



BiOME
CONSULTING

Consall Hall Gardens, Stoke-on-Trent

CONSALL HALL ESTATE LTD

Construction Ecological Management Plan

Final

VERSION 2

16 January 2020

BiOME Consulting Limited | Horseshoe Barn, Halvergate, Norfolk, NR13 3AJ

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Document History and Status

Revision	Date Issued	Reviewed By	Approved By	Date Approved	Revision Type
1	13/01/2020	RM			Draft for technical review
2	14/01/2020	RM	RM	16/01/2020	Final

File Name	BiOME_Consall Hall Gardens_CEcMP
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Client	Consall Hall Estate Ltd
Name of Project	Consall Hall Gardens, Stoke-on-Trent
Name of Document	Construction Ecological Management Plan
Document Version	2

1. Background

Full planning permission was granted on 23 December 2019.

1.1. Description of Development

Proposed change of use and redevelopment of Consall Hall, Private House, Gardens and Wedding Venue to form Hospitality Venue, Wellbeing Hotel & Lodges to enhance the visitor offer and secure the long term viability of the gardens. Develop 15 low-impact, high quality, holiday lodges within the gardens combined with 10 shepherds huts and associated services. Demolish existing outbuildings and construct new enhanced wedding venue, including works to the existing walled garden. Install 21 pods to service the quest of the wedding venue and improve access, parking arrangements and traffic flow. Demolish and replace existing hall and construct new contemporary restaurant/hub building (amended design). Refurbish the existing swimming pool and changing rooms to form new spa facilities. Carry out arboricultural works to the existing gardens including tree removal, pruning and new tree planting.

1.2. Planning Conditions

The development was consented subject to a number of conditions. This document has been produced to satisfy the requirements of Planning Condition 18, Item XI:

No phase of the development hereby permitted shall take place until a Demolition and Construction and Environmental Method Statement has been submitted to and approved in writing by the Local Planning Authority, which shall include the following details:-

[...]

XI. identified and relevant environmental and habitat protection measures along with all relevant mitigation and working method statements to protect species and ecological receptors from harm during works.

All works shall be carried out in accordance with the approved details. Any alteration to this Method Statement shall be approved in writing by the Local Planning Authority prior to any deviation from it.

Reason: - To protect the amenities of the area including residential amenity and the ecological value of the site.

This CEcMP relates to the construction phase of the development only and outlines the methods to be employed to effectively manage the potential ecological impacts arising from the development, to ensure that reasonable protection measures are implemented with regard to key receptors including protected species, habitats and nature conservation sites in the vicinity.

1.3. Site Description

The site, centred on National Grid Reference SJ 98926 48652, is located within the Churnet Valley approximately 2km to the east of the village of Wetley Rocks, Staffordshire. Areas immediately surrounding the site are predominantly deciduous woodland or pastoral farmland with scattered farms and residential properties.

A building complex is present in the north of the site, which is accessed via a ca. 0.5 km tarmacadam drive from the west. This building complex includes the main house, a cottage with adjoining hall which has been used for weddings in the past and a complex of workshops.

Extensive managed gardens extend to the south from the building complex, which include a number of follies and summerhouses. There are six large lakes (up to c.4,300m²) within the site, all of which were excavated during the last 50 years. One further smaller pond is present in the west of the site, near to the access road. In the southeast of the site a 'conservation area' is present, which is largely unmanaged other than limited woodland management and mowing of paths around lakes in this area.

The site encompasses an area of approximately 25ha, of which 5.0ha is a 'conservation area'.

1.4. Baseline Survey Data Collection

In relation to the development of the site, the following baseline ecological survey and assessment work has been completed:

- Extended Phase 1 Habitat Survey (EP1HS)¹
- Bat (roost) Surveys²
- Breeding Bird, Reptile, Bat Activity and Invertebrate Surveys³

A tree survey and arboriculture impact assessment⁴, in line with BS5837:2012, was also completed.

The results of these completed surveys have been used to determine the appropriate mitigation measures required during the construction phase of the project.

1.5. Objectives

A CEcMP identifies the project management structure roles and responsibilities with regard to managing and reporting in relation to the environmental impact of the construction phase of a development.

Within this CEcMP, where applicable, specific Species Protection Plans (SPP) are included. The aim of a SPP is to ensure all reasonable precautions are taken by the Developer and their contractors to safeguard protected species from disturbance (if relevant), injury and death, and to protect any structure or place which any protected species uses for growth, breeding, resting, shelter or protection, during the construction of the development.

Three key objectives within each SPP, provided below, outline the requirements at different stages of the development process and the protocols to be followed in the event of locating, protecting, and avoiding protected species.

