery should then be decompacted to reinstate the surrounding fields to their pre-works condition.

Establishment and management

3.2.19. A 1-2m wide margin should be maintained on the field side of the hedgerows to promote biodiversity. Ground vegetation in this margin can help to maintain soil moisture in dry summer

conditions which will promote establishment in the first 36 months. It is however important to monitor whether the hedgerow is being outcompeted by undesirable ruderal and ephemeral species, grasses or bracken. If competing species become too dense then these competitive plants can be removed with a motorised strimmer in Spring or Autumn.

3.2.20. Watering may be necessary in the spring, summer and autumns of the first 36 months. The translocated hedgerow will be monitored in dry conditions to minimise the risk of translocation failure. The amount of watering required will need to be assessed based on the expected duration of dry weather and soil conditions.

3.2.21. The health of the hedgerow should be monitored for signs of failure (e.g. die back and lack of new growth) for the first 36 months. If sections of hedgerow have not been able to establish in this period, then any gaps should be in-planted with native hedgerow species of local providence. This process and period of monitoring should be repeated until the hedgerows are considered to be fully established in extent.

3.2.22. After translocation the hedgerow can be trimmed on a 3-4 years rotation and rejuvenated with hedge laying if necessary. The details for these steps are not provided in this EMS and are considered standard management consistent with practices employed by Heidelberg Materials across their land holdings or as detailed in Site Biodiversity Action Plan targets.

Vegetation Clearance

3.2.23. Vegetation clearance in addition to hedgerow translocation is required for a section of plantation woodland, and grassland with scattered scrub across the soil storage bunds. These habitats have the potential to support mammal species of principal important as well as common reptile species. These habitats can be cleared using the following methods provided the appropriate pre-works checks have been completed for hazel dormice, badgers, nesting birds, and INNPS.

3.2.24. Heidelberg Materials will employ vegetation clearance contractors to use motorised brush cutters, strimmers and chainsaws to clear vegetation.

3.2.25. The method of vegetation clearance in the plantation woodland will be considerate of any buffers implemented for badgers' setts, hazel dormice and nesting birds as a result of the pre-works checks. At the time of writing, it is expected that clearance in the plantation woodland would include a two-stage cut for any habitats cleared in the dormouse active season (mid-April to late October) or a single stage cut for habitats cleared in their hibernation season (November to mid-April, inclusive). No vegetation clearance will occur during June to mid-September to avoid the time of year when dormice are most vulnerable. Where necessary, clearance will be undertaken in small blocks with the clearance teams clearing small areas to allow for better checking by an ECoW. Clearance should take place in a directional manner, towards retained hedgerows along Itchington Road or the M5 screen plantation woodland. If any dormouse nests are identified during the vegetation clearance, works will stop immediately and be halted until an EPS mitigation licence for dormice has been applied for and granted by NE.

3.2.26. The grassland vegetation clearance is likely to occur after hedgerow translocation has been completed. It is recommended that a sensitive clearance approach is followed to allow for species like slow worm, grass snake, common lizard, European hare and European hedgehog to exit clearance areas. It is recommended that a first cut to approximately 30cm is completed using brush cutters or strimmers and then the following day the habitat can be cleared to ground level. For both

stages of the cut, it is recommended that vegetation is cleared from north to south to promote dispersal into retained habitats.

3.2.27. Some arisings and felled material can be retained in woodland areas to provide habitat for invertebrate species and those which require hibernacula.

3.3 Lighting Strategy Recommendations

3.3.1. A lighting strategy will be developed to minimise the impacts of existing lighting, through lightspill, on the bat flightline. The details are still to be developed but the approach could include installation of a temporary barrier fence to maintain a dark corridor on Site whilst new hedgerows establish. Alternatively, there could be a lighting schedule or the implementation of cowls at the light sources so that shading of the flightline is maintained during the bat active season. Production of a lighting strategy is expected to be a condition of the planning permission and will be developed with input from a suitably experienced ecologist to ensure they are sensitive to commuting bats and maintain an unlit corridor on the Site.

4 References

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- Box, J. and Stanhope, K. (2010). Translocating wildlife habitats: a guide for civil engineers. Proceedings of Institution of Civil Engineers. Civil Engineering 163, pp 123-130.
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- HMSO (Her Majesty's Stationary Office) (1981). Wildlife and Countryside Act (as amended by the Countryside and Rights of Way Act 2000). HMSO, Norwich.
- HMSO (1992). The Badgers Act.
- HMSO (1996). The Wild Mammals (Protection) Act. HMSO, London.
- HMSO (2006). Natural Environment and Rural Communities Act. HMSO, Norwich.
- HMSO (2017). The Conservation of Habitats and Species Regulations 2017 (the Habitats Regulations)
- WSP (2024). Heidelberg Materials. Tytherington Quarry: 6mt Extension. Preliminary Ecological Appraisal.

