Preliminary Ecological Appraisal

Belle Vue House
Belle Vue Road
Duryard Valley
Exeter
Devon
EX4 5BP

Planning Reference:		**Report Reference:**	171205 rev00
Client:	Mr. Daniel Currey		
Architect/Agent:	Squirrel Design		
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SECTION 1 SUMMARY

1.1 Introduction

It is understood that it is proposed to demolish the current dwelling, stable and associated outbuilding, to allow subsequent development of a replacement dwelling.

The survey area of Belle Vue consists of the dwelling with driveway and garden, outbuilding and stables. The remainder of the landholding includes sheep grazed paddocks and woodland (totalling 1.3 ha), which descend steeply to a small stream, bound by a combination of a stream, a hedgerow and hedgebanks.

1.2 Site Ecology

The site habitats are suitable to support:

- Amphibians – terrestrial habitat only;
- Badger – foraging & dispersal, and a badger sett located at the southwest corner of the site;
- Bats – potential bat roosting trees, general feeding and flight habitat for bat species & a whiskered bat roost in the loft of the dwelling;
- Birds – general habitat and nesting sites;
- Dormice – hedgebanks and hedgerow;
- Otter – stream and marginal vegetation; and,
- Reptiles – grassland, woodland edge etc.

Duryard Valley Park County Wildlife Site (CWS): Bell Vue House and the landholding are included within the Duryard Valley Park CWS. The CWS consists of four separate areas within the Duryard Valley, totalling 40 ha. The CWS includes unimproved and semi-improved neutral grasslands, hedges, scrub and woodland, in addition to the dwellings and associated gardens of Bell Vue Road.

1.3 Ecological Implications of the Proposal

The proposed development will remove approximately 0.25 ha of semi-improved grassland as part of the Duryard Valley Park CWS. However, this loss of semi-improved grassland is considered as a negligible impact to the CWS, due to:

- The limited species diversity of the semi-improved grassland;
- The proposal is not perceived to negatively impact upon the surrounding remaining areas of the CWS (39 ha); &

- The demolition and removal of the current dwelling, associated driveway, garden and outbuilding will allow this area previously developed extent of the CWS to be reverted to green space as grassland and/or woodland.

Demolition of the existing dwelling will destroy the identified whiskered bat roost within the dwelling loft space.

Removal of the scrub, trees and semi-improved grassland, will remove habitat for amphibians, reptiles, birds and bat species (in-flight feeding and/or dispersal habitat).

Construction and post-construction occupation of the site, and external lighting, could further negatively impact upon species using the site, retained boundary vegetation, woodland, site trees and areas beyond the site.

It is understood that it is proposed to plant 120 m of hedge, which will create habitat for amphibians, reptiles, birds, dormice (if present) and bats.

1.4 Recommendations

1.4.1 Roosting Bats

Dwelling

The demolition of the dwelling will destroy the identified whiskered bat roost and potentially cause disturbance and or injury to any roosting bats present at the time of the proposed works. It will therefore be necessary to apply and obtain a European Protected Species License (EPSL) from Natural England under the conservation (Natural Habitats, &c) (Amendments) 2017 Regulations, to legally allow the demolition of the dwelling.

In order to apply for the license, it will be required to successfully obtain full planning permission from the Local Planning Authority (LPA).

Mitigation and compensatory measures will need to be detailed within the EPSL application, including initial ecological supervision and the incorporation of at least five replacement inbuilt bat roosting provisions (see Appendix 2).

Tree Removal

Removal of a tree identified with 'low' bat roosting suitability will require precautions for the possible presence of bats (in accordance with BCT guidelines) and/or nesting birds, with removal being prior checked and supervised by suitability qualified ecological consultant and undertaken by a suitably qualified arboriculturist, including the following:

- Cracks and splits to be wedged to prevent closure prior to felling;
- Loose bark and/or ivy to be carefully peeled back to reveal the wood beneath and confirm no bats are present;
- Cavities must not be sawn through; sections that contain potential roost features must be "soft-felled" and roped carefully down to the ground;
- Cavity containing sections should be allowed to remain undisturbed on site for 24 hours following felling to allow any undiscovered bats (or other animals) to escape; and,
- Where possible, trees should be scheduled for felling during October/November, or February/March.