- | | |
|--------------------|---|
| Objective A | Implement a monitoring and protection plan for protected species. |
| Objective B | Follow an approved procedure if an active feature is found. |
| Objective C | Ensure adequate education and awareness of site personnel. |

¹ BiOME Consulting Ltd (2018). Consall Hall Gardens, Stoke-on-Trent; Extended Phase 1 Habitat Survey

² BiOME Consulting Ltd (2018). Consall Hall Gardens, Stoke-on-Trent; Bat Survey Report

³ BiOME Consulting Ltd (2019). Consall Hall Gardens, Stoke-on-Trent; Ecology Survey Report 2019

⁴ Tree Heritage (2019). Consall Hall Estate Ltd ; Arboricultural Report

A dedicated method statement produced to obtain a European Protected Species Mitigation Licence in relation to bats has been produced. This details the working methods in place to ensure that no roosting bats are harmed during the construction works.

The overall ecological objectives relevant to this project are provided below.

- All practicable steps shall be taken to minimise the negative ecological effects of construction works.
- All activities shall be conducted in accordance with this CEcMP, relevant legislation, Codes of Practices, Guidelines and any local environmental procedures.
- Ecological licenses, permits and consents and other statutory requirements are to be obtained prior to works commencing, and fully complied with (where required).
- All staff (including sub-contractors) shall be aware of the ecological issues relevant to the Project through the provision of site-specific information on the ecological impacts of construction.
- Regular review of the ecological requirements of the project to ensure that environmental controls remain adequate for the duration of the project.

2. Construction Programme

Demolition/Construction: 20 January 2020 – 14 June 2021

Site Hours of Work:

Construction and associated deliveries to the site shall not take place outside:

- 08:00 to 18:00 hours Mondays to Fridays.
- 08:00 to 13:00 hours on Saturdays.

No works at any time on Sundays or Bank Holidays.

3. Roles & Responsibilities

This section describes the ecological roles and responsibilities of key members of the project team.

The overall responsibility for ensuring that Planning Conditions (and the conditions of any licences granted, if necessary) are adhered to, in particular those conditions relating to protected species, will lie with the Project Manager.

An Ecological Manager will oversee the production of method statements where necessary and be the main point of contact for liaising between the Developer and any third party on ecological issues. The Ecological Manager will also be responsible for ensuring that all site personnel are suitably briefed during inductions on ecological issues (through 'toolbox talks').

An Ecological Clerk of Works (EcCoW) will be appointed to oversee and advise on construction activities to ensure compliance with all ecological protocols, control, and mitigation measures (where required). It is the role of EcCoW to report any breaches immediately to the Site Manager, who will then instigate remediating action. The EcCoW will also agree any changes to the construction schedule where it may impact upon areas of ecological importance or sensitivity.

The personnel responsible for the day-to-day implementation of the project are detailed in **Table 1**.

TABLE 1. ECOLOGICAL RESPONSIBILITIES

Role	Responsible Person
Developer	Consall Hall Estate Ltd
Project / Site Manager	William Scott-Moncrieff (Consall Hall Estate Ltd.)
Ecological Manager	Martyn Owen (BiOME Consulting Ltd.)
EcCoW	Martyn Owen (BiOME Consulting Ltd.)
Tasks	
Overall responsibility for ecological compliance	Project Manager
Implementation of the SPPs and other protocols	Site Manager, with EcCoW support
Monitoring and Review of the SPPs and protocols	EcCoW
Compliance with legal consents and planning conditions relating to nature conservation	Site Manager and construction personnel as advised by the Ecological Manager and EcCoW
Site monitoring for protected species and associated protected features, for: otter, badger, bats, and reptiles	EcCoW, or a suitably qualified ecological surveyor
Installation of physical protection measures during construction	EcCoW or suitably qualified contractor
Regular inspection and maintenance of physical protection measures and monitoring of working practices during construction	EcCoW or suitably qualified contractor
Implementation of sensitive work practices	EcCoW and Site Manager
Provision of training and information about the importance of 'Wildlife protection zones' to all construction personnel on site	Ecological Manager / EcCoW
On-going watching brief for the above	All site personnel

4. Information for Contractors and Visitors

All contractors and visitors to the site will be made aware of the environmental policy and the controls applicable to their presence and activities on site including but not limited to:

- method statements,
- risk assessments,
- site induction which will include environment briefings, and
- tool box talks.

The Project Manager will be responsible for monitoring communications between all relevant parties to the project ensuring that all environmental matters to the project are discussed and managed.

5. Ecological Baseline

Desktop and field surveys of the site have been completed by qualified ecologists^{1,2,3}.Error! Bookmark not defined.

5.1. Habitats

Broad-leaved semi-natural woodland dominates the south of the site and also adjacent to the eastern and western site boundaries, with a smaller area also present in the north of the site. The majority of this habitat type occurs within the conservation area. A variety of tree species were present including oak *Quercus* spp., Silver Birch *Betula pendula*, willow *Salix* sp. and Alder *Alnus glutinosa*. Two areas of semi-mature coniferous plantation were also present, adjacent to the eastern and western site boundaries.

Scrub is present in the centre of the site, largely to the south of the landscaped gardens, around waterbodies where management intervention has been minimal. These areas are typically dominated by Bramble *Rubus fruticosus* agg., with patches of Bracken *Pteridium aquilinum* and occasional tall ruderal species.

