

A large background image showing a vibrant green field of grass. The foreground is in sharp focus, showing individual blades of grass. The background is blurred, creating a bokeh effect with soft, out-of-focus light spots in shades of green and yellow, suggesting sunlight filtering through the foliage.

# WEST BRADLEY HOUSE, SOMERSET

## Construction Ecological Management Plan

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## 1. INTRODUCTION

1.1. This document describes and illustrates the measures that need to be adopted to ensure that no wildlife is harmed during the implementation of plans to renovate West Bradley House and gardens (the site and its features are illustrated in **Figure 1**).

1.2. The document is structured according to the format set out in Section 10 of the British Standard *BS42020:2013 Biodiversity – Code of practice for planning and development*.

*“Prior to the commencement of development a Construction Environmental Management Plan (CEMP: Biodiversity) shall be submitted to and approved in writing by the LPA. The CEMP (Biodiversity) shall include the following:*

- a) Risk assessment of potentially damaging construction activities*
- b) Identification of “biodiversity protection zones”*
- c) Measures to avoid or reduce impacts during construction*
- d) Measures to control and eradicate invasive species*
- e) Location and timings of sensitive works to avoid harm to biodiversity features, including nesting birds*
- f) The times during construction when specialist ecologists need to be present on site to oversee works*
- g) Responsible persons and lines of communication*
- h) Use of protective fences, exclusions barriers and warning signs*

1.3. The content of this document is informed by ecological surveys of the site carried out in 2022 and 2023.

Figure 1, "Pre-construction Site Plan"



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**a) Risk assessment of potentially damaging construction activities**

**Table 1, "Risk assessment of potentially damaging construction activities"**

Activity	Description of Risk
Site Clearance	There is no requirement for site clearance ahead of site setup – the site is accessible from existing roads and tracks, and the construction works compound will be located on existing hard standing. Vegetation clearance will proceed once site setup is completed and biodiversity protection zones have been set out. Remaining risks associated with vegetation clearance are dealt with in the row concerning ground works.
Site Setup	Ecological features may be at risk of physical damage or disturbance from the movement of materials, plant and machinery between the site access and the site compound.
Ground Works	Ecological features may be at risk of disturbance, killing, injury or physical damage or pollution (e.g. siltation and runoff) during: <ul style="list-style-type: none"> <li>• Removing and relocating the tennis court</li> <li>• Removal of unwanted areas of hard standing</li> <li>• Construction of the new access track</li> </ul>
Demolition	Ecological features may be at risk of disturbance, killing, injury or physical damage during: <ul style="list-style-type: none"> <li>• Demolition of outbuildings</li> <li>• Removal of roof from main house</li> </ul>
Construction	Ecological features may be at risk of disturbance, killing, injury or physical damage or pollution (e.g. siltation and runoff) during: <ul style="list-style-type: none"> <li>• Construction of new buildings adjacent to Bradley Brook</li> <li>• Construction of new tennis court, tracks / roads and parking areas</li> </ul>
Environmental Incidents	The Bradley Brook and the ponds are at risk from pollution e.g., through fuel or oil spills or through runoff of stored materials including topsoil

**b) Identification of “biodiversity protection zones”**

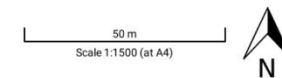
- 1.4. Biodiversity protection zones are illustrated in **Figure 2**. The protection zones will be set out on site with the guidance of an Ecologist to define their precise location and extent. The figure illustrates biodiversity protection zones, excluding Root Protection Zones (RPZ) – the two will overlap and be combined in places.
- 1.5. In areas of higher risk, protective fencing will match tree protection fencing (i.e. reinforced Heras panels or similar). In areas of lower risk fencing will be a visual marker rather than strict physical protection. These areas of risk will be agreed on site with the Ecologist.



Figure 2, "Biodiversity Protection Zones"



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**c) Measures to avoid or reduce impacts during construction**

- 1.6. Using the Risk Assessment in **Table 1**, the measures to avoid or reduce impacts during construction are summarised in **Table 2** and described in the following sections.

