



Construction Environmental Management Plan: Biodiversity

Introduction

Site name

Quarry Bank

Purpose of report

Ostara Ecological Services Ltd was commissioned to produce a Construction Environmental Management Plan (CEMP): Biodiversity for land off Quarry Bank. This document provides details of risk from potentially damaging construction activities on ecological features, mitigation measures to reduce impacts, the location and timings of sensitive works and responsible persons.

Planning Conditions

Condition 11: Before the commencement of works, an Ecological Construction Management Plan (ECMP)

shall be submitted and approved in writing by the local planning authority and the measures and works outlined in the plan shall be undertaken before the development is first brought into use and the site shall be maintained and managed in accordance with the ECMP for the lifetime of the development. The ECMP shall include the following:

- a. Precautions for amphibians, mammals and nesting birds.
- b. Spoil disposal details.
- c. Pollution prevention measures.
- d. Tree/hedgerow protection plan.

Reason:-

In the interests of the ecological value of the area and to achieve a Net Biodiversity Gain.

Ecological Baseline

An ecological baseline assessment was undertaken on 5th December 2024. The site comprised species caravans, horse stable, species rich native hedgerow, mature individual trees and species poor semi-improved horse grazed grassland. The site was considered to support a range of protected and priority species is provided below:

- ★ Foraging mammals
- ★ Reptiles
- ★ Nesting Birds



Location

Bats



Birds

- ★ Damage or destroy breeding sites or resting places of such animals;
- ★ Possess or transport any part of a species; and/or
- ★ Sell, barter or exchange any part of a species

All birds, their nests and eggs are protected by law, under the Wildlife and Countryside Act (WCA) 1981 (as amended) constituting that it is an offence to:

- ★ Intentionally kill, injure or take any wild bird;
- ★ Intentionally take, damage or destroy the nest of any wild bird whilst it is in use or being built;
- ★ Intentionally take or destroy the egg of any wild bird;
- ★ 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.

Prosecution under the WCA 1981 (as amended) in respect of a single bird, nest or egg can lead to a fine of up to £5,000 and/or six months imprisonment.

Other notable species

Species highlighted for further consideration within this report are European hedgehog and common invertebrates which are all listed as UK Biodiversity Action Plan (UK BAP) priority species and as species of principal importance (section 41) of the Natural Environment and Rural Communities Act 2006. Although such species do not receive protection under criminal law their presence is a material planning consideration. Consequently:

- ★ Regional Planning Bodies and Local Planning Authorities will use the Section 41 list to identify the species and habitats that should be afforded priority when applying the requirements of the National Planning Policy Framework (NPPF) (MHCLG, 2018) to promote the “protection and recovery of priority species populations”.
- ★ Local Planning Authorities will use it to identify the species and habitats that require specific consideration in dealing with planning and development control, recognising that under NPPF the aim of planning decisions should be to minimise impacts to biodiversity.



Risk Assessment of Potentially Damaging Construction Activities

In order to categorise the site according to ecological risks 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, Orange and Green Biodiversity Protection Zones, with Red Zones being those areas with highest risk severity. Failure to adhere to the constraints associated with a particular zone is likely to result in a breach of the legislation.

- ★ **Red Zone:** Works within the Red Zone are not permitted until appropriate mitigation has been delivered.
- ★ **Orange Zone:** Works within the Orange Zone will need to be undertaken following approval by the Ecological Clerk of Works only (and maybe time limited)
- ★ **Green Zone:** Work within the green zone can be undertaken without ecological supervision but following prescribed construction control measures.



