HITHER GREEN GOLF COURSE, HITHER GREEN LANE, REDDITCH

CONSTRUCTION ECOLOGICAL MANAGEMENT PLAN

A Report to: Barratt David Wilson Homes Mercia

Report No: RT-MME-153160-06 Rev B

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MIDDLEMARCH ENVIRONMENTAL

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REPORT VERIFICATION AND DECLARATION OF COMPLIANCE

This study has been undertaken in accordance with British Standard 42020:2013 “Biodiversity, Code of practice for planning and development”.

Report Version	Date	Completed by:	Checked and approved by:
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The information which we have prepared is true, and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management’s Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

DISCLAIMER

The contents of this report are the responsibility of Middlemarch Environmental Ltd. It should be noted that, whilst every effort is made to meet the client’s brief, no site investigation can ensure complete assessment or prediction of the natural environment.

Middlemarch Environmental Ltd accepts no responsibility or liability for any use that is made of this document other than by the client for the purposes for which it was originally commissioned and prepared.

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1. INTRODUCTION

1.1 PROJECT BACKGROUND

In May 2021, Barratt David Wilson Homes Mercia commissioned Middlemarch Environmental Ltd to produce a Construction Ecological Management Plan (CEcMP) in order to control adverse ecological effects associated with a proposed development at Hither Green Golf Course in Redditch.

Middlemarch Environmental Ltd has previously carried out the following surveys for Barratt Homes at this site:

- Preliminary Arboricultural Assessment (Report RT-MME-152753-01);
- Arboricultural Impact Assessment (Report RT-MME-152753-02 Rev D); and,
- Preliminary Ecological Appraisal (Report RT-MME-152753-03 Rev B).

In addition, Middlemarch Environmental Ltd has been commissioned to undertake the following assessments:

- Preliminary Bat Roost Assessment (Report RT-MME-153160-01);
- Badger Survey (Report RT-MME-153160-02);
- Great Crested Newt Habitat Suitability Index Assessment and eDNA Survey (Report RT-MME-153160-03);
- Breeding Bird Survey (Report RT-MME-153160-04);
- Reptile Survey (Report RT-MME-153160-05); and,
- Wintering Bird Survey (Report RT-MME-153160-07).

The overall aim of the CEcMP is to minimise the potential impact of the construction phase of the development on the existing ecology of the site, and ensure works proceed in accordance with current wildlife legislation. It is designed specifically for implementation during the construction phase of the proposed development. This report contains the following information:

- Chapter 2: Ecological Baseline and Risk Assessment of Development
- Chapter 3: General Control of Works
- Chapter 4: Practical Measures to Avoid/Reduce Construction Impacts
- Chapter 5: Drawings.

1.2 SITE DESCRIPTION AND CONTEXT

The site under consideration is an irregularly shaped parcel of land that measures approximately 10 ha in size and is located at Hither Green Golf Course in Redditch, Worcestershire. The site is centred at National Grid Reference SP 0437 6937.

At the time of the survey, the eastern half of the site comprised part of a golf course with areas of plantation woodland. The western section of the site mainly consisted of open unmanaged grassland with hedges, scattered trees and scrub. A large pond was situated towards the northern site boundary and there were four smaller ponds which formed part of the golf course.

The site is bordered to the north by Dagnell End Road and to the east by Hither Green Lane. Residential houses and a continuation of the golf course border the site to the east and fields of grassland, residential dwellings and a public house are present to the north and west. The River Arrow corridor is present to the south of the site with fields of grassland, a cemetery and residential dwellings beyond. The wider landscape to the north, east and west is dominated by agricultural fields and small residential areas. Redditch town centre dominates the landscape to the south.

1.3 DESCRIPTION OF DEVELOPMENT

The proposals for the site involve the construction of up to 214 residential dwellings with associated hard and soft landscaping.

1.4 DOCUMENTATION PROVIDED

The conclusions and recommendations made in this report are based on information provided by the client regarding the scope of the project. Documentation made available by the client is listed in Table 1.1.

Document Name / Drawing Number	Author
Proposed Site Layout, April 2021: ME-24-21 Z	Urban Design
Hither Green - Landscape Masterplan, Drawing HG-42-REV4	SLR Consulting

Table 1.1: Documentation Provided by Client

2. ECOLOGICAL BASELINE AND RISK ASSESSMENT OF DEVELOPMENT

This chapter provides a summary of the existing ecological baseline of the proposed development site, and how this baseline could be impacted upon in the absence of appropriate mitigation and control measures. Legislation relevant to the ecological receptors found on site is summarised in Appendix 1.

2.1 NATURE CONSERVATION SITES

The desk study identified no European statutory sites within 5 km of the survey area, three UK statutory sites within 2 km, three ancient woodland sites within 2 km, and three non-statutory sites within 1 km. The closest site was the River Arrow Local Wildlife Site (LWS) which runs adjacent to the southern boundary of the proposed development site. No works are to be undertaken within 30 m of this watercourse, and therefore no direct impacts are anticipated. However, in the absence of appropriate protection, the proposed development could result in the degradation of this non-statutory site through accidental pollution. As such, measures to avoid this are detailed in Chapter 4.

The other designated sites were located over 450 m away. None of these sites were connected to the survey area, and therefore no adverse direct or indirect impacts are anticipated as a result of the proposed development.

2.2 HABITATS

The Preliminary Ecological Appraisal (Report RT-MME-152753-03 Rev B) identified the following habitats on site:

- Amenity grassland;
- Building;
- Dense scrub;
- Ditches;
- Hardstanding;
- Hedgerows;
- Plantation woodland;
- Scattered trees;
- Semi-improved grassland;
- Semi-natural woodland;
- Standing water; and,
- Tall ruderal vegetation.

These habitats are described below, ordered alphabetically rather than by ecological importance.

Amenity grassland
The eastern section of the site, which formed part of the golf course, was dominated by amenity grassland. Amenity grassland is a common habitat that can easily be replaced, and as such it is not a notable consideration. The Landscape Masterplan shows that the existing amenity grassland will be lost to facilitate the proposed development.

Building
A building was present along the northern boundary of the site. Buildings are typically of very low biodiversity value, and therefore the building was not a notable consideration. The Landscape Masterplan shows that the existing building will be lost to facilitate the proposed development.

Dense scrub
Areas of dense scrub were present along the northern boundary of the site, which contained dumped materials including wall tiles, plastic sheeting, wooden tables and children's toys. Other areas of dense scrub were present within the areas of semi-improved grassland and adjacent to the central hedgerow. Scrub is a common habitat that tends to establish relatively quickly in areas left unmanaged. It is not a notable consideration. The Landscape Masterplan shows that the majority of the existing scrub vegetation will be removed to facilitate the proposed development.

Ditches
Two ditches were present with the site. Ditches are common habitats. They are not a notable consideration on their own, but they do help to provide connectivity across the landscape. The Landscape Masterplan shows that the ditch along the eastern boundary of the site will be retained, but the ditch running through the centre of the site will be lost to facilitate the proposed development. In the absence of appropriate protection, there is potential for the retained ditch to be accidentally impacted (e.g. storage of vehicles and machinery next to the ditches). Measures to protect the retained ditch during the construction works are detailed in Chapter 4.