**Table 2, "Measures to Control Risk During Construction"**

Ecological Feature at Risk	Control Measures
Bradley Brook Habitats (trees and vegetation on the banks, river channel physical features, dead wood on banks and in channel etc.)	<ul style="list-style-type: none"> <li>• Setting out of biodiversity protection zones and root protection zones</li> <li>• Pollution prevention</li> <li>• Ecological Clerk of Works provides Toolbox Talk to contractors</li> <li>• Ecological Clerk of Works in attendance for all invasive works within or adjacent to biodiversity protection zones</li> <li>• No task lighting to illuminate stream corridor</li> </ul>
Badgers	<ul style="list-style-type: none"> <li>• Badger verification survey prior to site setup</li> <li>• Setting out of biodiversity protection zones and root protection zones</li> <li>• Ecological Clerk of Works provides Toolbox Talk to contractors</li> <li>• Ecological Clerk of Works in attendance for all invasive works within or adjacent to biodiversity protection zones</li> <li>• Temporary exclusion of badgers from the sett, or sensitive construction methods</li> </ul>
Bat roosts	<ul style="list-style-type: none"> <li>• Exclusion of bats prior to commencement of demolition / construction</li> </ul>
Amphibians and Reptiles	<ul style="list-style-type: none"> <li>• Setting out of biodiversity protection zones and root protection zones</li> <li>• Phased vegetation clearance overseen by an Ecological Clerk of Works prior to groundworks, demolition or construction</li> </ul>
Nesting birds	<ul style="list-style-type: none"> <li>• Avoiding vegetation clearance and demolition during nesting season</li> <li>• If vegetation clearance or demolition is needed during the nesting season, an Ecologist will survey for nesting birds no more than 24hours prior to commencement in that area</li> </ul>
Fish	<ul style="list-style-type: none"> <li>• Setting out of biodiversity protection zones and root protection zones</li> <li>• Pollution prevention</li> <li>• Ecological Clerk of Works provides Toolbox Talk to contractors</li> <li>• Ecological Clerk of Works in attendance for all invasive works within or adjacent to Bradley Brook</li> </ul>
Otters and Water Voles	<ul style="list-style-type: none"> <li>• Verification survey prior to site setup</li> <li>• Setting out of biodiversity protection zones and root protection zones</li> <li>• Pollution prevention</li> <li>• Ecological Clerk of Works provides Toolbox Talk to contractors</li> <li>• Ecological Clerk of Works in attendance for all invasive works within or adjacent to Bradley Brook</li> </ul>

### ***Pollution Prevention***

1.7. Pollution prevention measures will include:

- No working in the channel and no disturbance of the stream bed
- Minimise vegetation removal to prevent soil erosion;
- No stockpiling of materials where they could be washed into the channel;
- No fuelling or storage of chemicals near the brook; and keeping all such materials on impermeable ground in an area where any spills cannot be washed into the brook;
- Keeping adequate spill kits on site to deal with accidental spillages
- Siting concrete or cement mixing and washing areas at least 10m away from the brook, in an area where runoff would not reach the brook;
- Using contained or bunded areas for washing out kit;

### ***Toolbox Talk***

1.8. The Ecological Clerk of Works (ECoW) will provide site staff with a toolbox talk to explain the need for biodiversity protection measures and what they involve. The toolbox talk will cover:

- Describing the wildlife that the site supports and the protections it is afforded
- Explaining the location of ecological features at risk of harm
- Any restrictions on timing of works
- The location and purpose of biodiversity protection zones
- When to ask for further guidance or assistance from the ECoW
- The measures for the protection of biodiversity that will be implemented
- Roles, responsibilities and lines of communication

1.9. The ECoW will provide a copy of the biodiversity protection zones plan and their contact details, to be displayed in the construction compound.

### ***Vegetation Clearance to Protect Reptiles and Amphibians***

1.10. Vegetation clearance and topsoil scraping will take place during periods of fine and warm weather (above 10°C with little rain) and will be undertaken in a sensitive and phased manner (with a period of 48 hours between phases), to make habitats less suitable for reptiles and encourage independent movement away or to installed refugia where they can be captured and translocated to the receptor site:

- Phase 1 - Cut rough grassland, scrub and other tall vegetation to a height of c. 15 cm and remove arisings;
- Phase 2 - Cut vegetation to ground level and remove arisings; and
- Phase 3 - Soil scrape.