The landscaped gardens include mature scattered trees. This area also includes areas of amenity grassland, introduced shrubs as well as riparian habitats.

Small patches of neutral grassland are also present, where mowing has not been recently completed, for example on a south facing slope on the north side of the largest onsite pond.

Six large ponds are present within the landscaped gardens, along with two smaller feeder ponds in the north of the site.

A number of buildings are present in the north of the site, with surrounding hardstanding.

5.2. Species

A number of habitat features were identified within the site that were considered to have the potential or were confirmed to support legally protected animal species.

5.2.1. Badger *Meles meles*

An active Badger latrine was found in the east of the site. No setts were present within areas to be impacted by the proposed works.

5.2.2. Bats

The detailed inspection/survey of all on-site buildings to be impacted by the proposed works has been completed, information in relation to these assessments is provided below.

Due the confirmation of the presence of roosting bats. Works to all buildings within the site will be completed under a European Protected Species mitigation licence, obtained from Natural England.

5.2.2.1. Main House

This building was found to contain a moderately sized (max count of 30 adults) maternity colony of Brown Long-eared Bats *Plecotus auritus* roosting in the single roof void and a moderately sized (max count of 40 adults) maternity colony of Common Pipistrelles *Pipistrellus pipistrellus* in the south gable wall of the roof void. Up to eight Common Pipistrelles also day-roosted away from main colony during maternity period with 13 roosting around the exterior of house during autumn 2019. A single Soprano Pipistrelle *Pipistrellus pygmaeus* also day-roosted within the building.

5.2.2.2. Workshops:

Singles of Common Pipistrelle and Soprano Pipistrelle recorded day roosting during nocturnal surveys. Evidence of a single day-roosting Brown Long-eared Bat also recorded in roof void.

5.2.2.3. Wedding Venue/Cottage:

Up to three day roosting Common Pipistrelles were recorded in the Cottage during nocturnal surveys with evidence of a single day-roosting Brown Long-eared Bat also recorded in roof void.

No evidence of roosting bats was found in association with the existing Wedding Venue.

5.2.3. Other Section 41 Mammals

In the UK Water Voles are usually found within 2m of a water's edge, primarily along densely vegetated banks of ditches, rivers, streams and marshes, and generally where the current is slow. Six records of Water Vole were returned during the desk study, most recently in 2001. No habitats with the potential to support this species were identified within the site.

Otter are now present on many watercourses in Staffordshire, where it requires substantial cover near water, often in tree roots, trees or scrub. It is considered possible that this species occasionally forages within the site.

It is considered likely that the site supports Hedgehog. This species is most abundant where grassland is in close proximity to woodland, scrub or hedgerows and is most common in suburban environments⁵.

Recent surveys have found that the Polecat is currently expanding its range across much of the Britain and are now more widespread than at any time in the last 100 years⁶. No potential Polecat evidence of any sort was recorded during the site surveys (although a dedicated survey was not completed, and such evidence is easily overlooked). Given the habitats present on the site, it is considered possible that this species occurs although the desk study did not yield any records within 1 km of the site.

Brown Hare *Lepus europaeus* was not recorded during the site surveys and are considered unlikely to occur in significant numbers, if at all, within the site.

Harvest Mice *Micromys minutus* require areas of tall, dense grassy vegetation and favour agricultural areas; limited areas of such habitats are present on-site. It is considered possible that this species occurs within the site.

No records of Hazel Dormouse *Muscardinus avellanarius* were returned during the desk study. This species favours deciduous woodland with a well-developed shrub layer, overgrown hedgerows, scrub and plantations where the shrub layer is suitable. Potentially suitable habitats are present within the site, and the

5 Harris, S. & Yalden, D.W. (eds.) (2008). *Mammals of the British Isles: Handbook*, 4th Edition. The Mammal Society

6 Croose, E. (2016). *The Distribution and Status of the Polecat (*Mustela putorius*) in Britain 2014-2015*. The Vincent Wildlife Trust

presence of this species within the site is therefore considered possible, although not in areas to be impacted by the proposed works.

5.2.4. Amphibians

A number of ponds were present within the site. Survey work confirmed that Great Crested Newt *Triturus cristatus* species is absent from the site.

Common Frog *Rana temporaria*, Common Toad *Bufo bufo* and Smooth Newt *Lissotriton vulgaris* have been observed within the site during the survey period.

5.2.4.1. Reptiles

Habitats favoured by reptiles tend to be sunny, well-drained and often south-facing. Typical habitats include grass and heather heathland, chalk downland, coppiced woodland, sand dunes, disused allotments, suburban wasteland, road/railway embankments, golf course roughs, rough grassland, open woodland and woodland edge, immature plantation forestry, sea cliffs, moorland, disused quarries, non-intensive farmland and wild gardens. In addition, Grass Snakes *Natrix natrix* favour damp habitats⁷.

A dedicated reptile survey confirmed the presence of Grass Snake within the site.

5.2.5. Birds

A dedicated breeding bird survey identified a total of 40 species across the survey period, with territories of seven species of conservation concern identified.