Hardstanding
Areas of hardstanding were present in the north-eastern section of the survey area. Hardstanding is a common habitat deemed to have negligible ecological value, and it is easy to replace. Therefore, hardstanding is not a notable consideration. The Landscape Masterplan shows that the existing hardstanding will be lost to facilitate the proposed development.

Hedgerows
A hedgerow measuring approximately 700 m in length formed the southwestern (H1), western (H2) and northern (H3) boundaries of the site. Further sections of hedgerow delineated the boundary between the golf course (H4) and the semi-improved grassland and divided the semi-improved grassland in the north-east of the site. All hedgerows within the survey area are classed as Habitats of Principal Importance for Nature Conservation in England, and as such they are notable considerations. The Landscape Masterplan shows that hedgerows H1, H2 and H3 will be retained in their entirety. However, hedgerow H4 and the section of hedgerow in the north-east of the site will be lost to facilitate the proposed development. In the absence of appropriate protection measures, there is the potential for the retained hedgerows to be accidentally impacted by the proposed works (e.g. damage to roots). Measures to protect the retained hedgerows during the construction works are detailed in Chapter 4.

Plantation woodland
Linear strips of plantation woodland (W1) were present towards the eastern boundary of the site, forming part of the golf course. Within the golf course were a series of smaller patches of plantation woodland (W2). The areas of plantation woodland on site are of intrinsic value and cannot be readily replaced. The Landscape Masterplan shows that the majority of the woodland will be retained, with only the area in the centre of the site and a part of a woodland parcel towards the southern end of the eastern boundary being removed to facilitate the proposed development. In the absence of appropriate protection measures, there is the potential for the retained plantation woodland to be accidentally impacted by the proposed works (e.g. accidental incursion and damage to roots). Measures to protect the retained plantation woodland during the construction works are detailed in Chapter 4.

Scattered trees
A number of semi-mature and mature trees were located across the site. Immature trees can be easily replaced, and therefore they are not a notable consideration. However, mature trees have intrinsic value and cannot be readily replaced. The Landscape Masterplan shows the majority of the existing scattered trees will be removed to facilitate the new development. In the absence of appropriate protection and mitigation, there is potential for retained trees to suffer structural damage. Measures to protect retained trees during the construction works are detailed in Chapter 4.

Semi-improved grassland
A field of semi-improved grassland was present in the west of the site. Semi-improved grassland was also present surrounding the pond in the north-east of the site and in the south-eastern corner of the site. Semi-improved grassland is a common habitat deemed to have low ecological value, and it is easy to replace. Therefore, it is not a notable consideration. The Landscape Masterplan shows that the semi-improved grassland will be lost to facilitate the proposed development.

Semi-natural woodland
An area of semi-natural woodland was present along the southern boundary of the site, adjacent to the River Arrow. A small patch of semi-natural woodland was also present in the centre of the site between the golf course and adjacent fields. This woodland can be loosely categorised as Lowland Mixed Deciduous Woodland, which is a Habitat of Principal Importance for Nature Conservation in England. Whilst the woodland is limited in extent it does contribute to the structural and ecological diversity of the site. The Landscape Masterplan shows that the existing semi-natural woodland on site will be retained. In the absence

of appropriate protection measures, there is the potential for the retained semi-natural woodland to be accidentally impacted by the proposed works (e.g. accidental incursion and damage to roots). Measures to protect the retained semi-natural woodland during the construction works are detailed in Chapter 4.

Standing water
A large pond (Pond P1) was located in the north-east of the site and four smaller ponds (Ponds P2 – P5) were located within the area of amenity grassland golf course. The Landscape Masterplan shows that the small ponds on site will be removed to facilitate the proposed development, but pond P1 will be retained. In the absence of appropriate protection and mitigation, there is potential for the retained pond to be impacted by runoff, pollution and dust. Measures to protect the pond during the construction works are detailed in Chapter 4.

Tall ruderal vegetation
An area of tall ruderal vegetation was present in the north-western section of the site. Tall ruderal vegetation is a common habitat that can easily be replaced. Therefore, it is not a notable consideration. The Landscape Masterplan shows that the tall ruderal vegetation will be lost to facilitate the proposed development.

2.3 SPECIES

Based on the existing ecological information available for the site, the following species are considered to be notable considerations with regards to the proposed redevelopment of the site:

Bats
Middlemarch Environmental Ltd has previously carried out a Preliminary Bat Roost Assessment (Report RT-MME-153160-01) at this site in 2021. During the Preliminary Bat Roost Assessment, multiple features were identified around the building located in the north-eastern corner of the site which could potentially be used by bats to gain access into the building and potential roosting locations. A total of fourteen trees on site were also found to possess potential roosting features. Of these, ten trees had high potential to support roosting bats and four trees had low potential to support roosting bats; however, only two trees with high roosting potential (T2 and T13) are being impacted by the proposed development. The building and trees T2 and T13 were subject to dusk emergence and dawn re-entry surveys. No bats emerged from or re-entered any features associated with the site during the surveys, and therefore it was concluded that there are no bat roosts present in the building or trees to be impacted.

The woodland, scattered trees, hedgerows, scrub and open grassland on site, as well as the waterbodies, provide high quality habitat for commuting and foraging bats. There were also good links to alternative roosting, commuting and foraging features in the surrounding area, and therefore it was considered that the habitats on site have high potential to be used by bats. Loss of habitat and any increase/change of illumination on these areas could sever important commuting and foraging routes for bats. Measures to reduce the impact upon foraging bats are detailed in Chapter 4.

Birds
The woodland, scattered trees, hedgerows, scrub and grassland on site, as well as the waterbodies, provide suitable habitat for a range of bird species. There are suitable opportunities present for breeding birds and wintering birds.

A total of 21 confirmed/probable breeding species were identified during the Breeding Bird Survey undertaken at the site in 2021 by Middlemarch Environmental Ltd (see Report RT-MME-153160-04), indicating that the site is likely to be of local value in terms of its breeding bird interest. In the absence of appropriate control measures, the proposed works could result in the breach of wildlife legislation by causing disturbance to birds during the nesting season. Therefore, measures to avoid this are detailed in Chapter 4.

During the wintering bird surveys completed in winter 2021 / 22, a total of 36 bird species were recorded using the habitats on site (see Report RT-MME-153160-07). The report concludes that the site is considered to be of low value to wintering bird species, with a fair variety of bird species recorded, the majority of which are considered to be common, widespread generalist species. The majority of species were recorded in low numbers with many species noted associated with hedgerow and scrub habitats.