1.11. Dismantling of suitable refugia within or adjacent to the construction area (such as rubble or debris piles) will avoid the gravid period (May to July) and will be supervised by a suitably qualified ecologist. Any individuals found during this exercise will be removed to a safe location elsewhere on the property.

1.12. After soil scraping, the area will be maintained as bare earth until construction begins, to minimise the likelihood of vegetation recolonising the area and providing new habitat for amphibians and reptiles.

#### ***Avoiding Harm to Bats During Construction***

1.13. The optimum period for carrying out demolition and alterations to the buildings on site and main house roof, affecting the bat roosts, would be 1st September – 1st May. The alterations on the main house roof and demolition of the Little Stone Barn could be undertaken prior to the construction of the mitigation roost.

1.14. There is a requirement for construction of the mitigation hibernation roost in advance of removal of any hibernation roost features in the Apple Barn.

1.15. Pre-construction roost inspections would be undertaken to confirm absence of roosting bats and sensitive works would be supervised by a licenced bat ecologist. This would be set out in the Natural England Licence Method Statement.

#### **d) Measures to control and eradicate invasive species**

1.16. Himalayan balsam (*Impatiens glandulifera*) is an invasive, non-native, species listed on Schedule 9 of *The Wildlife and Countryside Act 1981* (as amended). This makes it an offence to cause this species to grow in the wild.

- 1.17. Prior to the commencement of construction, a verification survey will be completed by a suitably qualified ecologist. If any Himalayan balsam (or other such species) is found it will be controlled by hand pulling or mechanical means to remove the plants and the roots. Plant material will either be removed from site immediately and disposed of in accordance with all applicable guidelines and legislation, or if it is to be stored on site it will be stored at least 20m away from the brook and ponds in such a manner that there is no risk of spreading it further (e.g. contained within secured containers or structures).
- 1.18. Topsoil where Himalayan balsam has grown will not be moved or used around the site or taken off site.
- 1.19. Additional measures to ensure this species is not spread further during construction will comprise:
- A pre-construction survey to re-confirm the locations of this species
  - A Toolbox Talk provided by an ECOW to the relevant contractors

**e) Location and timings of sensitive works to avoid harm to biodiversity features, including nesting birds**

- 1.20. Any vegetation or structures where birds could nest will only be removed outside of the bird nesting season.
- 1.21. Where this is not possible, an ecologist will check the area for birds' nests by undertaking a manual inspection and watching the area for bird activity early in the morning. If any active nests are identified they will be left undisturbed until the young have fledged or the nesting attempt is completed.



#### **f) The times during construction when specialised ecologists need to be present on site to oversee works**

1.22. The ECoW will need to be present for the following:

- Pre-construction surveys:
  - Badger survey (approximately four weeks of construction commencing and again 24 hours before commencement)
  - Verification survey of Bradley Brook to search for signs of otters and water voles
  - Invasive plant species survey completed at a suitable time of year
- Prior to works, for inspection of erected biodiversity protection zone fencing
- Any invasive works within or adjacent to biodiversity protection zones
- During the exclusion of bats from their roosts
- At outset of works, to provide a toolbox talk
- Monitoring as required by the bat licence

#### **g) Responsible persons and lines of communication**

1.23. The owners of the property are responsible for ensuring that this CEMP is provided to the relevant parties. They will take reasonable steps to ensure that the CEMP is implemented and that any non-conformances are addressed in a proportionate and timely manner.

1.24. The Principal Contractor (PC) is responsible for implementation of the CEMP on site. They will appoint a Site Manager, who will ensure the CEMP is communicated to and understood by the relevant parties via suitable briefings / inductions, and by making the information available to site staff as appropriate.

1.25. An Ecological Clerk of Works (ECOW) will be responsible for providing advice to the operator and to the PC. The ECOW will be appointed prior to commencement of construction. The ECOW will be familiar with the site and will have relevant experience with the species concerned, with experience of working on construction sites.

1.26. The ECOW's primary role will be to provide guidance on the implementation of the CEMP to the site contractors, and to feed back to the operator on performance.

#### **h) Use of protective fences, exclusion barriers and warning signs**

1.27. In addition to the biodiversity protection zones set out above, tree and hedgerow protection fencing will be installed as required in accordance with the Arboricultural Impact Assessment.