5.2.6. Invertebrates

The majority of the areas to be impacted by the development in the north of the site are managed gardens and the potential of these areas to support protected invertebrate species or significant populations of priority species was considered to be negligible, based on the quality of habitats present.

The Lodge Pool area (in the south of the site) supported a more diverse habitat structure, with various species of flowering plant (including Umbelliferae and Asteraceae) present, particularly in the areas of neutral grassland. However, the

⁷ Froglife (1999). *Froglife Advice Sheet 10; Reptile Survey. An introduction to planning, conducting and interpreting surveys for snake and lizard conservation*

site is outside the known range of all EPS^{8,9,10} and no Section 41 butterflies, dragonflies or damselflies were noted during surveys. However, taking into account the difficulties in locating/identifying many other priority invertebrate species, the potential presence of such species in these areas could not be discounted (although the presence of significant populations/assemblages is considered highly unlikely). To inform enhancement proposals, a dedicated invertebrate survey is scheduled to take place during 2020.

5.2.7. Invasive Plants

The sole non-native invasive plant (listed on Schedule 9 of the Wildlife & Countryside Act 1981 (as amended)) present within the site is *Rhododendron ferrugineum*. This species is frequent within the managed garden areas in the site.

8 Butterfly Conservation; Large Blue [online] available at: <https://butterfly-conservation.org/butterflies/large-blue> (accessed 22/10/19)

9 Butterfly Conservation; Fisher's Estuarine Moth [online] available at <https://butterfly-conservation.org/moths/fishers-estuarine-moth> (accessed 22/10/19)

10 Nature Back from the Brink; Little Whirlpool Ramshorn Snail [online] available at: <https://naturebftb.co.uk/the-projects/little-whirlpool-ramshorn-snail/> (accessed 22/10/19)

6. Biodiversity Protection Zones

Areas within the site have been categorised based on the sensitivity of ecological receptors and consequent ecological risk within these areas, with construction activities prohibited or restricted within certain zones (Table 2) in order maintain the biodiversity value of the site and to ensure that no breaches of legislation occur. These are displayed as a traffic light system, with Red Zones being areas of highest biodiversity value and/or at greatest risk from construction activities resulting in ecological damage or a breach of legislation and Green Zones being of lowest ecological significance.

TABLE 2. BIODIVERSITY PROTECTION ZONES	
Area/s within Site	Description
Red Zone Features	
Tree Protection Zones	Red Zones are the areas that will be retained and protected (through the erection of appropriate exclusion fencing) throughout the development process, and works will be subject to on-going monitoring by the EcCoW.
Amber Zone Features	
- All buildings - All vegetation, excluding amenity grassland (lawns)	All works impacting on Amber Zones are subject to control measures as overseen by the EcCoW. The EcCoW has the option to downgrade Amber Zones to Green once work has commenced (i.e. following vegetation clearance).
Green Zone Features	
- Amenity grassland - Hardstanding	Green zones include all other habitats not listed as either Red or Amber and are identified as having low ecological significance where breaches of wildlife legislation are unlikely to occur.

7. Quality Control

To ensure adherence to the protocols and procedures outlined within this CEcMP, the following quality control procedures will be implemented.

7.1. Site Inductions/'Toolbox' Talks

Prior to commencing work, all site personnel will be required to attend a site induction which will include details of all ecological issues outlined within this CEcMP. The purpose of this induction is to highlight key issues relevant to the site, its ecology and the legislation surrounding it, thus protecting both site personnel from breaching legislation and key ecological features from damage/harm. The following aspects will be highlighted to site personnel during the induction:

- Awareness of the Biodiversity Protection Zones
- Minimising ecological impacts during general site activity
- Species Protection Plans
- Reporting hierarchy
- Permit system (if required)

7.2. Ecological Permits

Ecological Permits will be required for all works taking place within Amber Zones (Table 2). These permits will be issued by the Ecology Manager or EcCoW following a site check and will be valid for a finite time period (length to be determined by the Ecology Manager/EcCoW). They will be reviewed at least monthly.

7.3. Revisions to Scheme

Proposed changes, including the scope, extent (temporal and geographic) and methods of work, will be approved in writing by the EcCoW, and if necessary the Local Planning Authority, prior to implementation.

8.Reduction of Construction Impacts on Biodiversity Features

8.1.1. Protective Fencing / Barriers

Where required, temporary fencing will be erected in such a manner as to ensure that construction personnel and machinery remain within the pre-agreed construction areas, thus protecting the identified ecological features of importance. This fencing will be installed to allow the free movement of mammals across the site.

These protective measures will be installed prior to the commencement of construction.

8.1.2. Pollution Prevention

Full details of pollution prevention measures are detailed within the Demolition and Construction Environmental Method Statement.

8.1.3. Lighting

Bat roosts were identified within all on-site buildings. No additional lighting will be installed on site during the construction works that would cause illumination to the roost entrances. This will ensure that bats can continue to leave/re-enter roost locations and commute to foraging grounds in the wider landscape.

Light spillage across the remainder of the site will be minimised, as directed by the EcCOW.