Potential Impacts	Pre-Construction Phase	Construction Phase	Post Construction	Action / Mitigation	Monitoring
Trees & hedgerows	Installation of protective fencing as per BS5837:2012.	Ensure physical protection of retained trees and hedgerows and their root systems	Rotational management of hedgerows	All retained trees will be protected in accordance with British Standard BS5837:2012 Trees in Relation to Construction, including the erection of robust protective fencing encompassing root protection areas.	Weekly checks of protective fencing by the ECoW / biodiversity champion.
Reptiles	The habitat manipulation exercise will involve progressive clearance of potential habitat to a low sward height, encouraging any reptiles, amphibians or other species (if present) to disperse to retained habitats at the site margins	A pre-construction walkover to ensure habitat has been maintained.	Enhance the pond, with wildflower planting and hibernacula	The following sequence of activities will be carried out: Scrub will be removed using hand tools such as chainsaws and/or brush cutters; Grass and ruderal vegetation will be cut back to a height of approximately 20- 30cm height initially; Following a period of at least one week, grass and ruderal vegetation will be cut to ground level; The habitats within affected areas should then be maintained as low suitability habitats for these species through regular mowing or strimming to a short sward height. The destructive search would take place immediately prior to soil stripping, and would comprise a systematic search of the areas of particularly suitable habitats and individual refugia with the potential for reptiles or amphibians, fingertip searching and careful removal of any refugia (rubble, stones, logs, rubbish etc.) and translocation of any animals that are found. Once the supervising ecologist gives consent a carefully controlled and ecologically supervised vegetation strip of potential habitat would be carried out. This creates controlled and directed disturbance which causes reptiles to endeavour to escape, allowing them to be captured by the supervising ecologist. Once the vegetation has been physically removed, no suitable reptile habitat would remain on the site and development can safely commence.	Any clearance of grassland will be undertaken under the supervision of an EcoW. A toolbox talk will also be given to site workers and reptile identification information will be displayed on site.



Risk Assessment of Potentially Damaging Construction Activities

Foraging mammals	Protection of retained habitat as above. Site visit prior to works commencing to check the setts activity	The site preparation, earthworks and construction phase of the Scheme has the potential to bring about negative effects on foraging mammals though fragmentation and potential injury / harm to individuals and commuting and foraging across the Site.	None	Hedgehogs (foxes, rabbits, common mammals) could use the peripheries of the site and wider area for foraging and commuting purposes and therefore measures need to be put in place during the construction phase to minimise effects upon movement and foraging activity. These measures include the following: ★ Fencing dangerous areas of the construction site (e.g. deep excavations) or providing a means of egress from shallow excavations; ★ Storage of plant and materials on areas of potential foraging habitat (e.g. retained grassland) will be avoided; ★ Noise reduction measures during construction (please refer to the Noise and Vibration section of this table for more information); ★ There will be no night works unless specifically needed, to avoid disturbance by artificial lighting; and ★ Where the use of lighting is unavoidable, hoods, cowls or shields will be used to avoid light spill onto hedgerows and trees.	Daily checks of ground protection measures by an appointed person. Reports and records kept by Biodiversity Champion
Reptiles	Protection of retained habitats	Implementation of precautionary measures and good working practices.	Grassland enhancement area	As per the foraging mammals above. Avoidance to the removal of log piles during hibernation season (October to February).	As above.



Risk Assessment of Potentially Damaging Construction Activities

Birds	Nesting bird checks in any vegetation to be cleared (within 48hrs of planned clearance) (March – August) by ECoW	Monitoring of active nests before removal (if applicable) Survey of vegetation before removal		Suitable bird nesting habitat clearance should be undertaken outside of the bird nesting season (indicatively March to August). Where clearance of habitat is not possible outside of the breeding bird season, all areas to be affected will be checked for evidence of nesting birds by ECoW. The check will be undertaken a maximum of 24 hours prior to the vegetation removal taking place. If any active bird nests are discovered these will be cordoned off with a buffer of at least 5m (this may increase depending on the species, proposed works and location) where no potentially disturbing works will take place. The buffer will remain in place until the young have fledged and the nest vacated. Upon fledging, a second nesting bird check would then be undertaken to ensure the vegetation does not contain any further active nests prior to felling or removal works taking place. Measures will be taken to conserve and protect retained trees, shrub and hedgerow habitat which provide a nesting resource for birds. This will include the installation of protective fencing in line with BS5837:2012.	Regular monitoring checks by ECoW of any active nests identified. Reports and records keep by Biodiversity Champion
Bats	Installation of protective fencing as per BS5387:2012.	Ensure lighting directed away from boundary habitats and fencing maintained. No works to happen to potential roost trees of moderate or high suitability until survey to confirm absence of bat roosts. Or		★ Toolbox talk on bats to be delivered by Biodiversity Champion/ ECoW to construction workers. ★ Site lighting during the construction phase will be kept to a minimum at night ★ Use of shields, hoods, cowls or other directional lighting where lights are required overnight to be utilised. ★ No night works, any site lighting directed away from boundary habitats	Regular checks of lighting requirements and positioning. Weekly checks of protective fencing by the ECoW / biodiversity champion Reports and records keep by Biodiversity Champion