Herpetofauna

Amphibians

The unmanaged grassland habitats, woodland, hedgerows and scrub habitat to be removed are suitable for foraging and sheltering amphibians. Four of the onsite ponds are also proposed to be removed to facilitate development of the site. In addition to the five ponds present on site, a further sixteen ponds were identified within a 500 m radius of the site. Of the 21 ponds identified in total, it was not possible to survey two ponds due to restricted access (P13 and P14), one pond no longer existed (P10), and four ponds were dry (P5, P12, P16 and P17). The remaining ponds were subject to a Great Crested Newt *Triturus cristatus* Habitat Suitability Index Assessment and eDNA testing was carried out at all suitable and accessible waterbodies within a 250 m radius of the site in 2021, a total of nine ponds (see Report RT-MME-153160-03). The result of all ponds was negative indicating an absence of great crested newt DNA within the ponds at the time of the survey. It was therefore considered that the development proposals will not impact upon the favourable conservation status of this species. However, there is potential for great crested newt to colonise the ponds on site in the interim between the surveys being completed and the commencement of works. Also, a low number of common toad *Bufo bufo* were recorded during the reptile surveys completed on site (Report RT-MME-153160-05). Measures to reduce the impact upon any amphibians present on site are detailed in Chapter 4.

Reptiles

During the reptile surveys completed by Middlemarch Environmental Ltd at the site in 2021, a low population of grass snake *Natrix natrix* was found with an estimated 0.6 individuals per hectare of suitable habitat on site. The proposed development will result in the permanent loss of suitable habitat for grass snake in the form of unmanaged scrub and grassland and woodland edge habitats as well as the proposed removal of four ponds on site. If unmitigated, the proposed works are likely to result in the killing/injury of grass snakes present in these habitats and could adversely affect the favourable conservation status of the resident reptile populations. However, given the low population size, mobility of the species and the suitability of the surrounding habitats, it was considered that adverse impacts can be avoided through the implementation of reasonable avoidance measures. Measures to reduce the impact upon reptiles present on site are detailed in Chapter 4.

Semi-aquatic mammals

Otters are known to be present along the River Arrow corridor, which is located adjacent to the southern boundary of the site. In the absence of appropriate mitigation measures, there is potential for this species to be impacted during site-based works. Therefore, measures to avoid this are detailed in Chapter 4.

Terrestrial mammals

Badger

The areas of woodland, dense scrub, hedgerows ad grassland habitats within the site provide opportunities for sett building and foraging activity, particularly the unmanaged and less frequently disturbed areas of the site. No evidence of badger, including setts, latrines or foraging activity, was noted within the site during the 2021 Badger Survey (see Report RT-MME-153160-02). However, badgers are known to be present in the wider area. Therefore, in the absence of appropriate mitigation measures, the proposed works could impact badgers. As such, measures to avoid this are detailed in Chapter 4.

Hedgehog

The hedgerows, woodland, scrub and grassland on site provide suitable foraging and refuge opportunities for hedgehog. In the absence of appropriate mitigation measures, there is potential for this species to be impacted during vegetation clearance. Therefore, measures to avoid this are detailed in Chapter 4.

Invasive plants

Middlemarch Environmental Ltd identified New Zealand pigmyweed *Crassula helmsii* within pond P1 during the Preliminary Ecological Appraisal (see Report RT-MME-152753-03 Rev B). In the absence of appropriate mitigation, the proposed works could result in the spread of this invasive species. Therefore, measures to prevent the spread of invasive plant species during the construction works are detailed in Chapter 4.

2.4 SUMMARY

The biodiversity risk assessment presented in Sections 2.1 to 2.3 has identified the following key ecological receptors that could be subject to adverse impacts in the absence of mitigation or control measures during the construction phase of development:

Nature conservation sites

- River Arrow (LWS).

Habitats

- Ditches;
- Hedgerows;
- Plantation woodland;
- Scattered trees;
- Semi-natural woodland; and,
- Standing water.

Species

- Bats;
- Birds;
- Herpetofauna;
- Semi-aquatic mammals (otter);
- Terrestrial mammals (including badger and hedgehog); and,
- Invasive plants.

3. GENERAL CONTROL OF WORKS

This section of the report provides information with respect to the methods that will be implemented during the construction phase, in order to ensure the protection of ecologically sensitive habitats within the site and to prevent significant adverse impacts on any notable species present.

3.1 ECOLOGICAL MANAGEMENT TEAM

The responsibility for ensuring construction works proceed in accordance with the CEMP will lie with the appointed contractor. Overall control will be held by the Project Manager.

An Ecological Manager will be appointed. The responsibilities of the Ecological Manager will include developing method statements and site protocols as required, providing guidance for the site team in dealing with environmental matters, and liaising with contractors/sub-contractors and any statutory or third party with an ecological interest in the scheme. The Ecological Manager will ensure that all site personnel are appropriately briefed on the ecological issues within the site. This will be undertaken through inclusion of ecological briefings within the 'toolbox' talks given to all staff as part of the site induction process.

A suitably qualified Ecological Clerk of Works will be appointed to advise and oversee construction activities, where appropriate, and ensure the site team and sub-contractors comply with site protocols and control/ mitigation measures. Any failings will be reported to the Project Manager immediately, who will be responsible for ensuring that remedial action is implemented.

The Ecological Clerk of Works will be responsible to the Ecological Manager and will approve all method statements, in addition to ensuring that any relevant site environmental protocols and are appended and that these controls are adhered to.

The ecological management team for this project is summarised in Table 3.1.

Role	Persons Responsible
Project Manager / Site Manager	To be appointed by the Contractor
Ecological Manager	Carol Flaxman, Middlemarch Environmental Ltd
Ecological Clerk of Works	Joe Taylor, Middlemarch Environmental Ltd

Table 3.1: Ecological Management Team

3.2 IDENTIFICATION OF BIODIVERSITY PROTECTION ZONES

In order to categorise the site according to ecological risk and to identify areas where certain construction activities are prohibited or restricted, a traffic light system will be implemented. The site has been divided into Red, Amber and Green Zones, with Red Zones being those areas of highest biodiversity interest and of greatest risk from construction.

The areas of the site falling into each of the Biodiversity Protection Zones are detailed in Sections 3.2.1 to 3.2.3, and are shown on Drawing C153160-06-01 Rev B in Chapter 5.

3.2.1 Red Zones / Features

Red Zones are defined as the most ecologically sensitive parts of the development site, or the areas most vulnerable to ecological damage. The following features on site are included in this category:

- Dry ditches;
- Hedgerows (H1, H2 and H3);
- Plantation woodland;
- Scattered trees; and,
- Semi-natural woodland; and,
- Standing water (P1).

Red Zones are the areas that will be retained and protected throughout the development, and works will be subject to ongoing monitoring by the Ecological Clerk of the Works. No works can be undertaken within the red zones without prior consent from the Ecological Manager. Measures that will be implemented to ensure that Red Zones are protected are summarised in Chapter 4.

3.2.2 Amber Zones / Features

Amber Zones are defined as areas of moderate to high ecological value that may be subject to direct or indirect impacts as a result of the proposed development. The following features on site are included in this category:

- Amenity grassland;
- Building;
- Dry ditches (not in red zone);
- Dense scrub;
- Hedgerows (not in red zone);
- Plantation woodland (not in red zone);
- Scattered trees (not in red zone);
- Semi-improved grassland;
- Standing water (not in red zone); and,
- Tall ruderal vegetation.

Any works impacting upon Amber Zones will be subject to control measures (see Chapter 4) and will be undertaken under the supervision or guidance of the Ecological Clerk of Works. Once works within the Amber Zones have been completed, the Ecological Clerk of Works may downgrade these areas to Green Zones.

