



## ***Cradlebridge Farm, Street***

**Construction and Environmental Management Plan**

**Prepared for: David & Audrey Marsden**

**Date: March 2022**

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### **Limitations**

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The conclusions and recommendations contained in this Report are based upon information provided by others and upon the assumption that all relevant information has been provided by those parties from whom it has been requested and that such information is accurate.

The methodology adopted and the sources of information used by Nash Ecology Ltd in providing its services are outlined in this Report. The work described in this Report was undertaken between June and August 2021 and is based on the conditions encountered and the information available during the said period of time.

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TABLE OF CONTENTS	1	INTRODUCTION .....	2
	1.1	Background and Scope .....	2
	2	RISK ASSESSMENT .....	3
	3	BIODIVERSITY PROTECTION ZONES .....	4
	4	PROPOSED MITIGATION.....	6
	4.1	Bats .....	6
	4.2	Otter .....	7
	4.3	Birds.....	7
	4.4	Herpetofauna.....	7
	4.5	Trees .....	7
	4.4	Other.....	7
	5	ECOLOGIST INPUT .....	9
	6	ECOLOGIST CONTACT DETAILS .....	10

## 1 INTRODUCTION

### 1.1 Background and Scope

Nash Ecology Ltd was instructed to prepare a Construction and Environmental Management Plan (CEMP) for the project at 'Cradlebridge Farm, Hulkmoor Drove, Street, Somerset'. The CEMP relates to the proposed replacement of the existing building (which is suffering from subsidence) with a new residential dwelling (planning reference: 2021/1799/FUL). Several pre-commencement conditions were attached to the permission, which included the following:

**Condition 5: Construction Environmental Management Plan (Pre-commencement)**

*"No development shall take place (including demolition, ground works, vegetation clearance) until a construction environmental management plan (CEMP: Biodiversity) has been submitted to and approved in writing by the Local Planning Authority. The CEMP (Biodiversity) shall include the following:*

- *Risk assessment of potentially damaging construction activities.*
- *Identification of "biodiversity protection zones".*
- *Practical measures (both physical measures and sensitive working practices) to avoid or reduce impacts during construction (may be provided as a set of method statements), including nesting birds habitat clearance measures (which should timing of clearance), badger precautionary measures, hedgehog precautionary measures, amphibian & reptile precautionary measures, otter precautionary measures, water pollution prevention measures detailed in a Risk Avoidance Measures Method Statement, tree protection measures, precautionary measures for bats etc.*
- *The location and timing of sensitive works to avoid harm to biodiversity features.*
- *The times during construction when specialist ecologists need to be present on site to oversee works.*
- *Responsible persons, lines of communication and written notifications of operations to the Local Planning Authority*
- *The role and responsibilities on site of an ecological clerk of works (ECOW) or similarly competent person;*
- *Use of protective fences, exclusion barriers and warning signs.*
- *Ongoing monitoring, including compliance checks by a competent person(s) during construction and immediately post-completion of construction works*

*The approved CEMP shall be adhered to and implemented throughout the construction period strictly in accordance with the approved details, unless otherwise agreed in writing by the Local Planning Authority.*

*Reason: In the interests of European and UK protected species. UK priority species and habitats listed on s41 of the Natural Environment and Rural Communities Act 2006 and in accordance with DP5 and DP6 of the Mendip District Local Plan Part 1: Strategy & Policies 2006-2029 (Adopted 2014)."*

The remainder of this document provides the required CEMP.

## 2 RISK ASSESSMENT

The proposed development at Cradlebridge Farm will comprise the following activities, which could affect biodiversity:

- The creation of a new, purpose-built bat loft in a barn;
- The demolition of the main house and construction of a replacement (with a slightly smaller footprint);
- Minor relandscaping of the gardens around the house; and
- Occupation of the new dwelling.

A recent bat survey of Cradlebridge Farm (Nash Ecology, 2021a and 2021b) identified the presence of serotine, brown long-eared bat, soprano pipistrelle and whiskered bat day roosts. In the absence of mitigation, the proposed demolition of the house at Cradlebridge Farm would result in the permanent loss of all four bat roosts along with any associated access points. The works could also harm and/or disturb a small number of bats ( $\leq 8$ ).

