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## Construction Environment Management Plan (CEMP): Biodiversity

Mount Vernon Road, Barnsley

Orion Homes





Report Reference:	Construction Environment Management Plan (CEMP): Biodiversity Mount Vernon Road Barnsley
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The information which we have prepared and provided is true and has been prepared and provided in accordance with the CIEEM's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions. This report does not constitute legal advice.

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# Introduction

This document is produced for Orion Homes (the Developer) to show how the proposed residential development on the former Mount Vernon Hospital, Barnsley, can be built out without impacting on important ecological features.

This document is produced with reference to British Standard 42020 Clause 10.2 Construction Environment Management Plan (CEMP). It is produced to aid in the discharge of Condition 21 of the Planning Application (reproduced below) to show how biodiversity and arboricultural features will be protected during the construction phase of the development.

## **Condition 21**

*On commencement of the development, a Construction Environment Management Plan (CEMP Biodiversity) prepared in accordance with BS:42020 shall broadly follow the measures set out in the Preliminary Ecological Appraisal on pages 18 and 19 by Brooks Ecological. Thereafter the development shall be carried out in accordance with the approved measures.*

In producing this plan, the following information sources are referred to:

- **Preliminary Ecological Appraisal Report, Brooks Ecological R-3716-02 April 2019**
- **Arboricultural Impact Assessment AR-3716-01.03, September 2019—revised February 2020**
- **Landscape Proposals. Landscape Planning Partnership Drawing H2 181003.1C**

## **Responsible Persons & Lines of Communication**

An Ecological Clerk of Works (ECoW) will be appointed by the Developer prior to any activity commencing on site.

The Developer will formalise lines of communication with the ECoW establishing who within their operation is responsible for actions on site prior to any work commencing. These links will be maintained until such a time as a Site Manager is appointed and assumes this responsibility.

The Developer is responsible for maintenance of protection and exclusion fencing.

The Developer is responsible for compliance with regulations, legal consents, planning conditions, environmental procedures and contractual agreements and the issuing of periodic reports on success and



**Figure 1** Development plan

compliance. These periodic reports will feedback into the CEMP for the subsequent phase(s) and the Developer will ensure the results of this review are effectively communicated to on-site staff.

## **The Role of an Ecological Clerk of Works**

The ECoW will be a suitably trained and experienced professional ecologist who is a member of the Chartered Institute of Ecology and Environmental Management (CIEEM).

The Developer will take all measures necessary to comply with the recommendations. ECoW visits will be carried out according to Site conditions. The Site Manager will call the ECoW to site as soon as any of the following emergency events occur:

### Encountering protected species

Should any protected species (or nesting birds) be encountered during any phase the ECoW will be consulted. Any advice provided to ensure that wildlife offences are not committed will be followed. This could include curtailing works in part or all the site until appropriate species mitigation, licensing or agreed avoidance measures be secured.

### Damage to retained habitats

The Site manager will follow the advice of the ECoW to ensure that the careful like for like restoration of habitats damaged is enacted in the first available season. This may include replanting, re-seeding and appropriate establishment management.



# Risk Assessment of Potentially Damaging Development Activities

The Preliminary Ecological Appraisal and subsequent surveys for particular protected species have identified and assessed the potential impacts on species and habitats at risk from development.

The PEA (p.19) states that the CEMP should include:

- nesting bird management
- protection of tree root zones and retained habitats

## Constraints (On-Site)

The existing site is comprised mostly of the former hospital building with associated areas of lawn and soft landscaping. The main constraint on the Site is Highstone Plantation woodland which forms part of the site along its south-western boundary. This is the subject of a Tree Preservation Order (TPO) through Barnsley MBC and will be retained and protected throughout construction.

## Constraints (Off-Site)

Potential for the use of Highstone Plantation woodland by bats requires that controls are put in place to mitigate potential impacts on these species.

**Table 1** Ecological constraints

Habitat/ Feature	Protected/ Notable species
Tree and Hedgerows (on-Site)	Nesting birds (on-Site)
Woodland (on-site)	Bats (on and off-Site)

## Impacts

Impacts on biodiversity features and associated fauna fall into the following broad categories:

- Vegetation clearance;
- Soil stripping;
- Re-spreading soil and stored materials
- Noise generation, and disturbance.

## Construction Stages

### i) Site clearance and soil stripping

Trees and woody vegetation are usually removed by a forestry or arboricultural contractor using either a large driven mulching machine which chops arisings and incorporates with the soil, or locally by hand machinery with material being chipped and spread, piled or removed.

Large excavators scrape back soil to create clear development platforms. Topsoil is taken by dumper to soil stores on Site, where it can be left for many months before being reused on Site.

This phase presents the greatest risk to nesting birds and the health of retained hedgerows and trees.

### ii) Installing drainage

Creating drainage will require localised vegetation clearance away from the development platforms. Machinery will excavate trenches for pipes and the trenches will be backfilled and surfaced.

### iii) Installing roads and sewers

This is normally completed by a contractor digging into the cleared development platforms as the first construction activity.

### iv) Building out the cleared plot

Typical activities which require Ecological Clerk of Works (ECoW) overseeing are likely to be: clearing any remaining bird nesting habitat or clearance of soil stores (which could have been used by fauna such as badger /fox).

# Potentially Damaging Development Activities

## High Risk: Destroying bird nests

If carried out during the breeding season, works which require the removal of trees and shrubs present a high risk of affecting nesting birds contrary to the Wildlife and Countryside Act (1981). There is potential for nesting birds to be present within trees and shrubbery though the northern boundary hedge is at higher risk.