All works within Amber Zones should proceed with caution and should be subject to regular monitoring by the Ecological Clerk of Works. Specific mitigation and control proposals that will be implemented to minimise the ecological impact of work in Amber Zones are detailed in Chapter 4.

3.2.3 Green Zones / Features

Green Zones are areas identified as having low ecological interest where breaches of wildlife legislation are unlikely to occur. They are of low intrinsic value, and do not offer any key habitat for notable or protected species. Hardstanding is included in this category.

Works within Green Zones are permitted to proceed without supervision by the Ecological Clerk of Works, provided that ecological best practice is adhered to at all times. Should any ecological issues be identified, works will cease and the Ecological Clerk of Works will be contacted for advice.

3.3 QUALITY CONTROL

3.3.1 Site Inductions / Toolbox Talks

All personnel on site will receive a site induction prior to commencing any work activities. The site induction will highlight key issues, operations, times of year and areas in relation to ecology. The induction will include:

- Awareness of the Biodiversity Protection Zones Map (see Drawing C153160-06-01 Rev B in Chapter 5);
- Site activity method statements;
- Reporting hierarchy; and,
- Permit system.

3.3.2 Ecological Permits

Ecological Permits will be required for working in Red or Amber Zones. These will be valid for specific time periods and should be renewed at least once a month.

3.3.3 Ecological Certificates

Once an activity has been completed or work in a designated area is finished, a certificate will be signed by the Ecological Manager or a short letter will be prepared to confirm it has been carried out to an acceptable standard.

3.3.4 Rectification Notices

Rectification notices will be issued by the Ecological Clerk of Works to the Site Manager or a representative of the site team for implementation of action required. These will be signed on completion by the site manager or a representative of the site team and counter signed by the Ecological Manger or Clerk of Works.

3.3.5 Daily Record Sheets

The Ecological Clerk of Works will record activities and observations onto a record sheet during visits to the site.

3.3.6 Revisions to Scheme

Should the need to amend any details of the scheme arise, such as the proposed methods of working or the extent of the works, the proposed changes will be approved in writing by the Ecological Clerk of Works prior to implementation, and also by the Local Planning Authority if required.

4. PRACTICAL MEASURES TO AVOID/REDUCE CONSTRUCTION IMPACTS

This chapter details practical measures that will be implemented to ensure that biodiversity features on site are protected at all times throughout the construction process.

4.1 USE OF PROTECTIVE FENCING / BARRIERS

Retained trees, woodland and hedgerows will be protected during construction by the installation of protective fencing in accordance with the requirements of British Standard 5837: 2012 2012 "Trees in relation to design, demolition and construction - recommendations". Protection will be installed on site prior to the commencement of works.

4.2 NATURE CONSERVATION SITE MITIGATION STRATEGIES

To prevent impacts on the adjacent River Arrow (LWS), mitigation measures relating to noise, pollution, and lighting are made in Sections 4.6 – 4.8.

4.3 INDIVIDUAL SPECIES MITIGATION STRATEGIES

The following text details the mitigation measures for the species which are present, or likely to be present on site. The measures should not be read in isolation, and works should be undertaken in accordance with all described working methods.

- Bats;
- Birds;
- Herpetofauna;
- Semi-aquatic mammals (otter);
- Terrestrial mammals (including badger and hedgehog); and,
- Invasive plants.

Bats

Habitats on site are suitable for use by roosting, foraging and commuting bats. To avoid adverse impacts on bats, the following measures will be implemented:

- If works do not commence before September 2022, then updated bat surveys will be required to establish whether bats have colonised the building or trees T2 and T13 in the interim between the completion of the 2021 bat surveys and the commencement of works on site.
- The current plans indicate that T1 and T3 will be removed to facilitate the works. These trees have low potential to support roosting bats. Therefore, these trees will be subject to soft felling under the supervision of a licensed bat worker to ensure that any bats that may have colonised these trees in the interim since the initial inspection are not harmed during the proposed tree removal works.
- Trees T4, T6, T7, T8, T9, T10, T11 and T12 have high potential to support roosting bats and trees T5 and T14 have low potential to support roosting bats. There are no current plans for any works to these trees. Therefore, these trees will be protected during construction as per Section 4.1 above.
- In accordance with best practice guidance relating to lighting and biodiversity (Miles et al, 2018; Gunnell et al, 2012), any new lighting should be carefully designed to minimise potential disturbance and fragmentation impacts on sensitive receptors, such as bat species. Examples of good practice include:
    - Avoiding the installation of new lighting in proximity to key ecological features, such as hedgerows, trees, woodland edges and River Arrow.
    - Using modern LED fittings rather than metal halide or sodium fittings, as modern LEDs emit negligible UV radiation.
    - The use of directional lighting to reduce light spill, e.g. by installing bespoke fittings or using hoods or shields. For example, downlighting can be used to illuminate features such as footpaths whilst reducing the horizontal and vertical spill of light.
    - Implementing controls to ensure lighting is only active when needed, e.g. the use of timers or motion sensors.

Birds
In order to avoid any breach of legislation with regard to nesting birds, the following measures will be implemented:

- Should works not have commenced on site by October 2023, it is recommended that an updated Winter Bird Survey be undertaken in order to assess any changes in the status of winter birds on site.
- Clearance of vegetation, or pruning works, and building demolition will be timed to occur outside of the period March to September inclusive, if possible. Should any pruning or vegetation clearance works be required within this period, they will be subject to an inspection by a suitably qualified ecologist prior to works commencing. Should any active bird's nests be identified, an appropriate buffer zone will be implemented and maintained until the young have fledged and the nest has been abandoned naturally.

Herpetofauna
In order to avoid any breach of legislation with regard to herpetofauna, the following measures will be implemented:

- If works do not commence within the next 12 months, then updated surveys for great crested newt and reptiles will be required to establish if the suitability of the site has changed, establish if the status of the ponds has changed, and establish if the population of grass snake which the site supports has changed in the interim between the completion of the 2021 surveys and the commencement of works on site.
- The Reasonable Avoidance Method Statement detailed within the Reptile Survey (Report RT-MME-153160-05) will be adhered to in order to ensure that individual reptiles are not harmed by the proposed development. This method statement is also applicable for the protection of common amphibians which are known to be present on site.
- The recommendations within the Great Crested Newt report (RT-MME-153160-03) should be adhered to during the draining of the ponds on site.

In addition to the prepared Reasonable Avoidance Method Statement, taking into consideration the potential presence of nesting birds as well as herpetofauna on site, the following approaches to woody vegetation removal (namely dense scrub, hedgerows and woodland) should be adhered to depending on the timing of works:

- Vegetation removal to be completed between November and February, inclusive (outside nesting bird season but within herpetofauna hibernation season): Remove above ground vegetation to ensure habitats are made unfavourable for nesting bird while leaving the remaining stumps as high as possible (at least 500 mm) as not to disturb any hibernating herpetofauna and all cut vegetation to be removed from site. Stumps to be removed within herpetofauna active season; or
- Vegetation removal to be completed in October (outside nesting bird season and while herpetofauna are active): Above ground vegetation to be removed initially to a height of 200 – 300 mm to encourage any herpetofauna within the vegetation to naturally disperse prior to root removal and top soil strip. All cut vegetation to be removed from site.