The demolition of the existing building and the erection of its replacement will require the use of heavy plant (such as excavators) and chemicals / building materials (diesel, oil / lubricants, cement *etc.*). Given the close proximity of a network of rhynes (northern and western boundaries), there is a risk of pollution events occurring. Included within this is the risk of dust deposition on both the ditch and bankside vegetation.

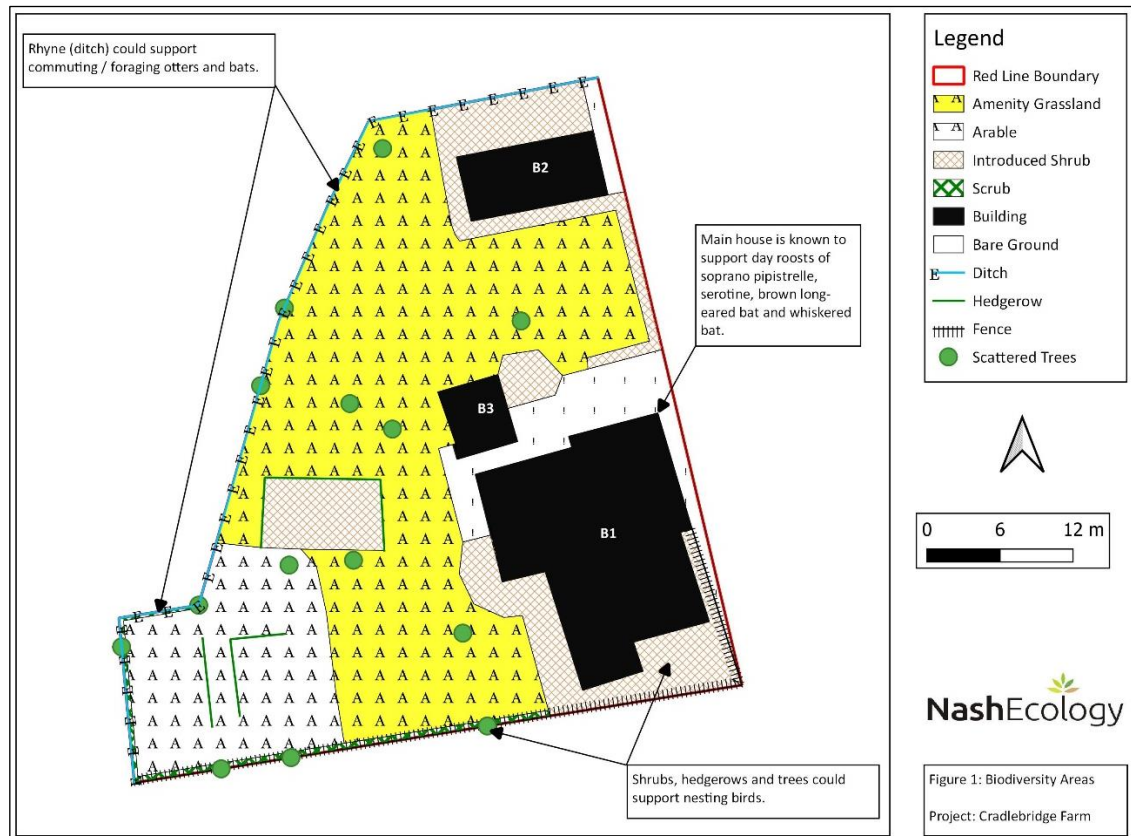
The minor relandscaping of the garden would result in the removal of ornamental shrubs, which could support nesting birds; it is understood that no trees or hedgerows will be felled / cleared to facilitate the new dwelling. If these shrubs are removed between March and August, nesting birds (and/or their dependent young i.e. eggs or fledgling) could be harmed.

Night-time working and the occupation of the new dwelling could result in increased light spill on the habitats surrounding the Site. Recent bat surveys detected a high level of foraging activity along the ditch (including photophobic species). The rhynes could also be used by otters. Any increases in illumination could deter bats and/or otters from the area.

### 3 BIODIVERSITY PROTECTION ZONES

Figure 1 depicts the areas of relative importance within the Zone of Influence.