1.4.2 Semi-improved grassland

The semi-improved grassland should continue to be maintained with a short grassland sward prior to, and during, the period of construction. This is to discourage any establishment of amphibians or reptiles within the proposed development areas prior to the works.

1.4.3 Scrub

Precautionary measures must be prior undertaken to encourage amphibian and reptile species away from the scrub within the proposed working area.

This management should comprise of cutting the vegetation during the combined activity period for amphibians and reptiles, which is April to October inclusive, following confirmation that the scrub does not support any nesting birds (see Section 1.4.9 for further details).

The initial cut would require a following removal or harvest of the cuttings, with subsequent maintenance cuts undertaken to maintain a short sward up to and during the period of the development similarly to the semi-improved grassland (see Section 1.4.2).

1.4.4 Site Excavations

As a precautionary measure during the works, any excavations deeper than 1 m or large pipework, which are to remain open overnight, should be fenced or covered to prevent potential access to these areas by badger, otter, hedgehog etc., which could cause entrapment or injury.

1.4.5 External Lighting

No external lighting should be positioned to illuminate the sites boundary vegetation, the retained trees (specifically including those that have identified potential bat roosting features), woodland, semi-improved grassland and the replacement bat roosting provisions. This is to ensure artificial lighting does not impact/deter nocturnal species such as bats and dormice.

1.4.6 Tree & Hedgerow Protective Measures

The retained areas/lengths of woodland, scattered trees, northern boundary and an extent of the western and eastern boundaries, within proximality to the works, should be protected with tree protective measures during construction. This is to avoid direct damage to shrubs and trees, and/or compaction/disturbance of ground/tree root zones which could cause deterioration of individual trees, and for protection of the trees and hedge as potential habitat for bats, dormice, nesting birds, amphibians and reptiles.

1.4.7 Nesting Birds

Any vegetation removal/management and/or building works should ideally be timed to commence outside of the bird nesting season, which is generally considered to be between March to August inclusive, although depending upon the species, geographical area and the weather conditions, nesting can extend outside this period. Nesting is determined as being from when birds first initiate nest building up until the point when fledglings stop returning to the nest.

If works cannot be undertaken outside of the nesting season, a prior bird nesting check would be required, which should be undertaken by a suitably qualified ecologist. Subsequently if any active nest sites are identified these nests, and the immediately surrounding area, should remain undisturbed until all the young have fledged naturally.

1.4.8 Stream

The Environment Agency's Pollution Prevention Guidelines: Working at Construction & Demolition Sites PPG6 (2012) must be adhered to, ensuring no pollution incident

and/or water quality reduction is caused by the construction of the proposed development. The development design should seek to ensure that no pollution incident is likely to be caused through future use of the building.

1.4.9 Ecology Mitigation & Enhancement Measures

The National Planning Policy Framework (NPPF, March 2012) outlines the Government's commitment to minimise impacts on biodiversity and provide net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.

- New planting/landscaping should consist of native wildlife attracting species of local provenance, with appropriate aftercare and management to ensure that these areas are maintained. This would provide new habitat for invertebrates, amphibians, reptiles and birds;
- Two bird and two bee provisions should be incorporated into the proposed residential unit (see Appendices 3 & 4); and,
- Creation of at least two habitat piles, consisting of logs, brash &/or grass cuttings, within undisturbed areas of the site.

1.5 Compliance Monitoring

The development should include a pre-commencement site meeting and subsequent compliance monitoring visits, undertaken and recorded by a suitably qualified and pre-appointed ecologist.

Such visits would be required to confirm adherence to recommendations/constraints and implementation of ecological mitigation and enhancement recommendations.

1.6 Conclusion

The proposed development represents a negative ecological impact through habitat removal, disturbance of the Duryard Valley Park CWS and destruction of the identified bat roost within the dwelling.

Through implementation of ecology mitigation, compensation and enhancement measures the proposal would represent a neutral biodiversity impact.