Semi-aquatic mammals
In order to avoid any breach of legislation with regard to semi-aquatic mammals such as otter, the following measures will be implemented:

- No works will be undertaken within 30 m of the River Arrow, which runs adjacent to the southern boundary of the site.
- Any excavations that need to be left overnight will be covered or fitted with ramps to ensure that any animals that enter can safely escape.
- Any open pipework with an outside diameter greater than 150 mm will be covered at the end of each workday to prevent animals from becoming trapped.

Terrestrial mammals
Habitats on site are suitable for use by various terrestrial mammals (including badger and hedgehog). To avoid adverse impacts on these species, the following measures will be implemented:

- If works do not commence within the next 12 months, then an updated badger survey will be required to establish if the status of badger within the site has changed in the interim between the completion of the 2021 survey and the commencement of works on site.

- Any excavations that need to be left overnight will be covered or fitted with ramps to ensure that any animals that enter can safely escape.
- Any open pipework with an outside diameter greater than 150 mm will be covered at the end of each workday to prevent animals from becoming trapped.
- Contractors will remain vigilant during site clearance works, particularly the removal of dense scrub. Should any potential badger setts be identified, all works will stop and a suitably experienced ecologist will be contacted for advice.
- Clearance of the rabbit burrows on site will be undertaken sensitively to ensure that no animals are injured or harmed during the works. Clearance of the burrows will be completed carefully and slowly, to allow any rabbits present to escape and disperse to surrounding habitats.

Invasive plants
In order to prevent the spread of invasive plant species, the following Method Statement will be implemented:

Control of New Zealand pigmyweed
The following control measures are taken from the Environment Agency's information booklet 'Managing invasive non-native plants in or near fresh water', which was published in 2010. Emergent growth will be controlled using a highly diluted, high-volume solution of glyphosate (5 ml / litre), applied at a walking rate of 6 seconds / metre; this provides a treatment of 6 l / ha. Application of glyphosate to emergent stands will be carried out from March to October. Regular treatment will be required, and at least two applications may be necessary each year.

There is no effective herbicide treatment for submerged growth. Therefore, the waterbody will be drawn down or drained, if necessary, and then the New Zealand pigmyweed will be treated as emergent growth.

In areas of mixed marginal vegetation, spot treatment of small patches will prevent complete dominance by New Zealand pigmyweed.

Cutting is not recommended but dredging out marginal and emergent material can be effective, as the plant is shallow rooted. The area around any infestation will be fenced to prevent fragments being transported. Dredged material will be piled in heaps and covered with thick black polythene sheeting, or at least 20 cm of soil, for up to 3 months during the growing season.

Works in the New Zealand pigmyweed contaminated area
Middlemarch Environmental Ltd understands the works at the site will involve the creation of reed beds and damp grassland around pond P1. When working within close proximity to the pond, the following precautions will be taken:

- Use of plant machinery and vehicles within the vicinity of pond P1 will be limited until the area polluted with New Zealand pigmyweed has been cordoned off.
- Only essential vehicles and plant machinery will be present in areas polluted with New Zealand pigmyweed. Care will be taken to ensure that polluted material is not dropped or transferred to other areas of the site. The use of wheeled rather than tracked vehicles is recommended as they are easier to clean if contaminated with New Zealand pigmyweed material.
- On leaving areas of the site known to contain New Zealand Pigmyweed, any machinery that has been used will be thoroughly cleaned within a designated area. All hand tools and footwear will be cleaned off in a similar manner.
- All site operatives will be made aware of the requirements associated with the management of this species in order to help limit accidental spread through a Toolbox Talk or similar mechanism.

An Ecological Clerk of Works will visit the site to ensure that the controls within this Method Statement are being followed effectively.

4.4 SUPERVISION AND MONITORING BY ECOLOGICAL CLERK OF WORKS

Works within Red and Amber Zones will be pre-approved by the Ecological Clerk of Works, and ecological supervision will be undertaken as and when required; this includes all works in the Red Zone and any vegetation clearance required in the amber zones taking into consideration nesting birds and herpetofauna.

4.5 STORAGE OF MATERIALS

Avoid storing materials on site for long periods of time and creating large brash piles during any vegetation clearance. If necessary, materials will be stored within the Green Zone. Areas to be used for storage of materials will be agreed with the Ecological Clerk of Works. If any stored materials are left in situ for long periods of time, then they will be carefully dismantled by hand, to ensure that any species that have taken shelter here (e.g. hedgehogs or herpetofauna) are not harmed.

4.6 NOISE

Reasonable measures should be taken to avoid significant increases in noise and vibration during the construction phase of the development. Any construction works on site will be carried out in accordance with British Standard 5228:2009 Code of Practice for Noise and Vibration Control on Construction and Open Sites.

4.7 POLLUTION

Environment Agency Pollution Prevention Guidelines, including those relating to works and maintenance in or near water were formerly withdrawn in December 2015, although do provide a useful framework for the design of working practices. Guidance on Pollution Prevention for Businesses is provided at https://www.gov.uk/guidance/pollution-prevention-for-businesses . These guidelines include details for the design of working practices to avoid pollution during construction and should be followed throughout the construction period.

No bulk storage of fuel and other liquids will be permitted on the site. Fuels and other liquids which must be stored on site will be kept in bunded containers. Spill kits will be available on site and procedures will be in place to deal with any incidents efficiently and quickly.

Re-fuelling of plant/machinery on site should be avoided. If re-fuelling is required, then it should be undertaken as far away from the retained pond, ditch and River Arrow as possible, over a drip tray.

Appropriate dust suppression measures will be put in place to reduce impacts to habitats and species outside of the site boundary. The ‘Construction Dust Information Sheet’ issued by the Health and Safety Executive (2020) provides guidance on controlling construction dust and will be followed throughout the construction period.

4.8 LIGHTING

The development will aim to limit the impact of light pollution on nocturnal fauna which may use the site through the careful use of lighting in critical areas only and at a low level with minimum spillage. See Bats under Section 4.3 for more details.

4.9 TIMING RESTRICTIONS

Table 4.1 details a master timetable of works constrained by timing restrictions in order to minimise the ecological impact of the development. Construction activities not included within Table 4.1 can be completed at any time of the year.

Species	Time of Year											
	Jan	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
Works Within 'Green Zones'												
No timing restrictions	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Works Within 'Amber Zones'												
*Clearance of non-woody vegetation, inc. grassland**												
Herpetofauna	X	X	ECW	ECW	ECW	ECW	ECW	ECW	ECW	ECW	X	X
Nesting birds	✓	✓	ECW	ECW	ECW	ECW	ECW	ECW	ECW	✓	✓	✓
Other species	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
*Clearance of woody vegetation**												
Herpetofauna	ECW[1]	ECW[1]	ECW	ECW	ECW	ECW	ECW	ECW	ECW	ECW	ECW[1]	ECW[1]
Nesting birds	✓	✓	ECW	ECW	ECW	ECW	ECW	ECW	ECW	✓	✓	✓
Other species	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Works Within 'Red Zones'												
No works permitted during construction phase	X	X	X	X	X	X	X	X	X	X	X	X
Control of New Zealand pigmyweed in retained pond	X	X	✓	✓	✓	✓	✓	✓	✓	✓	X	X

Key:
✓: Works may be undertaken without ecological supervision.
*: All vegetation clearance must proceed in accordance with methodologies detailed in Chapter 4.
ECW: Works require supervision by an Ecological Clerk of Works.
ECW[1]: Works require supervision by an Ecological Clerk of Works and must proceed in accordance with methodologies detailed in Section 4.3.
x: No works permitted due to ecological restrictions.