8.1.4. Control of Non-native/Invasive Species

The sole non-native invasive plant (listed on Schedule 9 of the Wildlife & Countryside Act 1981 (as amended)) identified within the site is Rhododendron. This species is frequent within the managed garden areas in the site.

Rhododendron should be removed wherever opportunities exist to do so. All live Rhododendron should be cut to the stump, and the all stump's treated with a suitable herbicide on the day of being cut, following agreement with the EcCOW

Should other invasive species be identified during works, all activities in the vicinity should cease pending advice from the EcCOW.

8.2. Habitats

Any woodland, trees and/or hedgerows on site, or overhanging the site, which are not to be removed as part of the works should be protected in accordance with British Standard 5837: 2012 "*Trees in relation to design, demolition and construction - recommendations*" as detailed within the Arboricultural Method Statement. **Protection should be installed on site prior to the commencement of any construction or earthworks.** Earth works should take into account Root Protection Areas of adjacent trees as well as compaction from nearby construction.

The integrity of these fences will be checked by the EcCOW throughout the works to ensure that they are achieving their objective.

8.3. Species

Table 3 provides summary information in relation to the identified ecological receptors that may be impacted by the development, their level of protection and their status on site. Species Protection Plans for each of the below described ecological receptors are included in **Appendix A**.

TABLE 3. SPECIES/FEATURE, LEVEL OF PROTECTION AND STATUS ON SITE		
Species/ species feature	Highest Level of Protection	Status on site
Badger	National	During the site survey the presence of Badgers within the site was confirmed, although no setts were encountered. Consequently, a precautionary approach to construction activities is required. All areas within the site are suitable foraging habitat for this species; it would therefore be prudent to consider Badgers during redevelopment of the site.
Otter	European Protected Species	No evidence of presence on site, although suitable habitats for this species exists and as such a precautionary approach will be adopted.

TABLE 3. SPECIES/FEATURE, LEVEL OF PROTECTION AND STATUS ON SITE

Species/ species feature	Highest Level of Protection	Status on site
Bats	European Protected Species	Bats roosts present within the all buildings to be impacted by the proposed works. All works to these buildings will need to be completed in strict accordance with the licence issued by Natural England. In addition, there is the potential for bats to roost within trees, although no roosts were identified in trees during surveys.
Reptiles	National	Reptiles (Grass Snake) are present within the site. All works in Amber Zone habitats to be supervised by the EcCOW until downgraded to Green Zone.
Breeding Birds	National	The site supports nesting birds.
Invasive Plants	National	Rhododendron present on site.

Appendix A Species Protection Plans

Badger & Otter

Objective A – Monitoring & Protection Plan

It will be the duty of the EcCoW to check the status of the protected species and associated protected features immediately prior to construction activity progressing across the Site and to continue spot checks during construction for any new protected species features in the vicinity of the construction works.

Guidelines detailing the monitoring of protected species and associated protected features by the EcCoW or suitably qualified ecological surveyor are described below:

Objective B - Follow an approved procedure if an active feature is found; and Potential Features

European Protected Species - Otter:

Further checks of the features that could be utilised by Otters within the site will be completed during construction and any potential protected features will be clearly demarcated.

- If the potential protected feature remains unoccupied, construction may occur in the area, but not damaging the potential feature under close supervision by the EcCoW; or
- If the status of the feature changes to occupied then the under-noted procedure for occupied sites will be followed. The EcCoW will be responsible for this survey work as required.

Nationally Protected Species – Badger:

Surveys of the habitats with the potential to support nationally protected species will be completed during construction. The below mitigation will be implemented:

- Covering/securing all excavations and piping. Where this is not possible, a ramp shall be provided in excavations to allow the escape of any trapped animals.

- Night-time working will be managed to reduce disturbance to nocturnal fauna. Where this is not possible, directional lighting away from features (including mammal paths and watercourses) will be used to minimise light disturbance.
- A speed limit of 15mph for all vehicles on the Site.

Procedure if Active Feature is Found

If an active feature or protected species is found by the EcCoW in advance of construction activity progressing across the Site, the following outlines the procedure to be followed.

If Obstruction, Damage or Destruction (ODD) to a protected species is likely, a location specific ODD risk assessment will be completed. This will consider all potential mitigation measures to avoid ODD. This may include micro-siting of infrastructure around or away from the location and outwith the disturbance zone and the demarcation of the protected feature.

If disturbance is likely, a location specific Disturbance Risk Assessment will be completed. This should firstly consider a revision to the disturbance zone as a result of the site-specific topography and habitat quality (e.g. if a ridge/watercourse lies between activity and a Badger sett then the disturbance zone may be reduced). Also, other measures which could reduce disturbance to an acceptable level should be considered (including micro-siting and the demarcation of the protected site).

The Disturbance or ODD risk assessments will be submitted to Natural England for consideration.

If it is not possible to micro-site and, in consideration of the risk assessment, NE determines that ODD and/or significant levels of disturbance is likely to occur, works will cease in this area pending protected species licencing. If there is uncertainty over whether the feature is occupied a precautionary approach will be adopted and occupancy will be assumed.