Local Planning Authority Check List & Summary Biodiversity Budget

Habitat/Species/Feature	Impact	Specific further survey: required	Specific further survey: complete	Precautionary recommendations/avoidance, mitigation, compensation &/or enhancement	Biodiversity Budget Loss or gain
Inbuilt bird & bee provisions	N/A	N/A	N/A	To be incorporated upon site building. Two bird and two bee provisions to be included to provide a net gain in line with National Planning Policy Framework	Positive
Landscape planting	N/A	N/A	N/A	Native wooded/scrub vegetation planted in association with the east, west and south boundaries of the development area, creating habitat for amphibians, reptiles, birds, dormice and bats	Positive
Habitat piles	N/A	N/A	N/A	Creation of at least two open compost heaps/habitat piles, consisting of logs, brash &/or grass cuttings, within relatively undisturbed areas	Positive
Grassland – amphibians & reptiles	Potential to cause killing or injury of amphibians & reptiles	No	N/A	Maintain grassland with short sward to discourage any establishment of amphibians, reptiles or ground nesting birds	Neutral
Site excavations	Potential for any open excavations to cause entrapment and/or injury of species, such as badger	No	N/A	Any excavations deeper than 1 m or large pipework, which are to remain open overnight, should be fenced or covered to prevent potential access by wildlife species	Neutral
Retained trees, woodland & hedgerow	Potential to compromise trees and shrubs, & to disturb or injure associated species	No	N/A	Trees with bat roosting potential, woodland and boundary vegetation to be retained & protected with tree protective fencing	Neutral
External lighting – dormouse & bats (in flight)	Potential to discourage nocturnal activity for bat species and dormice	No	N/A	External lighting should be positioned and designed to avoid illuminating retained and new boundary vegetation, and any areas beyond the site	Neutral
Scrub removal – amphibians & reptiles	Potential to cause killing or injury of amphibians & reptiles	No	N/A	Prior management of the scrub during active period for reptiles and amphibians. Subsequent maintenance cuts required to maintain short vegetation height	Neutral

Habitat/Species/Feature	Impact	Specific further survey: required	Specific further survey: complete	Precautionary recommendations/avoidance, mitigation, compensation &/or enhancement	Biodiversity Budget Loss or gain
Nesting birds	Potential to disturb or damage active bird nests	No	N/A	Vegetation removal & building demolition to take care that no active bird nests are damaged or destroyed	Neutral
Duryard Valley Park CWS	Removal of a limited extent of the CWS (0.25 ha as 0.6% of CWS)	No	N/A	The demolition and removal of the current dwelling, associated driveway, garden and outbuilding will allow this previously developed extent of the CWS to be landscaped as grassland and/or woodland. This landscaping should be informed by a Landscape Ecological Management Plan (LEMP).	Minor negative
Tree removal	One tree within the development area with low suitability to support bat roosts	No	N/A	Removal of one tree identified with low bat roosting suitability will require precautions for the possible presence of bats (in accordance with BCT guidelines) and/or nesting birds, with removal being prior checked and supervised by suitability qualified ecological consultant and undertaken by a suitably qualified arboriculturist	Minor negative
Bat roost associated with the dwelling	Potential	Yes	No	EPSL required once planning permission is obtained At least five replacement bat roosting provisions required within external walls of replacement site building	Minor negative

For further reference see:

- Extended Phase 1 Habitat Survey – Appendix 5;
- Constraints Plan – Appendix 6;
- Mitigation & Opportunities Plan – Appendix 7.

SECTION 2 SURVEY OJECTIVES

It is understood that it is proposed to demolish the current dwelling, stable and associated outbuilding, to allow subsequent development of a replacement dwelling.

The preliminary ecological appraisal was undertaken to consider and assess the perceived ecological impacts associated with the proposal, including any perceived impacts to:

- Legally protected species or species of conservation concern;
- Legally protected habitats or habitat of conservation concern;
- Any statutory or non-statutory sites of conservation interest; and,
- Opportunities to provide biodiversity enhancement/s.

SECTION 3 SURVEY SITE DESCRIPTION

3.1 Site Introduction

Belle Vue House is located at the northern extent of the city of Exeter (see Figure 1). The property consists of an open expanse of grassland on a steep bank interspersed with trees and divided by a recently thinned area of woodland. The main dwelling is located at the north-western extent of the land holding, along with an associated garden, driveway, outbuilding/garage and stables.

The surrounding landscape is of mixed agriculture, predominantly dominated by hedgebank bound pasture fields, interspersed by woodland copses and small watercourses (see Figure 1).