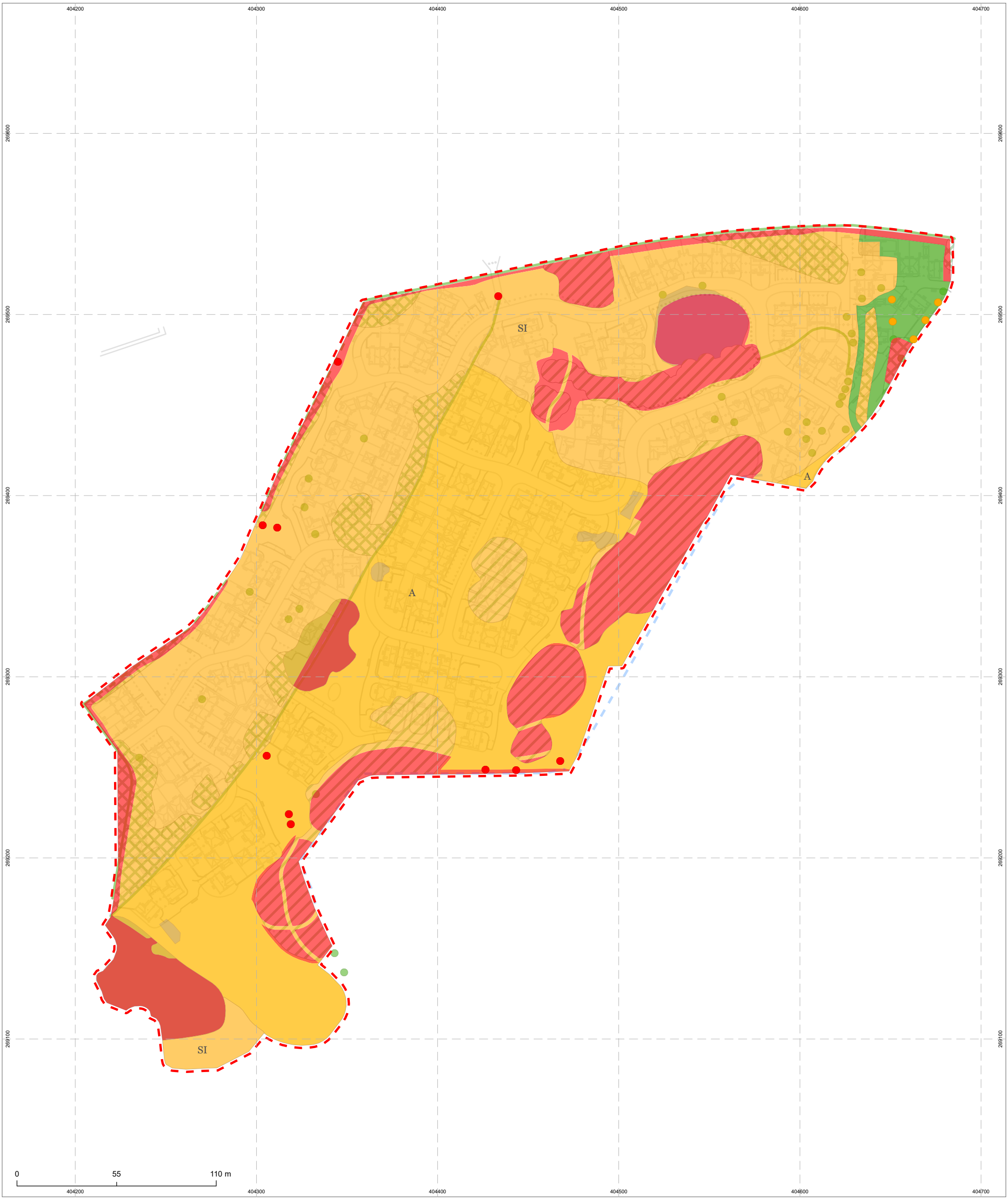
Table 4.1: Master Timetable of Timing Restricted Work Activities

4.10 CONTINGENCY MEASURES

Should any unexpected events occur, e.g. the discovery of unexpected species on site, work will cease and the Ecological Manager / Clerk of Works will be contacted to determine the most appropriate way to proceed.

5. DRAWINGS

Drawing C153160-06-01 Rev B – Biodiversity Protection Zones



Legend

- Site Boundary
- Habitat to be retained and protected
- Habitat of moderate to high value that may be impacted during the works
- Habitat of low value

N

Project: Hither Green Golf Course

Drawing: Biodiversity Protection Zones

Client: Barratt/David Wilson Homes

Drawing Number	Revision
C153160-06-01-RevB	Rev B
Scale @ A3	Date
1:2,000	April 2023
Approved By	Drawn By
RW	RW

MIDDLEMARCH

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C153160-06-01-RevB

APPENDICES

APPENDIX 1: Summary of Wildlife Legislation Application to Proposed Development

APPENDIX 2: Sample Ecological Permits, Certificates and Forms

APPENDIX 1

Summary of Wildlife Legislation Application to Proposed Development

The reader should refer to the original legislation for the definitive interpretation.

Badger
Badgers and their setts are protected under the Protection of Badgers Act 1992. The Protection of Badgers Act 1992 is based primarily on the need to protect badgers from baiting and deliberate harm or injury, badgers are not protected for conservation reasons. The following are criminal offences:

- To intentionally or recklessly interfere with a sett. Sett interference includes disturbing badgers whilst they are occupying a sett, as well as damaging or destroying a sett or obstructing access to it.
- To wilfully kill, injure, take, possess or cruelly ill-treat a badger, or to attempt to do so.

A badger sett is defined in the legislation as: *'Any structure or place that displays signs indicating current use by a badger'*. 'Current use' is not synonymous with current occupation and a sett is defined as such (and thus protected) as long as signs of current usage are present. Therefore, a sett is protected until such a time as the field signs deteriorate to such an extent that they no longer indicate 'current usage'.

Badger sett interference can result from a multitude of operations including excavation and coring, even if there is no direct damage to the sett, such as through the disturbance of badgers whilst occupying the sett. Any intentional or reckless work that results in the interference of badger setts is illegal without a licence from Natural England. In England a licence must be obtained from Natural England before any interference with a badger sett occurs.

Bats
Bats and the places they use for shelter or protection (i.e. roosts) receive legal protection under the Conservation of Habitats and Species Regulations 2017 (Habitats Regulations 2017) and the Conservation of Habitats and Species Regulations (Amendment) (EU Exit) Regulations 2019 (Habitats Regulations 2019). They receive further legal protection under the Wildlife and Countryside Act (WCA) 1981, as amended. This protection means that bats, and the places they use for shelter or protection, are capable of being a material consideration in the planning process.