Procedure if previously unrecorded protected feature or species found during construction

In the event of any site personnel discovering a previously unrecorded protected feature, the following procedure must be followed:

1. Work should stop immediately within the specified disturbance zone;

2. The EcCoW should be contacted;
3. The location should be checked by the EcCoW to determine/assess the nature of the new find; and
4. If the protected species or feature is confirmed then the procedure detailed in Objective B above should be followed.

Objective C - Education and Awareness

The developer will provide the necessary education and awareness as part of a Site induction to all Site personnel with regard to the protection of protected species that are or could be present on the Site, in particular the actions that should be taken if protected species are seen on the Site. All Site personnel will be informed of the objectives of the SPP to ensure they are aware of any species present in the Site.

This information will include as a minimum:

1. the requirements and use of the SPP;
2. identification of protected species and features;
3. key risk activities and sensitive areas; and
4. site personnel responsible for dealing with protected species.

Bats

Specific information in relation to works in the vicinity of bats roosts is detailed within the Natural England Mitigation Licence

Objective A – Monitoring & Protection Plan

It will be the duty of the EcCoW to check the status of the protected species and associated protected features immediately prior to construction activity progressing across the Site and to continue spot checks during construction for any new protected species features in the vicinity of the construction works.

Guidelines detailing the monitoring of bats and associated protected features by the EcCoW or suitably qualified ecologist are described below. All guidance follows that outlined by the Bat Conservation Trust (BCT)¹¹, Natural England¹², and JNCC¹³:

- If a live bat should be discovered on site at any point during works then works must halt and the Ecology Manager should be contacted for advice.
- Vegetation clearance and construction phase lighting has the potential to disturb bats or break up dark corridors used for foraging and commuting.
- Artificial lighting can adversely impact upon the feeding behaviour of bats. There are two aspects to this: one is the attraction that light from certain types of lamps has to a range of insects (which can therefore attract foraging bats); the other is the presence of lit conditions that can negatively impact foraging bats.

Lighting

Luminaire and light spill accessories

Lighting should be directed to where it is needed and light spillage avoided. This can be achieved by the design of the luminaire and by using accessories

11 Collins, J. (ed.) *Bat Surveys for Professional Ecologists: Good Practice Guidelines*, 3rd edition. Bat Conservation Trust, London. ISBN – 13 978-1-872745-96-1.

12 Mitchell-Jones, A. J. (2004). *Bat Mitigation Guidelines*. English Nature, Peterborough.

13 Mitchell-Jones, A. J. & McLeish, A. P. (2004). *Bat Workers Manual – 3rd Edition*. JNCC, Peterborough.

such as hoods, cowls, louvres and shields to direct the light to the intended area only.

Lighting column

The height of lighting columns in general should be as short as is possible as light at a low level reduces the ecological impact. However, there are cases where a taller column will enable light to be directed downwards at a more acute angle and thereby reduce horizontal spill. For pedestrian lighting this can take the form of low-level lighting that is as directional as possible and below 3 lux at ground level. The acceptable level of lighting may vary dependent upon the surroundings and on the species of bat affected.

Light levels

The light should be as low as guidelines permit. If lighting is not needed, don't light.

Timing of lighting

Redevelopment works are scheduled to take place during daytime only.

Many security lights are fitted with movement sensors which, if well installed and aimed, will reduce the amount of time a light is on each night. This is more easily achieved in a system where the light unit and the movement sensor are able to be separately aimed.

If the light is fitted with a timer this should be adjusted to the minimum to reduce the amount of 'lit time'. The light should be aimed to illuminate only the immediate area required by using as sharp a downward angle as possible. This lit area must avoid being directed at, or close to, any roost access points or flight paths from the roost. A shield or hood can be used to control or restrict the area to be lit. Avoid illuminating at a wider angle as this will be more disturbing to foraging and commuting bats as well as people and other wildlife.

Objective B - Follow an approved procedure if an active feature is found; and Potential Features

The EcCoW must be a Natural England licenced bat worker. If a live bat or possible bat roost is discovered on site at any point during works then works must halt and the EcCoW/Ecology Manager should be contacted for advice. If required, the bat should be taken into care and rehabilitated.

Objective C - Ensure adequate education and awareness of site personnel

Relevant aspects of the SPP and the Natural England Mitigation Licence will be detailed during the formal induction given to all site personnel (including contractors and subcontractors). The Site Manager will be made aware of the legal status of bats on the Site. The developer will provide the necessary education as part of a formal induction to all site personnel with regard to the objectives of the SPP. In particular, the actions that should be taken if any bats are located will be explained in detail.

The EcCoW will meet regularly with the Site Manager to gather information on bat sightings.

Reptiles

Vegetation removal in all work areas should be completed prior to 1 March 2019 under the supervision on the EcCoW. This removal should be completed using hand tools only, with vegetation cut to a height of 15cm above ground level. Cuttings should be transferred away from the work area. This area should be left for a period of at least three days, when temperatures must exceed 10°C to allow any reptiles to relocate. Following approval by the EcCoW vegetation should be cut to ground level.