3.1.1 Buildings

Dwelling

The main house consists of a cross pitched two storey dwelling with gable walls to the north, south and east (see Figures 2, 3 & 4). The roof has a covering of roofing tiles that are predominately underlined with bitumen roofing felt with a small section underlined with a breathable roofing membrane. The roof has a surround of uPVC soffit boxing. Internally the walls are constructed of a combination of brick and breezeblock, with external sections of stone cladding and render.

At the front of the house, there is a small porch with a flat felt roof. The walls of the porch are constructed of wood and glazing. Adjoining the western elevation includes a rear porch with glazed and wooden walls, and a glazed roof.

The southern elevation adjoins an elevated wooden deck. This in turn adjoins a brick lean-to with a roof covering of transparent corrugated plastic.

Outbuilding

A single storey outbuilding/garage is present to the east of the main dwelling (see Figure 5). The walls are constructed of a combination of corrugated metal, breezeblock and brick with external sections of stone cladding and render. The roof has a covering of corrugated fibreboard and corrugated plastic, which is in part underlined with wooden boarding.

Stables

The stable has wooden walls upon a brick plinth (see Figure 6). The roof is pitched and has a covering of corrugated fibreboard.

Figure 1. Belle Vue House landholding indicated with a red outline, with a green circle indicating the position of the existing dwelling.

Figure 2. The northern & eastern elevations of the dwelling

Figure 3. The southern & eastern elevations of the dwelling

Figure 4. The southern & western elevations of the dwelling, & adjoining lean-to & decking

Figure 5. The northern & western elevations of the outbuilding

Figure 6. The stables

SECTION 4 SURVEY METHODOLOGY

4.1 Preliminary Ecological Appraisal

4.1.1 Desk Study

An ecological desk study was undertaken for the proposed development area and its surroundings, comprising of ecological data obtained from:

- The Devon Biodiversity Records Centre (DBRC); &,
- The Devon Bat Group (DBG).

A standard search area consisting of a 1 km radius of the site from a central grid reference was requested from DBRC and DBG. Details of statutory and non-statutory sites designated for nature conservation or interest, together with records pertaining to protected species and habitats and/or species and habitats of conservation concern were obtained.

4.1.2 Field Survey

The field survey comprises of a walkover assessment of the site using Phase 1 Habitat Survey methodology (JNCC, 1993 as amended by IEA, 1995). This is a standard technique for classifying and mapping British habitats.

The site survey was undertaken on the 20th February 2018 by Luke Gibbons and Hannah Willis. All areas within the site were surveyed and assessed for indicators of ecological value, including the presence or signs of any protected or rare habitats and species.

4.1.3 Building Inspection

The surveys undertaken on the 20th February 2018 by Luke Gibbons and Hannah Willis, comprised of internal and external inspection, conducted with the aid of head and hand-held torches, an endoscope, close-range binoculars, an extendable ladder and a digital camera.

The aim of the survey was to assess levels of use by bats through the presence of actual animals or their field signs, such as droppings, insect prey remains and/or urine staining, and the potential suitability of the building for roosting.

The presence of other protected species, notably nesting birds and barn owl/s, was also investigated, including the presence and behaviour of any actual animals or their field signs, such as whitewash, pellets and or nest debris.

SECTION 5 SURVEY RESULTS

5.1 Desk Study

The information provided by DBRC identified one statutory sites designed for wildlife interest within 1 km of the site, consisting of Stoke Woods Special Site of Scientific Interest (SSSI) located 500 m to the northeast of the site consisting of ancient broadleaved woodland.

5.1.1 Non-statutory Designated Sites

The information provided by DBRC identified nine non-statutory sites designed for wildlife interest within 1 km of the site, consisting of:

- Duryard Valley Park County Wildlife Site (CWS), which comprises of large area of the Duryard Valley, including the western half of the Bell Vue House landholding, including the dwelling, outbuilding and stable, and the proposed position of the new dwelling. The CWS is designated as unimproved and semi-improved neutral grassland, hedges, scrub and woodland;
- Wreford's Lane Orchard Unconfirmed Wildlife Site (UWS), located 20m to the northeast of the site, consisting of an orchard;
- Belvidere Meadows Local Nature Reserve (LNR), located 200m to the south of the site, consisting of rich wildlife grassland, semi-rich wildlife grassland, woodland and scrub.
- Number 21 Argyll Road Other Site of Wildlife Interest (OSWI), located 250m to the southeast of the site, consisting of a garden which once supported unimproved grassland. In 2009 only a small amount remained. It is understood that wildflower seed mixes have been sown and the area landscaped;
- Barton Place OSWI, located 400m to the northwest of the site, consisting of semi-improved neutral grassland;
- Barton Place Wood OSWI, located 400m to the north of the site, consisting of mixed plantation woodland;
- River Exe to Brampford Speke UWS, located 750m to the north of the site, consisting of a river and associated habitat, species rich ditch, semi-improved and marshy grassland with bird interest (sand martin);