Risk Assessment of Potentially Damaging Construction Activities

		works undertaken under European Protected Species licence.			
Other notable species	Protection of retained habitat as per above.	Implementation of precautionary measures. Sensitive clearance under the supervision of an ecologist.		Mitigation will also include the sensitive clearance of suitable habitat and the retention of boundary habitats under ECoW supervision, together with the enhancement of retained features, and creation of new areas of habitat managed for biodiversity.	Any clearance of grassland should be undertaken under the supervision of an EcoW.

Summary of risk on protected receptors with mitigation

Receptor	Risk without mitigation	Risk severity without mitigation	Zone	Mitigation	Risk severity with mitigation	Timing of mitigation
Retained habitats	Damage & destruction of RPAs	High	Red	Protective fencing with warning signs and industry standard protection measures	Negligible	All year round
Foraging mammals	Death/injury foraging and commuting mammals	High	Red	Precautionary method of works to avoid entrapment of foraging fauna.	Negligible	All year round



Risk Assessment of Potentially Damaging Construction Activities

Birds	Disturb/damage/destroy active nests and eggs/chicks	Moderate	Orange	Habitat clearance to be undertaken under the supervision of an ECoW if during nesting bird season.	Negligible	March to August inclusive
Reptiles	Death/injury	Moderate	Orange	Habitat clearance to be undertaken under the supervision of an ECoW during hibernation season (November to February).	Negligible	October to February
Bats	Disruption of commuting/foraging routes by lighting	Moderate	Orange	Sensitive lighting strategy targeted at retained trees and hedgerows, likely to be used by bats for foraging/commuting Retention of boundary habitats.	Negligible	All year round
Notable species	Death/injury to European hedgehog common invertebrates	Moderate	Orange	Method statement detailing vegetation clearance outside hibernation period or at other times after an ecologist has confirmed	Negligible	All year round



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Risk Assessment of Potentially Damaging Construction Activities

				absence individuals	of		
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Red Zones

- ★ Retained trees and hedgerows and to be protected by fencing (in the form of standard Heras fencing used for tree protection) signposted with appropriate biodiversity warning signs;
- ★ All retained features to be protected following BS5387:12 Trees in relation to design demolition and construction;
- ★ Industry standard pollution prevention measures;
- ★ Any vegetation to be removed should be done so to avoid the breeding bird season (March-August) and the hedgehog/reptile hibernation season (October-February) if this cannot be achieved, works will be immediately preceded (up to 48 hours prior) by a check by an ECoW for nesting birds or hibernating reptiles/hedgehogs. Any active nests or hibernating hedgehogs will be given a suitable buffer, with vegetation retained within the buffer until the chicks have fledged/hedgehogs have emerged from hibernation;
- ★ Site lighting will be avoided in the Red Zone.

Orange Zones

In addition to the above:

- ★ Precautionary measures during construction to protect foraging mammals on site:
 - Trenches will be covered at night, with scaffold planks left as a means of escape if trenches cannot be covered;
 - Chemicals will be stored in sealed compound (following COSHH guidance); and
 - Tool box talks to contractors to ensure ability to identify protected species such as reptiles and hedgehogs

In general:

- ★ Low speed limits will be enforced on construction vehicles within the site;
- ★ All trenches and excavations will be covered at night and as a precaution they should have a scaffold plank left in them as a ramp to allow mammals to escape should they fall in;
- ★ All chemicals will be stored on site in sealed compounds;
- ★ All equipment and fuels will be stored as far as reasonably possible from water bodies and habitat corridors; equipment will not be placed on potential hibernacula or mammal burrows; and
- ★ All protection fencing will be maintained throughout the construction period.



