

Badger

- 7.1.2 No evidence of Badger was found at the Site or within 30m of the Site. It is therefore considered that the Proposed Development is likely to have **no important negative effect** on Badgers.

Bats

- 7.1.3 The desk study identified several different species of bat using the area within 5km of the Site. The Extended Phase 1 Habitat Survey did not identify any features which are suitable for use by Bats at the Site. There will therefore be **no important negative effect** on bats as a result of the Proposed Development.

Breeding Birds

- 7.1.4 The vegetation at the Site is largely unsuitable for Breeding Birds, though the grassland has limited suitability to support ground nesting birds in more unmanaged areas; therefore the loss of the vegetation at the Site is considered to have **a minor negative effect of negligible importance** on breeding birds.
- 7.1.5 See Section 7.1.7 below, for recommendations to avoid or minimise potential adverse effects on Breeding Birds.

Great Crested Newts

- 7.1.6 No records of Great Crested Newts were provided by the NBN Gateway (NBN, 2014) and the habitats at the Site are of low suitability for Great Crested Newts; therefore, the loss of the vegetation at the Site is considered to have **no important negative effect** on Great Crested Newts.

Reptiles

- 7.1.7 No records of reptiles were provided by the NBN Gateway (NBN, 2014) and the habitats at the Site are of limited to low suitability for reptiles; therefore, the loss of the vegetation and dry stone wall at the Site is considered to have **no important negative effect** on reptiles.

Terrestrial Invertebrates

- 7.1.8 The habitats at the Site have limited to moderate suitability to support terrestrial invertebrates. However, taking into consideration that dry stone walls of a similar or better condition are present throughout the landscape, it is considered that the loss of vegetation and the dry stone wall (if not retained) at the Site will have **a minor negative effect of negligible importance** on invertebrates.
- 7.1.9 See Sections 8.2.5 and 8.2.6 below, for recommendations to avoid or minimise potential adverse effects on Terrestrial Invertebrates.

8 CONCLUSIONS AND RECOMMENDATIONS

8.1 HABITATS AND FLORA

- 8.1.1 The Site offers very little in the way of floral species diversity and the flora present within the habitats at the Site is typical of what would be expected within those habitats. As such, it is concluded that **the Site does not require any further surveys for its botanical interest.**

8.2 FAUNA

Bats

- 8.2.1 In light of the assessment of effects; **no further surveys are considered to be required for bats.** However, any lighting that is installed within the new development should be directed away from any retained or new trees or shrubs. Lighting should also be kept to the minimum that is necessary for health and safety purposes as recommended in the best practice guidance for maintaining habitat potential (Bat Conservation Trust , 2009).

Breeding Birds

- 8.2.2 To reduce any impact upon breeding birds, avoid any breach in wildlife legislation and maintain the local breeding populations, **any vegetation should be removed outside the bird breeding season** (March-September inclusive for most species). If this is not possible then vegetation should be checked by a suitably qualified ecologist prior to removal.

Great Crested Newts

- 8.2.3 In light of the aforementioned impacts and relative effects; **no further surveys are considered to be required for Great Crested Newts.**

Reptiles

- 8.2.4 In light of the aforementioned impacts and relative effects; **no further surveys are considered to be required for Reptiles.**

Terrestrial Invertebrates

- 8.2.5 In light of the aforementioned impacts and relative effects; **no further surveys are considered to be required for terrestrial invertebrates.**
- 8.2.6 The main habitat of interest at the Site for terrestrial invertebrates is the dry stone wall. Retention and where possible, enhancement of this feature would benefit invertebrates if this was to be included as part of a landscaping scheme (see section 9.1.1).

Overall Assessment of Effects

- 8.2.7 Providing the recommendations are adhered to and providing that any subsequent surveys do not reveal likely adverse effects on protected species, it is considered that there would be **no important adverse effect** from the Proposed Development on fauna and habitats.
- 8.2.8 If protected species are found to be present within the Site during construction of the Proposed Development, then appropriate surveys, mitigation and compensation measures should be devised and implemented prior to any construction work taking place; including the production of European Protected Species licences for submission to Natural England if applicable.