- Stafford Bridge Marsh UWS, located 750m to the north of the site, consisting of a possible floodplain grazing marsh; and,
- Cowley Barton Fields CWS, located 900m to the west of the site, consisting of semi-improved and poor semi-improved grassland, riparian habitat, wetland habitats including a small area of wet woodland. Notable plant and dragonfly interest.

Great Crested Newt Consultation Zone

The desk based review identified that the site is located within the periphery of a great crested newt (*Triturus cristatus*) consultation zone. Such zones extent for 2 km from existing and historical great crested newt recordings. In this instance the consultation zone extends from great crested newt records located 4 km to the southeast and 4.5 km to the east of the site, respectively.

5.1.2 Protected Species & Species of Conservation Concern

The desk study revealed records for protected species and species of conservation concern within the surrounding landscape of Belle Vue House.

Species identified which are afforded significant legal protection include brown long-eared bat (*Plecotus auritus*), common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), serotine (*Eptesicus serotinus*), noctule (*Nyctalus noctula*), daubenton's (*Myotis daubentoni*), lesser horseshoe (*Rhinolophus hipposideros*), unidentified bats, badger (*Meles meles*), grass snake (*Natrix natrix*), otter (*Lutra lutra*), slow-worm (*Anguis fragilis*), marsh fritillary (*Euphydryas aurinia*), hedgehog (*Erinaceus europaeus*), dormouse (*Muscardinus avellanarius*), barn owl (*Tyto alba)*, fieldfare (*Turdus pilaris*) and redwing (*Turdus iliacus*).

Species afforded less significant legal protection include house sparrow (*Passer domesticus*), song thrush (*Turdus philomelos*), common bullfinch (*Pyrrhula pyrrhula*), spotted flycatcher (*Muscicapa striata*), common toad (*Bufo bufo*), brown hairstreak butterfly (*Thecla betulae*), wall (*Lasiommata megera*), small pearl-bordered fritillary (*Boloria selene*), dingy skipper (*Erynnis tages*), dot moth (*Melanchra persicariae*), lackey (*Malacosoma neustria*), mottled rustic *(Hoplodrina blanda*), shoulder-striped wainscot (*Mythimna comma*), grizzled skipper (*Pyrgus malvae*), small heath (*Coenonympha pamphilus*), buff ermine (*Spilosoma luteum*), dark-barred twin-spot carpet (*Xanthorhoe ferrugata*), rosy minor (*Mesoligia literosa*), rustic *(Hoplodrina blanda*), sallow (*Xanthia icteritia*), small phoenix (*Ecliptopera silaceata*), small square-

spot (*Diarsia rubi*), cornflower (*Centaurea cyanus*), common frog (*Rana temporaria*), linnet (*Linaria cannabina*), marsh tit (*Poecile palustris*), small blue (*Cupido minimus*), stag beetle (*Lucanus cervus*), brown hare (*Lepus europaeus*) and small pearl-bordered fritillary (*Boloria selene*).
Records were also provided for the Devon Biodiversity Action Plan Species (DBAP) of primrose (*Primula vulgaris*).

Further records were provided for the bird species of dunnock (*Prunella modularis*), swallow (*Hirundo rustica*), green woodpecker (*Picus viridis*), willow warbler (*Phylloscopus rochilus*), nightingale (*Luscinia megarhynchos*), swift (*Apus apus*), whitethroat (*Sylvia communis*), herring gull (*Larus argentatus*), house martin (*Delichon urbica*), kestrel (*Falco tinnunculus*), swift (*Apus apus*), which are all Red and Amber Listed by the Royal Society for the Protection of Birds (RSPB).