**Figure 1: Biodiversity Areas**

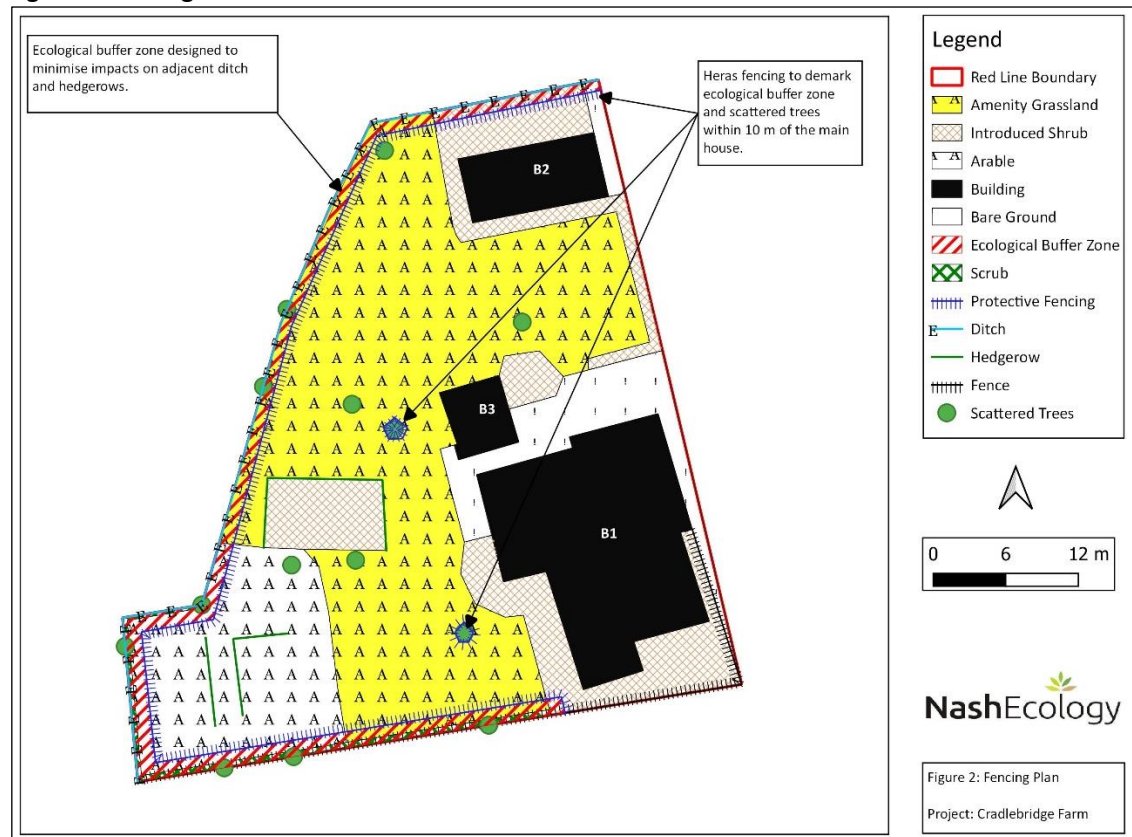


The main house (B1, Figure 1) will be demolished to make room for the replacement building. Both of the other buildings are being retained. All of the trees and hedgerows will also be retained. An area of ornamental planting will be cleared.

To protect the most sensitive ecological features (hedgerow and rhyne), an ecology buffer zone will be instigated within which construction activities will be excluded (see Figure 2). This buffer would extend along most of the southern boundary and all of the western and northern boundaries; the buffer zone would extend a minimum of 3 m from the rhyne / hedgerow to ensure that there will be no impacts on either feature. The buffer would be demarked by heras fencing.

Root protection measures (BS:5837) will be implemented on any trees outside of the ecological buffer but within 10 m of the main house (and thus the construction works). The root protection areas, like the ecological buffers, would be demarked by heras fencing.

**Figure 2: Fencing Plan**



## 4 PROPOSED MITIGATION

### 4.1 Bats

A European Protected Species Mitigation Licence (EPSML) has been secured from Natural England to permit the demolition of the main house (2022-60160-EPS-MIT; appended to this CEMP). As part of the application for the EPSML, a Method Statement was submitted to Natural England. This Method Statement outlined a programme of mitigation to ensure that the proposed works would not adversely affect the favourable conservation status of the affected bats. A summary of this mitigation is provided below.