Objective A – Monitoring & Protection Plan

It will be the duty of the EcCoW to check the status of the protected species and associated protected features immediately prior to construction activity progressing across the Site and to continue spot checks during construction for any new protected species features in the vicinity of the construction works.

Guidelines detailing the monitoring of protected species and associated protected features by the EcCoW or suitably qualified ecological surveyor are described below:

Objective B - Follow an approved procedure if an active feature is found; and Potential Features

Any reptiles found during vegetation removal should be relocated by the EcCoW to a predetermined receptor area within the site.

Procedure if previously unrecorded protected feature or species found during construction

In the event of any site personnel discovering a previously unrecorded protected feature (i.e. any reptilian species other than Grass Snake), the following procedure must be followed:

1. Work should stop immediately within the specified disturbance zone;
2. The EcCoW should be contacted;
3. The location should be checked by the EcCoW to determine the nature of the new find; and

4. If the protected species or feature is confirmed then the procedure detailed in Objective A above should be followed.

Objective C - Education and Awareness

The developer will provide the necessary education and awareness as part of a Site induction to all Site personnel with regard to the protection of protected species that are or could be present on the Site, in particular the actions that should be taken if protected species are seen on the Site. All Site personnel will be informed of the objectives of the SPP to ensure they are aware of any species present in the Site.

This information will include as a minimum:

1. the requirements and use of the SPP;
2. identification of protected species and features;
3. key risk activities and sensitive areas; and
4. site personnel responsible for dealing with protected species.

Breeding Birds

Vegetation removal in all work areas should be completed prior to 1 March 2019 under the supervision on the EcCoW. Due to the potential presence of reptiles, his removal should be completed using hand tools only, with vegetation cut to a height of 15cm above ground level. Cuttings should be transferred away from the work area. This area should be left for a period of at least three days, when temperatures must exceed 10 °C (to allow any reptiles to relocate). Following approval by the EcCoW vegetation should be cut to ground level.

It should be ensured that all areas are regularly cut to ensure that no suitable nesting habitat develops. All areas should be checked regularly by the EcCoW.

Objective A – Monitoring & Protection Plan

This section details the procedures to be followed to ensure that all reasonable precautions have been taken to protect birds' nests, eggs, and dependent young during construction works.

As construction is currently scheduled for within the nesting season (March to August, inclusive) it will be necessary to undertake a pre-commencement inspection of all vegetation and buildings for active bird nests. The EcCoW, should carry out the check. Only if there are no active nests present should work be allowed to commence.

Regular monitoring of breeding bird activity, and areas cut to render them unsuitable, will be undertaken by the EcCoW during construction to ensure any changes in breeding bird activity are recorded and the protection plan updated as required.

Objective B – Follow an approved procedure if an active feature is found; and Potential Features

If a nest of a wild bird is found, that is not listed on Schedule 1, the following procedure will be followed:

1. An appropriate construction exclusion zone (to be determined by the EcCoW) around the nest site will be established immediately;
2. The area will be demarcated with barrier tape and the appropriate personnel informed; and

3. No construction activity which may directly impact the nest will be allowed until the EcCoW, or a suitably experienced ornithologist/ecologist, confirms that the nest is no longer in use by nesting birds.

Personnel Discovering Active Nest

In the event of site personnel discovering an active nest site the following procedure must be followed:

1. Work must stop immediately in the vicinity around where the nest site was recorded.
2. The EcCoW must be contacted;
3. The location should be checked by the EcCoW or suitably experienced ornithologist/ecologist to determine if an active nest is present.

Objective C - Education and Awareness

Relevant aspects relating to the protection of breeding birds will be detailed during the formal induction given to all site personnel (including contractors and subcontractors).

The Site Manager will be made aware of legal status of the breeding birds on the Site. The developer will provide the necessary education as part of a formal induction to all site personnel. In particular, the actions that should be taken if breeding birds are seen will be explained in detail.

The EcCoW will meet regularly with the Site Manager to gather information on possible breeding bird sightings. Any areas where possible breeding activity has been observed will be assessed by the EcCoW.

Invasive Species

The locations of Rhododendron within work areas should be identified and removed in accordance with best practice.

The EcCoW will complete regular checks for invasive species throughout the work programme. If encountered, works in the relevant area will cease and the Ecology Manager contacted.

Appendix B Relevant Legislation

Badger

Badger are protected through the Protection of Badgers Act 1992¹⁴, which makes it an offence to recklessly take, injure or kill a Badger or cause disturbance to its sett. Furthermore, Badgers are afforded protection from ill-treatment, which has been defined to include preventing a Badger accessing its sett, as well as causing the loss of significant foraging resources within a Badger territory. Badgers are also protected through this species' inclusion on Schedule 6 of the Wildlife and Countryside Act 1981 (as amended), which prohibits their killing or taking by certain methods.