All method statements will be produced by the ECoW and approved by the onsite biodiversity champion. Method statements will be produced prior to construction activities and compliance logged and evidenced by the biodiversity champion.

Responsibilities

The overall responsibility for implementing this CEMP: Biodiversity will be by the principal contractor or third party that is suitably qualified to undertake the works.

A suitably qualified ecologist will perform an ECoW role during the entire construction period in order to ensure the delivery of the CEMP: Biodiversity. The ECoW will also perform an essential role in dealing with 'on the ground' and unforeseen issues and provide changes to this document and/or working practises (agreed consent from LPA may also be required). The ECoW will ensure contractors have the required onsite expertise and information to provide ecological briefing and/ or information so all construction staff are fully aware of their responsibilities on site.

The ECoW will provide ecological briefings and/ or information so all construction and maintenance staff are fully aware of their responsibilities on site. In summary the ECoW will:

- ★ Oversee activities within the Red and Orange Zones.
- ★ Supervise ecological method statement and document (for e.g., CEMP: Biodiversity) compliance and report any non-conformities to the Construction Manager for rectification.
- ★ Provide specialist advice and/ or briefings (such as toolbox talks) to ensure all construction workers are aware of ecological constraints and responsibilities.
- ★ Provide specialist advice as necessary.
- ★ Resolve unforeseen 'on the ground' issues in liaison with the lead project manager and/ or make iterations to this document (agreed consent from LPA may also be required).
- ★ Undertake monthly site visits recording activities and observations submitted to the Construction Manager, if required.

The construction project team will comprise the Construction Site Manager and ECoW:

Proposed Team Member	Project	Specialism and Role	Experience Required
Construction Manager	Site	Oversees implementation of CEMP. Overall H&S responsibility	Construction site project management.
ECoW		Manages day to day delivery of CEMP within construction Phases. Undertaking provision of advice to contractors and carrying out	Experience of project management, organisation of surveys. Relevant protected species and habitats survey



specialist ecological surveys.

skills. Natural England
licensing experience.

Construction Standards

General Standards

All maintenance and management operations and materials should comply with relevant legislation for which details will be outlined within the Site Wide CEMP.

All works should be completed at an appropriate time of year and in accordance with relevant UK wildlife legislation.

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 Ecological Red and Orange Zones maps
- ★ Protected species method statements
- ★ Review of construction method statements especially adjacent Red Zones
- ★ Reporting hierarchy

Progress Report(s)

Where required the Construction Site Manager (in consultation with the ECoW) will produce a monthly report based on the record sheets, highlighting any issues raised during the programme. Works in future phases may not require monthly record sheets to be provided.

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 Ecology Project Manager, if required with Local Authority approval, prior to implementation.



Biodiversity Protection Zones



References

- ★ British Standards Institute (2013) Biodiversity – Code of Practice for Planning and Development. BS 42020:2013.
- ★ CIEEM (2017) Guidelines for Preliminary Ecological Appraisal, 2nd Edition. Chartered Institute of Ecological and Environmental Management, Winchester.
- ★ CIRIA (2015) Environmental good practice on site guide, 4th Edition. Construction Industry Research and Information Association, London.
- ★ Gent, A, H., Gibson, S, D., (2003) Herpetofauna Workers Manual, Joint Nature Conservation Committee. Peterborough.
- ★ Griffiths, R.A., Raper, S.J., Brady, L.D. (1996). Evaluation of a standard method for surveying common frogs *Rana temporaria* and newts *Triturus cristatus*, *T. helveticus* and *T. vulgaris*. JNCC Report no. 259. Joint Nature Conservation Committee, Peterborough.



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