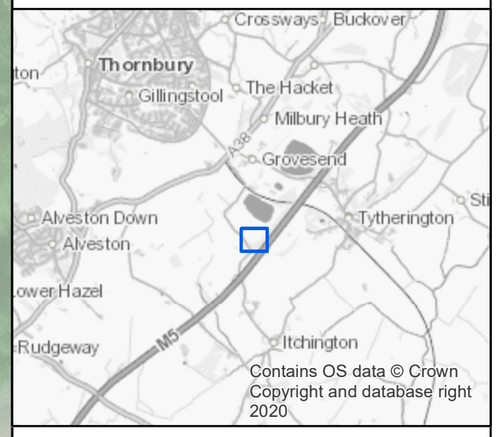
Appendix A

Figures

N

Key

- Site Boundary
- Broadleaved woodland - plantation
- Scrub - scattered
- Neutral grassland - semi-improved
- Standing water
- Intact hedge native species poor
- Hedge and trees native species-rich
- Bat PRF-M Tree
- Indicative Bat Flightline



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Meters

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Client:

HEIDELBERG MATERIALS

Project:

TYTHERINGTON QUARRY
6MT ADDITIONAL
RESERVES

Title

APPENDIX A FIGURE 1:
PHASE 1 HABITAT &
BAT SURVEY RESULTS

Drawing No:	FIGURE 1	Drawn:	DW
Date:	25/10/2024	Checked:	HB
Scale:	1,000 @ A3	Approved:	AB

Appendix B

Relevant Legislation

Legislation and Policy Context

This report has been compiled with reference to relevant wildlife legislation, planning policy and the UK Biodiversity Framework. An overview and context of relevant legislation is provided below.

The Wildlife and Countryside Act 1981, (as amended) (WCA)

Protected birds, animals and plants are listed under Schedules 1, 5, 8 respectively of the WCA. Schedule 9 lists non-native invasive species. A description of these Schedules and their meaning is provided below. Activities that would otherwise constitute an offence under this legislation may be licensed under certain circumstances by Defra or Natural England.

Under the WCA all birds, their nests and eggs (with exception of species listed under Schedule 2) are protected. It is an offence to:

- Intentionally kill, injure, or take any wild bird,
- Take or destroy an egg of any wild bird.
- Damage or destroy the nest of any wild bird (whilst being built, or in use). Under the WCA the clearance of vegetation within the survey area boundary, or immediately adjacent to the survey area during the bird nesting season could result in an offence occurring by the disruption or destruction of nest sites. The bird breeding season can be taken to occur between March - August inclusive, although is subject to variations based on species, geographical and seasonal factors.

Schedule 1

Birds listed under Schedule 1 of the WCA[1] are afforded additional protection with regard to intentional or reckless disturbance whilst nest-building, or at a nest containing eggs or young, or disturb the dependent young of such a bird.

Schedule 5

Species listed in Schedule 5 can either be fully protected or be partially protected under Section 9, which makes it unlawful to intentionally:

- Part 1: kill, injure or take;
- Part 2: possess or control (live or dead animal, part or derivative);
- Part 4 (a): damage or destruct any structure used for shelter or protection;
- Part 4 (b): disturb them in a place of shelter or protection;
- Part 4 (c): obstruct access to place of shelter or protection;
- Part 5 (a): sell, offer for sale, possess or transport for the purpose of sale (live or dead animal, part or derivative);
- Part 5 (b): advertise for buying or selling.

[1] To view the current list of Schedule 1 listed birds, visit: http://www.legislation.gov.uk/ukpga/1981/69/schedule/1

Schedule 8

The Act makes it an offence (subject to exceptions) to pick, uproot, trade in, or possess (for the purposes of trade) any wild plant listed in Schedule 8, and prohibits the unauthorised intentional uprooting of such plants.

Schedule 9

Invasive species listed under Schedule 9 are prohibited from release into the wild and the Act prohibits planting or "causing to grow" in the wild of any plant species listed in Schedule 9. It should be noted that certain bird species listed on Schedule 1 of the WCA are also listed on Schedule 9 to prevent release of non-native and captive individuals, this includes barn owl, red kite, goshawk and corncrake.

Countryside Rights of Way Act 2000 (CRoW Act)

The CRoW Act has amended the WCA in England and Wales, strengthening the protection afforded to Sites of Special Scientific Interest (SSSI) and the legal protection for threatened species, and provides better management arrangements for Areas of Outstanding Natural Beauty (AONBs). It adds the word 'reckless' to the wording of the offences listed under Section 9(4) of the WCA. This alteration makes it an offence to recklessly commit an offence, where previously an offence had to be intentional to result in a breach of legislation.

Natural Environment and Rural Communities (NERC) Act 2006

The Natural Environment and Rural Communities Act (NERC Act) provides that any public body or statutory undertaker in England must have regard to the purpose of conservation of biological diversity in the exercise of their functions. The intention is to help ensure that biodiversity becomes an integral consideration in the development of policies and plans.