Furthermore, the records included corky-fruited water-dropwort (*Oenanthe pimpinelloides*), solomon's seal (*Polygonatum multiflorum*), lesser centaury (*Centaurium pulchellum*), flowering rush (*Butomus umbellatus*), spiked water-milfoil (*Myriophyllum spicatum*), white water-lily (*Nymphaea alba*), fat duckweed (*Lemna gibba*), yellow loosestrife (*Lysimachia vulgaris*), wild service-tree (*Sorbus torminalis*), cyclamen (*Cyclamen hederifolium*), grass vetchling (*Lathyrus nissolia*), corncockle (*Agrostemma githago*), slender tare (*Agrostemma githago*), round-leaved crane's-bill (*Geranium rotundifolium*) and fringed water-lily (*Nymphoides peltata*), which are all Devon Notable species.

The records also included Japanese knotweed (*Fallopia japonica*), rhododendron (*Rhododendron ponticum*), Indian balsam (*Impatiens landulifera*), which are invasive non-native species, for which it is prohibited to cause to spread in the wild.

It is understood that records held by DBRC and DBG are largely obtained as incidental recordings. Subsequently an absence of any specific species recordings does not consequently indicate an absence of species.

Records held by DBRC and DBG are largely obtained as incidental recordings. Subsequently an absence of any specific species recordings does not consequently indicate an absence of a species.

5.2 Field Survey

Table 1. Environmental conditions on 20th February 2018.

Temperature (°C)	Wind Speed (Beaufort Scale)	Cloud cover (%)	Precipitation	Sunset time
14	2	5	None	N/A

Constraints on the survey:
The survey was undertaken in late Winter which may preclude spring and summer annual botanical species. However botanical diversity was considered sufficient to classify and assess the habitats present.

5.2.1 Habitats

The survey area of Belle Vue consists of a dwelling with driveway and garden, outbuilding and stables. The remainder of the landholding includes sheep grazed paddocks and woodland (totalling 1.3 ha), which descend steeply to a small stream, bound by a combination of the stream, a hedgerow and two hedgebanks.

An Extended Phase 1 Habitat Survey Map is provided in Appendix 2. The dwelling and associated structures of the property are specifically considered further in Section 5.3 below.

A small area of scrub is located to the south of the outbuilding. The scrub is dominated by bramble (*Rubus fruticosus agg.*) and nettle (*Urtica dioica*).

To the south of the drive is a small terrace of amenity grassland dominated by perennial rye grass (*Lolium perenne*).

Located centrally is a woodland copse (see Figure 7) which is dominated by apple (*Malus domestica*), alder (*Alnus glutinosa*), pedunculate oak (*Quercus robur*) and ash (*Fraxinus excelsior*).

The northern boundary consists of Bell Vue Road, which is further lined by a post and rail fence and a grass verge and hedgebank to the south and north respectively (see Figure 8). The verge is approximately 2 m wide and is dominated by perennial rye grass, Yorkshire fog, broadleaved dock, with creeping buttercup, common dog violet (*Viola riviniana*), red fescue (*Festuca rubra*), germander speedwell (*Veronica chamaedrys*), dandelion and hogweed.

The northern boundary hedgebank is approximately 3 m wide, with a 3 m high bank and vegetation predominantly extending for a further 2-3 m, with taller interspersed trees. The wooded vegetation is dominated by beech (*Fagus sylvatica*), with holly (*Ilex aquifolium*), sessile oak (*Quercus petraea*) and ash. The ground vegetation included ivy (*Hedera helix*), dog rose (*Rosa canina*), cleavers, bramble, dandelion, common nettle, Yorkshire fog, hedge bindweed (*Calystegia sepium*), stinking iris (*Iris foetidissima*), herb Robert (*Geranium robertianum*), primrose, red campion (*Silene dioica*), common dog violet and greater stitchwort (*Stellaria holostea*).

The eastern boundary consists of hedge which has approximately 8 m high wooded vegetation (see Figure 9), including pedunculate oak, ash, hawthorn (*Crataegus monogyna*) and spindle (*Euonymus europaeus*). The ground vegetation is dominated by ivy, cock's foot, Yorkshire fog, bramble, with stinking iris, cleavers, ribwort plantain (*Plantago lanceolata*), hart's tongue fern (*Asplenium scolopendrium*), cow parsley (*Anthriscus sylvestris*), spear thistle, lords and ladies, cleavers, hedgerow cranesbill, soft shield fern, herb Robert, ground ivy and scaly male fern.