Regulation 41 of the Habitats Regulations 2017, states that a person commits an offence if they:
- deliberately capture, injure or kill a bat;
- deliberately disturb bats; or
- damage or destroy a bat roost (breeding site or resting place).

Disturbance of animals includes in particular any disturbance which is likely to impair their ability to survive, to breed or reproduce, or to rear or nurture their young, or in the case of animals of a hibernating or migratory species, to hibernate or migrate; or to affect significantly the local distribution or abundance of the species to which they belong.

It is an offence under the Habitats Regulations 2017 for any person to have in his possession or control, to transport, to sell or exchange or to offer for sale, any live or dead bats, part of a bat or anything derived from bats, which has been unlawfully taken from the wild.

Changes have been made to parts of the Habitats Regulations 2017 so that they operate effectively from 1st January 2021. The changes are made by the Habitats Regulations 2019, which transfer functions from the European Commission to the appropriate authorities in England and Wales.

All other processes or terms in the 2017 Regulations remain unchanged and existing guidance is still relevant.

The obligations of a competent authority in the 2017 Regulations for the protection of species do not change. A competent authority is a public body, statutory undertaker, minister or department of government, or anyone holding public office.

Whilst broadly similar to the above legislation, the WCA 1981 (as amended) differs in the following ways:
- Section 9(1) of the WCA makes it an offence to *intentionally* kill, injure or take any protected species.
- Section 9(4)(a) of the WCA makes it an offence to *intentionally or recklessly** damage or destroy, *or obstruct access to*, any structure or place which a protected species uses for shelter or protection.

- Section 9(4)(b) of the WCA makes it an offence to *intentionally or recklessly** disturb any protected species *while it is occupying a structure or place which it uses for shelter or protection*.

*Reckless offences were added by the Countryside and Rights of Way (CRoW) Act 2000.

As bats re-use the same roosts (breeding site or resting place) after periods of vacancy, legal opinion is that roosts are protected whether or not bats are present.

The following bat species are Species of Principal Importance for Nature Conservation in England: barbastelle bat *Barbastella barbastellus*, Bechstein's bat *Myotis bechsteinii*, noctule *Nyctalus noctula*, soprano pipistrelle *Pipistrellus pygmaeus*, brown long-eared bat *Plecotus auritus*, greater horseshoe bat *Rhinolophus ferrumequinum* and lesser horseshoe bat *Rhinolophus hipposideros*. Species of Principal Importance for Nature Conservation in England are material considerations in the planning process. The list of species is derived from Section 41 list of the Natural Environmental and Rural Communities (NERC) Act 2006.

Birds
The Conservation of Habitats and Species Regulations 2017, (Habitats Regulations 2017) and the Conservation of Habitats and Species Regulations (Amendment) (EU Exit) Regulations 2019 (Habitats Regulations 2019) places a duty on public bodies to take measures to preserve, maintain and re-establish habitat for wild birds.

Nesting and nest building birds are protected under the Wildlife and Countryside Act WCA 1981 (as amended).

Subject to the provisions of the act, if any person intentionally:

- kills, injures or takes any wild bird;
- takes, damages or destroys the nest of any wild bird while that nest is in use or being built; or
- takes or destroys an egg of any wild bird, he shall be guilty of an offence.

Some species (listed in Schedule 1 of the WCA) are protected by special penalties. Subject to the provisions of the act, if any person intentionally or recklessly**:**

- disturbs any wild bird included in Schedule 1 while it is building a nest or is in, on or near a nest containing eggs or young; or
- disturbs dependent young of such a bird, he shall be guilty of an offence.

Several bird species are Species of Principal Importance for Nature Conservation in England, making them capable of being material considerations in the planning process.

Common amphibians
Common frogs, common toad, smooth newt and palmate newt are protected in Britain under Schedule 5 of the Wildlife and Countryside Act (1981, as amended) with respect to sale only. They are also listed under Annex III of the Bern Convention 1979. Any exploitation of wild fauna specified in Appendix III shall be regulated in order to keep the populations out of danger. The convention seeks to prohibit the use of all indiscriminate means of capture and killing and the use of all means capable of causing local disappearance of, or serious disturbance to, populations of a species.

Common toad is listed as a Species of Principal Importance for Nature Conservation in England.

Great crested newt
Great crested newts (GCN) and the places they use for shelter or protection receive legal protection under the Conservation of Habitats and Species Regulations 2017, (Habitats Regulations 2017) and the Conservation of Habitats and Species Regulations (Amendment) (EU Exit) Regulations 2019 (Habitats Regulations 2019). They receive further legal protection under the Wildlife and Countryside Act (WCA) 1981, as amended. This protection means that GCN, and the places they use for shelter or protection, are capable of being a material consideration in the planning process.

Regulation 41 of the Habitats Regulations 2017, states that a person commits an offence if they:

- deliberately capture, injure or kill a GCN;
- deliberately disturb GCN;

- deliberately take or destroy eggs of a GCN; or
- damage or destroy a GCN breeding site or resting place.

Disturbance of animals includes in particular any disturbance which is likely to impair their ability to survive, to breed or reproduce, or to rear or nurture their young, or in the case of animals of a hibernating or migratory species, to hibernate or migrate; or to affect significantly the local distribution or abundance of the species to which they belong.

It is an offence under the Habitats Regulations 2017 for any person to have in his possession or control, to transport, to sell or exchange or to offer for sale, any live or dead GCN, part of a GCN or anything derived from GCN, which has been unlawfully taken from the wild. This legislation applies to all life stages of GCN.

Changes have been made to parts of the Habitats Regulations 2017 so that they operate effectively from 1st January 2021. The changes are made by the Habitats Regulations 2019, which transfer functions from the European Commission to the appropriate authorities in England and Wales.

All other processes or terms in the 2017 Regulations remain unchanged and existing guidance is still relevant.

The obligations of a competent authority in the 2017 Regulations for the protection of species do not change. A competent authority is a public body, statutory undertaker, minister or department of government, or anyone holding public office.

Whilst broadly similar to the above legislation, the WCA 1981 (as amended) differs in the following ways:

- Section 9(1) of the WCA makes it an offence to *intentionally* kill, injure or take any protected species.
- Section 9(4)(a) of the WCA makes it an offence to *intentionally or recklessly** damage or destroy, *or obstruct access to*, any structure or place which a protected species uses for shelter or protection.
- Section 9(4)(b) of the WCA makes it an offence to *intentionally or recklessly** disturb any protected species *while it is occupying a structure or place which it uses for shelter or protection*.

*Reckless offences were added by the Countryside and Rights of Way (CRoW) Act 2000.

GCN are listed a Species of Principal Importance for Nature Conservation in England which means they are a material consideration in the planning process. The list of species is derived from Section 41 list of the Natural Environmental and Rural Communities (NERC) Act 2006.

Hedgehog
Hedgehogs receive some protection under Schedule 6 of the Wildlife and Countryside Act 1981 (as amended); this section of the Act lists animals which may not be killed or taken by certain methods, namely traps and nets, poisons, automatic weapons, electrical devices, smokes/gases and various others. Humane trapping for research purposes requires a licence.

Hedgehogs are a Species of Principal Importance for Nature Conservation in England and are thus capable of being material considerations in the planning process.