The Environment Act 2021 makes changes to the NERC Act which updates the general duty to conserve biodiversity by adding a duty to not only conserve but also enhance biodiversity. Public authorities are also expected to produce reports on the action they have taken under this duty when designated by the Secretary of State. Under Section 40 of this legislation, every public body (including planning authorities) must further the general biodiversity objective, which is described as 'the conservation and enhancement of biodiversity in England through the exercise of functions in relation to England'.

Section 41 of the NERC Act requires the Secretary of State (SoS) to "publish a list of the living organisms and types of habitat which in the Secretary of State's opinion are of principal importance for the purpose of conserving biodiversity". These are referred to as Habitats/Species of Principal Importance. The habitats and species listed in accordance with Section 41 largely replicate those listed on the UK Biodiversity Action Plan (BAP) which occur in England (however there are exceptions).

The Protection of Badgers Act (1992)

It is an offence to wilfully take, kill, injure, possess or ill-treat a badger. Under the Act their setts are protected against intentional or reckless interference. Sett interference includes damaging or destroying a sett, obstructing access to any part of the sett, or disturbance of a badger whilst it is occupying a sett. The Act defines a badger sett as 'any structure or place, which displays signs indicating the current use by a badger' and Natural England (NE) takes this definition to include

seasonally used setts that are not occupied but that show sign of recent use by badgers (Natural England, 2009).

If impacts to badgers or their setts are unavoidable then authorised sett disturbance requires a licence. Activities that would otherwise constitute an offence under this legislation may be licensed by Natural England for certain purposes.

The Wild Mammals (Protection) Act 1996

This Act makes it an offence to use a variety of methods to intentionally cause suffering to a wild mammal. It is an offence to mutilate, kick, beat, nail (or otherwise impale), stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering. It also has exemptions, related to euthanasia.

The UK Post-2010 Biodiversity Framework (2011-2020) (JNCC and DEFRA, 2012)

The UK Post-2010 Biodiversity Framework covers the period from 2011 to 2020 and was developed in response to two main drivers: the Convention on Biological Diversity's Strategic Plan for Biodiversity 2011-2020, and its five strategic goals; and 20 'Aichi Targets'. The Framework lists the UK's most threatened species and habitats and sets out targets and objectives for their management and recovery. The targets set in this framework are still valid, even though the period has now elapsed. The Biodiversity Framework shows how the work of the four UK countries joins up with work at a UK level to achieve the 'Aichi Targets' and the aims of the EU Biodiversity Strategy. It identifies the activities required to complement each country's biodiversity strategy, and where work in the country strategy contributes to international obligations.

The Conservation of Habitats and Species Regulations 2017 (as amended)

The Conservation of Habitats and Species Regulations 2017 (as amended) consolidate the Conservation of Habitats and Species Regulations 2010 with subsequent amendments. The Regulations transpose Council Directive 92/43/EEC, on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive), into national law. They also transpose elements of the EU Wild Birds Directive in England and Wales.

European Protected Species (EPS)

All species listed under Annex IV of the Habitats Directive require strict protection and are known as European Protected Species (EPS). Under Regulation 43 of the Habitats Regulations it is an offence to:

- Deliberately capture, injure or kill any wild animal of an EPS;
- Deliberately disturb wild animals of any such species*;

*In particular any disturbance which is likely to a) impair their ability to survive, breed, reproduce, rear or nurture their young, hibernate or migrate, or b) affect significantly the local distribution or abundance of the species to which they belong.

- Deliberately take or destroy the eggs of such an animal; and
- Damage or destroy a breeding site or resting place of such an animal.

It is also an offence to be in possession of or to control, transport, sell or exchange, or offer for sale or exchange, any live or dead animal or part of an animal of an EPS which has been taken from the wild, or anything derived from such an animal or any part of such an animal.

If the ecologist determines that impacts to an EPS are unavoidable then the works may need to be carried out under a site-specific mitigation licence from Natural England (NE). Activities that would otherwise constitute an offence under this legislation may be licensed by Natural England for certain purposes. Low Impact Class licences are also available for bats and great crested newts, enabling Registered Low Impact Consultants to undertake certain low impact activities reducing the EPS application paperwork and process length. District licencing is also available for great crested newts.

Certain EPS are also listed under Annex II of the Habitats Directive and are afforded protection by the establishment of core areas of habitat known as Special Areas of Conservation. This means these species are a relevant consideration in a Habitats Regulations Assessment (HRA).

The Birds Directive seeks to maintain populations of all wild bird species across their natural range (Article 2). All bird species listed under Annex I[2] of the Birds Directive are rare or vulnerable and afforded protection by the classification of Special Protection Areas (SPAs), these are also designated under all regularly occurring migratory species, with regard to the protection of wetlands of international importance (Article 4). This means these bird species and communities are a relevant consideration in HRA.

[2] To view birds listed under Annex I visit:
http://ec.europa.eu/environment/nature/conservation/wildbirds/threatened/index_en.htm

Appendix C

Toolbox Talk Register

TBT Personnel Register

Name	Date of TBT	Signature

Kings Orchard
1 Queen Street
Bristol
BS2 0HQ

wsp.com