The southern boundary consists of a stream (see Figure 10) with marginal vegetation and scattered trees. The tress includes goat willow (*Salix caprea*), hazel (*Corylus avellana*), alder, ash and oak. The marginal vegetation includes hart's tongue fern, ivy, male fern (*Dryopteris filix-mas*), dog's mercury (*Mercurialis perennis*), nettle, wood avens, wood false brome, lesser celandine, red campion, meadowsweet, pendulous sedge, Yorkshire fog, red campion, box honeysuckle, and ramsons. and dog rose. The western extent of the southern boundary consists of several individual scattered trees including

The western boundary consists of a hedgebank, with a bank approximately 0.5m high and 1m wide, with vegetation predominantly extending for a further 12m to 14m. The trees are dominated by oak, alder, elder, with English elm, holly and beech. The ground vegetation included nettle, cleavers, hart's tongue fern, bramble, soft shield fern, wood avens, herb Robert and ivy (see Figure 11).

The main areas of the land holding to the north, east and west of the woodland copse comprises of a semi-improved grassland fields with scattered trees. The semi-improved grassland field included a relatively short sward dominated by perennial rye grass, Yorkshire fog, annual meadow-grass (*Poa annua*), cock's foot, with broad-leaved dock, creeping buttercup, stone parsley (*Sison amomum*), spear thistle

(*Cirsium vulgare*), common vetch (*Vicia sativa*), cleavers and common nettle (see Figure 12).

Individual scattered trees located south of the dwelling included apple (*Malus* sp.), oak, alder, ash and crack willow (*Salix fragilis*).

5.2.2 Amphibians

The hedgebank and hedgerow boundaries, scrub and marginal vegetation are likely to provide habitat for common amphibian species such as common frog (*Rana temporaria*), common toad (*Bufo bufo*), smooth newt (*Lissotriton vulgaris*) and palmate newt (*Lissotriton helveticus*).

If allowed to grow the semi-improved grassland will also provide habitat for these species.

5.2.3 Badger

A badger sett was present in association with the southern corner of the site.

The sett included at least four entrance holes, however did not include any signs of recent activity and is considered as an outlying badger sett (see Figure 13).

5.2.4 Bats Flight Lines & Feeding Habitat

The hedgebanks, hedgerows, trees, scrub, semi-improved grassland, stream and marginal vegetation will provide feeding habitat for bat species.

The hedgebanks and hedgerows are likely to provide sheltered flight lines for bat species, potentially including dispersal routes between roosts and/or further feeding habitats.

5.2.5 Roosting Bats

Trees

Six trees within the site include features which could be utilised by roosting bats (see Figure 14).

Buildings

Further consideration regarding the potential for roosting bats in association with the site buildings is provided in Section 5.3.

5.2.6 Bird Species

The hedgebanks, hedgerows, trees, scrub, semi-improved grassland, stream and marginal vegetation will all provide feeding habitat for bird species.

The hedgebanks, hedgerows, scrub and trees are likely to provide nesting habitat for a range of bird species. If allowed to grow, the semi-improved grassland may potentially provide nesting habitat for ground nesting birds.

5.2.7 Dormice

The woodland, hedgebanks and hedgerows represent suitable habitat to support dormice. The likelihood of dormice being present at the site is notably increased through the connectivity of the hedgebanks to additional wooded vegetation in the locality including further hedgebanks, scrub and broadleaved woodland.

5.2.8 Otter

There were no field signs of otter identified in associated with the stream, and no potential holts or lying up areas were identified. However, the stream may be utilised by otter for dispersal and feeding habitat.

5.2.9 Reptiles

The hedgebank, scrub and hedgerow boundaries, and marginal vegetation may provide dispersal and general habitat for reptiles such as slow-worm, common lizard (*Zootoca vivipara*), grass-snake (*Natrix natrix*) and adder (*Vipera berus*).

If allowed to grow the semi-improved grassland will also provide habitat for these species.

5.3 Building Inspection

Table 1. Environmental conditions on 20th February 2018.