## Control 1 : Timing and Survey

**Timing :** The site will be cleared outside of the bird nesting season (in period October-February).

**Survey:** Where this is not possible or sections have been missed and need to be cleared in the period March to September the ECoW will carry out nesting surveys of the vegetation to be affected no more than 24 hours prior to clearance works . The blue hatched area in the figure right is subject to this control.

If nests are found these will be demarcated on the ground and works will avoid them until birds have fledged or abandoned the nest. An ecologist inspection report will be produced before works continue. In areas where vegetation is too dense to allow the ECoW to conclude likely absence of a nest the ECoW will supervise vegetation clearance. Only hand held brush cutters will be used in these areas. The ECoW will direct cutting until such a time that she/he is satisfied that no nests are present .



# Potentially Damaging Development Activities

## Moderate Risk: Unnecessary damage to trees and hedgerows

Without protection in place development poses a moderate risk of affecting retained trees, boundary hedges and trees adjacent to site boundary which have an extensive root zone.

*Controls and illustrated fencing in this plan are supplementary to those specified in the Arboricultural Impact Assessment which should take precedence.*

## Control 2: Tree protection fencing

1. Fencing is required to protect tree root zones for retained trees and hedgerows.
2. Fencing will be installed prior to or in conjunction with site clearance works if these can ensure adequate protection of retained trees and vegetation in the process.

## Control 3: Hedge protection fencing

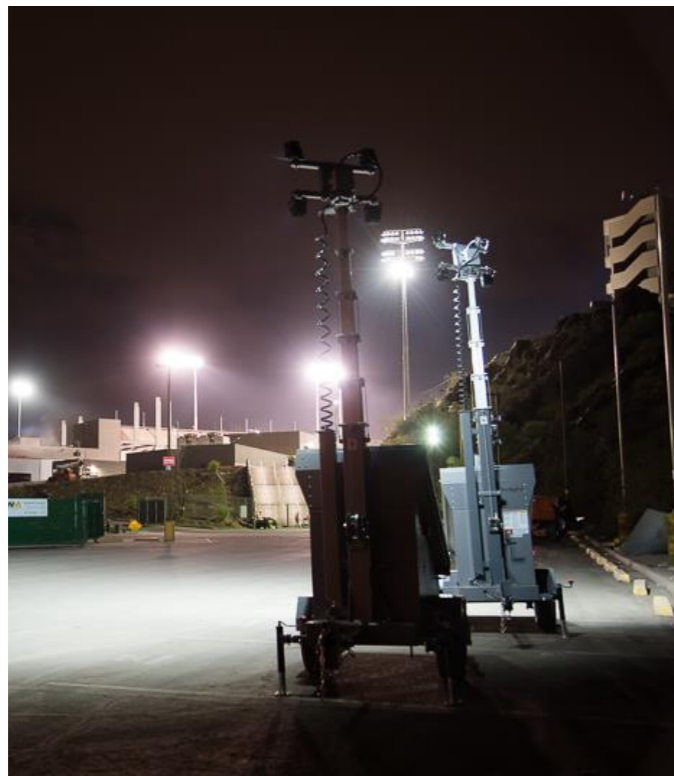
1. Fencing required to protect the retained hedgerow to the northern boundary will consist of barrier fencing suitable to prevent accidental incursion of plant and machinery.



# Potentially Damaging Development Activities

## Moderate Risk: Disturbance to bats

Surveys have identified the retained woodland in Highstone Plantation as suitable for use by foraging and commuting bats. As this area is to be retained and protected bat activity has not been directly assessed but presence may be assumed and precautionary controls put in place to mitigate disturbance.



## Control 4: Fencing and lighting controls

1. Fencing to the Biodiversity Protection zone will inhibit site activity in close proximity to the woodland areas. Fencing and signage will define this area as a protected dark zone throughout the construction phase.
2. Site lighting towers during construction will be positioned to reduce unnecessary artificial flood lighting from spill into the adjacent woodland and boundary habitats.



# Potentially Damaging Development Activities

## Moderate Risk: Incidental Pollution during construction works

Incidental Pollution to the Biodiversity Protection Zone from noise, light spill, dust and chemicals remains a risk throughout the construction phase and requires a planned approach to manage and mitigate these risks.

Areas of higher value and more sensitive habitat are indicated as Biodiversity Protection Zones (BPZ) in the figure right. These areas require particular consideration through the construction phase.

Controls identified below mitigate risks specific to biodiversity impacts in BPZ areas and are supplementary to the wider environmental management of the development.



## Control 5: Incidental Pollution Control

- Dust**  
Where conditions give rise to excessive dust, dust sheeting will be attached to fencing to prevent drift into the BPZ, or spray damping used to control.
- Chemical pollution**  
Chemicals must be stored away from the BPZ with adequate signage, bunding and spill controls in place.
- An Ecological Clerk of Works or environmental engineer will be consulted to advise on mitigating impacts from specific activities as required.





# Work Schedule

The work schedule below outlines when the tasks required should be carried out, and whether input is required from the ECoW.

Task	ECoW to carry out	Prior to any work in identified areas	Other timing considerations
Control 1 Clearance timing	Yes	Yes	Clearance completed
Control 2 Tree protection fencing Control 3 Hedge protection fence			May be installed following removal of approved trees and vegetation if clearance works use low impact vehicles.
Control 4 Lighting controls			To be advised by ECoW and monitored throughout as required
Control 5 Incidental pollution controls			Planned prior to start monitored throughout construction
ECoW monitoring and reporting.	Yes	Yes	Ongoing monitoring as required in response to reported issues
ECoW available for unforeseen issues and supervision	Yes	Yes	Provide suitable notice to arrange Site visits