#### *Pre-construction*

- A woodcrete bat box would be installed on a mature tree away from the proposed works;
- As the replacement house will be smaller and will not have an attic space, a compensatory roost would be provided within an adjacent Barn (currently assessed as having Negligible BRP). A section of a Barn's existing loft space, measuring 13.0 m x 6.5 m x 2.0 m (existing height of the roof) would be sealed off (using stud walls where necessary) as the bat roost;
- New access points would be installed in the compensatory roost comprising bespoke roof tiles and gaps created behind the existing weather boards. The weather boards would also be modified to enable bats to roost behind them (i.e. external roost location);
- Strictly no BRM would be installed;
- The loft space would be fitted with a lockable loft hatch to enable inspection and maintenance; and
- The loft would be seeded using droppings collected from the existing loft space.

#### *Exclusion*

- The roof (both tiles and felt), soffit boxes and all weather boards would be removed under the supervision of the named ecologist (i.e. soft demolition). Tiles and boards would be carefully lifted, turned and inspected. Any bats encountered would be carefully collected by the named ecologist (by hand) and placed in the compensatory bat roost or bat box.

#### *Demolition and Construction*

- Once clear of bats, the existing residential property would be demolished and a replacement erected.

#### *Monitoring*

- Monitoring would comprise a single inspection of the compensatory roost in 2024. A report detailing the results of the monitoring would be submitted to Natural England.

Condition 10 requires that "no external or internal lighting shall be installed without full details of the proposed lighting design being first submitted to and approved in writing by the Local Planning Authority". As such a lighting strategy will be prepared and submitted to the LPA. From an ecological perspective, a sensitive approach to lighting is recommended. The sensitive lighting strategy will comprise the following broad elements (BCT, 2018):



- No excessive lighting - use only the minimum amount required for safety;
- No night-time working or construction-related lighting;
- Minimise light spill – use short columns and direct light downwards and in towards the Site and away from the river;
- Use narrow spectrum bulbs that emit minimal ultra-violet light - avoid white and blue wavelengths of the spectrum, which can attract invertebrates;
- Lights will either peak higher than 550 nm or use glass lantern covers to filter UV light;
- Avoid using reflective surfaces under lights; and
- Minimise the amount of light spill from within the new building by good design.

#### 4.2 Otter

No works to or near the rhyne are expected (as a result of the ecological buffer). No night-time working will be undertaken. Standard pollution prevention and dust suppression measures will be implemented to prevent indirect effects on the rhyne.

#### 4.3 Birds

All vegetation clearance works will be timed to occur outside of the bird nesting season (i.e. it will be carried out between September and early March). If this is not possible, the vegetation will be checked by an ecologist immediately prior to clearance. Where a bird nest is discovered, a 10 m buffer would be erected around the nest using red and white hazard tape attached to stakes. No works would take place within the buffer zone until the young have fully fledged.

#### 4.4 Herpetofauna

Rubble created through demolition activities will be stored either in skips or on plastic sheets with the edges turned up to prevent ingress by animals. The tracks of heavy plant will be checked for amphibians and reptiles each morning prior to vehicle movements. Standard pollution prevention and dust suppression measures will be implemented to prevent indirect effects on the rhyne.

#### 4.5 Trees

Tree Root Protection Areas (TRPA) will be demarked and protected using fencing as per Figure 2 (only trees outside of ecological buffer zone and within 10 m of the main house). The fences would be subject to regular (daily) checks to ensure that they are fit for purpose by the Site Management.

#### 4.4 Other

- All contractors will receive a toolbox talk ahead of any works on Site by a suitably qualified ecologist;
- Any trenches left open overnight will be fitted with a means of escape (such as a plank of wood) to ensure that animals do not become trapped;
- Standard dust suppression measures will be implemented where necessary; and

- Standard pollution control measures would also be instigated. This will include a stipulation for plant and equipment refuelling to be undertaken away from the watercourse and within a water-tight bund. Spill kits will be kept on Site.

## 5 ECOLOGIST INPUT

The input of an ecologist would be required for the following stages:

- The implementation of the EPSML;
- Toolbox talk to contractors ahead of proposed demolition and construction works;
- Soft demolition of the main house and, in particular, the removal of the roof tiles and soffit boxes;
- Inspection of any vegetation cleared during the nesting season; and
- Inspection of the completed bat mitigation works.

**6 ECOLOGIST CONTACT DETAILS**

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