Otter

The Otter is a European Protected Species under the Habitats Directive 1992, the Conservation of Species and Habitats Regulations 2010 and the Wildlife & Countryside Act 1981 (as amended).

Otters are also protected under Appendix I of the Convention on International Trade in Endangered Species of Wild Flora and Fauna, and the Appendix II of the Bern Convention

Under Regulation 42 (1) of the Habitats Regulations 2010 (as amended) states that it is an offence to:

- a. deliberately or recklessly to capture, injure or kill a wild animal of a European protected species;
- b. deliberately or recklessly:
 - i. to harass a wild animal or group of wild animals of a European protected species;
 - ii. to disturb such an animal while it is occupying a structure or place which it uses for shelter or protection;
 - iii. to disturb such an animal while it is rearing or otherwise caring for its young;

¹⁴ HMSO, London. HMSO. (1992). *Protection of Badgers Act 1992*. HMSO, London.

- iv. to obstruct access to a breeding site or resting place of such an animal, or otherwise to deny the animal use of the breeding site or resting place including bat roost sites;
- v. to disturb such an animal in a manner that is, or in circumstances which are, likely to significantly affect the local distribution or abundance of the species to which it belongs; or
- vi. to disturb such an animal in a manner that is, or in circumstances which are, likely to impair its ability to survive, breed or reproduce, or rear or otherwise care for its young;
- c. deliberately or recklessly to take or destroy the eggs of such an animal; or
- d. to damage or destroy a breeding site or resting place of such an animal.

Bats

All species of bats found in the UK are European Protected Species under the Habitats Directive 1992, the Conservation of Species and Habitats Regulations 2010 and the Wildlife & Countryside Act 1981 (as amended).

Under Regulation 42 (1) of the Habitats Regulations 2010 (as amended) states that it is an offence to:

- e. deliberately or recklessly to capture, injure or kill a wild animal of a European protected species;
- f. deliberately or recklessly:
 - i. to harass a wild animal or group of wild animals of a European protected species;
 - ii. to disturb such an animal while it is occupying a structure or place which it uses for shelter or protection;
 - iii. to disturb such an animal while it is rearing or otherwise caring for its young;
 - iv. to obstruct access to a breeding site or resting place of such an animal, or otherwise to deny the animal use of the breeding site or resting place including bat roost sites;

- v. to disturb such an animal in a manner that is, or in circumstances which are, likely to significantly affect the local distribution or abundance of the species to which it belongs; or
- vi. to disturb such an animal in a manner that is, or in circumstances which are, likely to impair its ability to survive, breed or reproduce, or rear or otherwise care for its young;
- g. deliberately or recklessly to take or destroy the eggs of such an animal; or
- h. to damage or destroy a breeding site or resting place of such an animal.

Birds

The active nests of all wild birds are protected under the Wildlife & Countryside Act 1981 (As amended)¹⁵. An active nest is one being built, containing eggs or chicks, or on which fledged chicks are still dependent. It is an offence to:

- intentionally or recklessly kill, injure or take any wild bird;
- intentionally or recklessly damage or destroy the nest of any wild bird while it is being built or used; and
- Intentionally or recklessly take or destroy an egg of any wild bird, or to cause or permit any of these acts.

It is also an offence to have in possession or control any live or dead wild bird or any part thereof; or any egg or part of an egg of any wild bird.

Further special protection under this legislation is afforded to those species listed on Schedule 1 of the Act. For these species, it is an offence to:

- Intentionally or recklessly disturb any wild bird listed on Schedule 1 while it is nest building, or at a nest containing eggs or young, or disturb the dependent young of such a bird;

¹⁵ HMSO. (1981). Wildlife & Countryside Act 1981. HMSO, London .

- Intentionally or recklessly harass any wild bird included in Schedule 1A. Red kite are the only species currently listed that could potentially be present in the vicinity of the development; and
- Intentionally or recklessly take, damage, destroy or otherwise interfere with any nest and/or nest site habitually used by bird on Schedule A1 at any time. The white-tailed eagle and golden eagle are the only birds listed in Schedule A1 currently.

Further protection is described under the EU Birds Directive which requires member states to maintain wild bird species in favourable conservation status** and promote the conservation of bird species listed within Annex 1 through the protection of their habitat. This is achieved via the designation of Special Protection Areas (SPAs).

Red List bird species are those deemed to be globally threatened and to be suffering population declines within the UK. Although not legally enforceable, the conservation of Red List bird species represents a material consideration, in planning terms

*Exceptions to these offences exist under various circumstances (e.g. controlling pest species; taking birds during specific seasons; and killing sick or injured birds etc.).

**While the term '*favourable conservation status*' is not used in the Birds Directive, EU court cases over recent years have progressively interpreted the concept as meaningful in a Birds Directive context (SNH, 2006).

Reptiles

Reptiles are protected under Schedule 5 of the Wildlife and Countryside Act 1981. Section 9(1) of the Wildlife and Countryside Act 1981 prohibits the killing, injuring or taking by any method. Additional protection befalls Sand Lizard and Smooth Snake, neither of which are found within Staffordshire.