Invasive plants
The Wildlife and Countryside Act 1981 provides the primary controls on the release of non-native species into the wild in Great Britain. It is an offence under section 14(2) of the Act to 'plant or otherwise cause to grow in the wild' any plant listed in Schedule 9, Part II. This list contains 36 plant species and their hybrids, and includes New Zealand pigmyweed. The Infrastructure Act 2015 makes it possible, under certain circumstances, to compel land owners or occupiers to carry out control or eradication operations, or to allow them to be carried out by the issuing authority.

Otter
The otter benefits from world-wide protection under Appendix I of the Convention on International Trade in Endangered Species of Wild Flora and Fauna. It also receives legal protection under Appendix II of the Bern Convention and Annexes II and IV of the EU Habitats Directive 94/43/EEC, which is transposed into UK Law by means of the Conservation of Habitats and Species Regulations 2017 (Habitats Regulations 2017) and the Conservation of Habitats and Species Regulations (Amendment) (EU Exit) Regulations 2019 (Habitats Regulations 2019).

Regulation 41 of the Habitats Regulations 2017, states that a person commits an offence if they:

- deliberately capture, injure or kill an otter;
- deliberately disturb otters; or
- damage or destroy a breeding site or resting place.

Disturbance of animals includes in particular any disturbance which is likely to impair their ability to survive, to breed or reproduce, or to rear or nurture their young, or in the case of animals of a hibernating or migratory species, to hibernate or migrate; or to affect significantly the local distribution or abundance of the species to which they belong.

It is an offence under the Habitats Regulations 2017 for any person to have in his possession or control, to transport, to sell or exchange or to offer for sale, any live or dead otter, part of an otter or anything derived from an otter which has been unlawfully taken from the wild.

Changes have been made to parts of the Habitats Regulations 2017 so that they operate effectively from 1st January 2021. The changes are made by the Habitats Regulations 2019, which transfer functions from the European Commission to the appropriate authorities in England and Wales.

All other processes or terms in the 2017 Regulations remain unchanged and existing guidance is still relevant.

The obligations of a competent authority in the 2017 Regulations for the protection of species do not change. A competent authority is a public body, statutory undertaker, minister or department of government, or anyone holding public office.

Whilst broadly similar to the above legislation, the WCA 1981 (as amended) differs in the following ways:

- Section 9(1) of the WCA makes it an offence to *intentionally* kill, injure or take any protected species.
- Section 9(4)(a) of the WCA makes it an offence to *intentionally or recklessly** damage or destroy, *or obstruct access to*, any structure or place which a protected species uses for shelter or protection.
- Section 9(4)(b) of the WCA makes it an offence to *intentionally or recklessly** disturb any protected species *while it is occupying a structure or place which it uses for shelter or protection*.

*Reckless offences were added by the Countryside and Rights of Way (CRoW) Act 2000.

Otters are listed as Species of Principal Importance for Nature Conservation in England which means they are a material consideration in the planning process. The list of species is derived from Section 41 list of the Natural Environmental and Rural Communities (NERC) Act 2006.

Reptiles

All of the UK's native reptiles are protected by law. The two rarest species – sand lizard *Lacerta agilis* and smooth snake *Coronella austriaca* – benefit from the greatest protection; however these two species have a limited geographical distribution and special habitat requirements. Common lizard *Zootoca vivipara*, slow-worm *Anguis fragilis*, adder *Vipera berus* and grass snake *Natrix natrix* are protected under the Wildlife and Countryside Act 1981 as amended from intentional killing or injuring.

In England and Wales, this Act has been amended by the Countryside and Rights of Way Act 2000 (CRoW), which adds an extra offence, makes species offences arrestable, increases the time limits for some prosecutions and increases penalties. The Natural Environment and Rural Communities (NERC) Act 2006 places a duty on Government Departments to have regard for the conservation of biodiversity and maintains lists of species and habitats which are of principal importance for the purposes of conserving biodiversity in England and Wales. All native reptile species are included on these lists.

This is a simplified description of the legislation. In particular, the offences mentioned here may be absolute, intentional, deliberate or reckless. Note that where it is predictable that reptiles are likely to be killed or injured by activities such as site clearance, this could legally constitute intentional killing or injuring.

APPENDIX 2

Sample Ecological Permits, Certificates and Forms

ECOLOGICAL PERMIT TO WORK (SAMPLE)

CONTRACT NAME:	**CONTRACT NO:**	**PERMIT NO:**
RECEPIENT:		
ZONE/AREA:		

PROPOSED NATURE OF WORKS:								
ECOLOGICAL ISSUES:								
	Nesting birds		Reptiles		Other			
ECOLOGICAL CONTROL LEVEL:	**Green / Amber / Red**							
ECOLOGICAL CONTROL MEASURES:	Nesting bird check		Reptile habitat supervision		Other			
Vegetation clearance must be undertaken within 48 hours of:								

PROPOSED NATURE OF WORKS:								
ECOLOGICAL ISSUES:								
	Nesting birds		Reptiles		Other			
ECOLOGICAL CONTROL LEVEL:	**Green / Amber / Red**							
ECOLOGICAL CONTROL MEASURES:	Nesting bird check		Reptile habitat supervision		Other			
Vegetation clearance must be undertaken within 48 hours of:								
MS APPROVAL	**YES**		**NO**		**ECW sign:**			
NOTES/ISSUES								
ECOLOGICAL MANAGER								
ECoW								
Notes:								
1. Ecological control levels	Red = No access to areas for working or storage							
	Amber = Full-time to part-time ECoW supervision							
	Green = Visiting ECoW role							
Permit Valid Dates	**From**:				**To**:			
Document No:	**Document date:**				**Revision No:**			

ECOLOGY CERTIFICATE 1 (SAMPLE)

Form of Certificate to be used by the Ecological Manager for certifying that the relevant Works have been completed.

1. We certify that we have used reasonable professional skill and care in examining the Works carried out listed below and that in our opinion all such Works have been completed in all respects in accordance with the Contract, so as to accord with the Ecological Design to which there has been no objection under the Review and Certification Procedure and so as to satisfy the Employer's Requirements and the Contractor's Proposals as amended by the following Contractor's Changes and Employer's Changes.

[DETAILS OF ECOLOGICAL WORKS]

Signed ……..
Environmental Manager (Partner or Director)
Name ……..
Title …….
Date ……

Signed …….
Project Manager (Principal)
Name ……..
Title …….
Date ……
Where the Environmental Manager is not a specialist in this area

2. This certificate is

   i accepted*
   ii accepted with comments:*
   iii returned unaccepted with comments:*
   *delete as appropriate

   Signed ……
   Employer's Agent

   Name ……..

   Date …….

DAILY RECORD SHEET (SAMPLE)

SITE NAME		
ECOLOGICAL CLERK OF WORKS - DAILY RECORD SHEET		
DATE: TBC	**PROJECT NO:**	
ECOW NAME: **TIMES:**	**WEATHER:** **TEMPERATURE-** **CLOUD-** **WIND-** **PRECIPITATION-**	
PLOT REF.	**ACTIVITY SUPERVISED, NOTES ETC**	**ACTION REQUIRED (WHOM)**