8.3 COMPLIANCE WITH POLICY

- 8.3.1 The Site does not contain and will not have any adverse effect on any sites, species or features of local, national or international biodiversity value. The Proposed Development is therefore considered to be compliant with Policy L2 of the Peak District National Park Authority's Local Development Framework Core Strategy Development Plan (Peak District National Park Authority, 2011).

9 POTENTIAL ENHANCEMENTS FOR BIODIVERSITY

9.1 GENERAL POINTS FOR CONSIDERATION

- 9.1.1 When designing the landscaping scheme, the landscape architect, architect or engineer detailing the scheme could liaise with an ecologist at the detailed design stage in order to maximise the potential for biodiversity during the scheme.

9.2 FAUNA

BAT BOXES

- 9.2.1 Bat boxes could be incorporated into the design scheme as this will provide additional roosting opportunities for bats. These are attached to the external walls, but if included, should be sited on the Proposed Development buildings according to best practice (situated approximately 5-7m from the ground (Gunnell, et al., 2012)); a minimum of three bat boxes would be suitable for this development. Please see Plate 7 and Plate 8 below for examples of suitable bat boxes.

Plate 7 **Kent Bat Box (multi-chamber) (NHBS, n.d(a))**



Plate 8 **1FF Schwegler Bat Box (NHBS, n.d(b))**



NEST BOXES FOR BIRDS

- 9.2.2 The siting of bird boxes on the proposed building would provide nesting habitat for birds at the Site; if these are to be included at the Site, they should be sited according to best practice.
- 9.2.3 The boxes could be specific to either House Sparrows (*Passer domesticus*), Starlings (*Sturnus vulgaris*), House Martins (*Delichon urbica*) or Swifts (*Apus apus*) as these species will readily use bird boxes placed high up under the eaves and should preferably be northeast-facing; all of these species nest in loose colonies, so two or three boxes can be sited evenly distributed on the same side of the house (RSPB, 2006). See Plate 9 to Plate 13 below for examples of suitable bird boxes for these species.
- 9.2.4 Nest boxes for House Martins and Swifts can result in an accumulation of droppings beneath the boxes; therefore it is recommended that the boxes are not placed above windows or access points. If the accumulation of droppings becomes an issue, then a droppings board (see Plate 14) can be installed beneath the box which collects the droppings. This will require cleaning once the birds have left the boxes.

Plate 9 ***House Sparrow Terrace Nest Box (NHBS, n.d(c))***



Plate 10 ***Triple Sparrow House (NHBS, n.d(d))***



Plate 11 ***Starling Single Nest Box (NHBS, n.d(e))***



Plate 12 **Swift Nest Box (NHBS, n.d(f))**



Plate 13 **House Martin Nest Box (NHBS, n.d(g))**



Plate 14 **Droppings Board (NHBS, n.d(h))**



Bird Box Maintenance

- 9.2.5 The RSPB (RSPB, 2014) state that bird boxes should be cleaned from September onwards **once birds have stopped using the bird boxes**. Any nesting material and unhatched eggs (which can only legally be removed between August and January) should be removed and disposed of. The bird boxes should then be cleaned with either boiling water or steam (no insecticides or flea powders should be used).

9.3 HABITATS

- 9.3.1 The Dry Stone Wall at the Site could be retained and enhanced by being rebuilt in places where it has become derelict and including some small gaps where small mammals, birds etc. could take shelter. If the wall is to be retained it may be beneficial for biodiversity to widen the wall in order to provide further shelter from wind and rain; this, in combination with small gaps in the wall would make it more likely to be used by small mammals, birds etc.

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APPENDICES:

Appendix E1	Drawing CE-LK-0838-DW01 Extended Phase 1 Habitat Survey
Appendix E2	Statutory Site Citations and Further Information

Appendix E1: Drawing CE-LK-0838-DW01 - Phase 1 Habitat Survey