Temperature (°C)	Wind Speed (Beaufort Scale)	Cloud cover (%)	Precipitation	Sunset time
14	2	5	None	N/A

Constraints on the survey:
An extent of the loft space of the dwelling was inaccessible. With exception to the inaccessible roof void a thorough search was made of all accessible internal areas, and all external surfaces, with an assessment made of the roof structure.

5.3.1 Bats

Dwelling

The dwelling has crawl space access points, in the form of gaps between/below slightly raised roofing tiles and ridge tiles.

The internal inspection revealed scatterings of whiskered bat droppings (identified by DNA analysis – see Appendix 8). The droppings were located throughout the loft space, including one concentration of approximately 50 droppings, below the ridgeline at the eastern extent of the dwelling.

Outbuilding

Potential access points for bat species comprised of a crawl space access points between the roof and wall tops.

No field signs of bat use were associated with the structure.

Stable

Potential access points for bat species comprised of gaps above and below the stable doors.

No field signs of bat use were associated with the structure.

5.3.2 Nesting Birds

No former bird nest sites were identified in association with the dwelling, outbuilding or stable.

Figure 7. The woodland copse

Figure 8. The northern boundary hedgebank

Figure 9. The eastern boundary

Figure 10. The southern boundary stream, marginal vegetation with scattered trees

Figure 11. The western boundary hedgebank

Figure 12. The semi-improved grassland

Figure 13. One of four badger holes located at the southwest corner of the site

Figure 14. One of six trees that include potential roosting features

SECTION 6 DISCUSSION

6.1 Statutory Designated Sites

No statutory designated sites are present within 1 km of the site.

6.2 Non-statutory Designated Sites

Duryard Valley Park County Wildlife Site (CWS)

Bell Vue House and the landholding are included within the Duryard Valley Park CWS.

This CWS consists of four separate areas within the Duryard Vally totaling 40 ha. The description for the designation refers to unimproved and semi-improved neutral grassland, hedges, scrub and woodland. However, it is noted that the CWS also includes the additional dwellings and gardens along Bell Vue Road.

The proposal will remove an incremental amount of semi-improved grassland (approximately 0.25 ha) for the working area and footprint of the new dwelling and associated driveway and garden.

However, this loss of semi-improved grassland is considered as a negligible impact to the CWS, due to:

- The limited species diversity of the semi-improved grassland;
- The proposal is not perceived to negatively impact upon the surrounding remaining areas of the CWS (39 ha); &

The demolition and removal of the current dwelling, associated driveway, garden and outbuilding will allow this area previously developed extent of the CWS to be reverted to green space as grassland and/or woodland.

Remaining Statutory & Non-statutory Designated Sites

Due to the intervening distances and character of the designated sites identified by the desk study, there are no perceived negative impacts to these sites from the proposed development.

6.3 Amphibians

6.3.1 Great Crested Newt

The site is located within a great crested newt consultant zone, which is within 5 km of two great crested newt records located to the southwest and to the east of the site, respectively.

However, due to a lack of a suitable breeding waterbody on site or within 500 m of the site, it is not considered that the site supports great crested newts.

6.3.2 General Amphibian Species & Reptiles

The hedges, tall ruderal vegetation, scrub, stream margin vegetation, and if allowed to grow, the grassland, may provide habitat for the terrestrial life phases of common amphibians and reptiles. DBRC provided records for common frog and common toad in the desk study search area.

The common toad is listed upon the UK Biodiversity Action Plan (UK BAP), and must be considered through the planning process. This and further species of amphibian may be considered through the Natural Environment & Rural Communities Act (NERC) 2006, with public bodies, including LPAs, to ensure due regard to the conservation of biodiversity. Such considerations may seek to protect, re-establish or create habitat suitable for amphibians post development.

Reptiles are protected against intentional killing and injury under the Wildlife and Countryside Act 1981 (as amended). Natural England states that activities such as site investigations, site clearance and movements of machinery may breach this legislation by causing death or injury to reptiles (English Nature, 2004).

It is understood that a new dwelling is proposed to replace the current dwelling, with the majority of the land holding remaining undeveloped. Precautionary measures should be employed to encourage dispersal of amphibians away from the proposed working areas.

6.4 Badger

A badger sett was present at the southwest corner of the site.

Badgers are protected by the Protection of Badgers Act 1992 and the Wildlife and Countryside Act 1981 (as amended), Schedule 6. Under the Wildlife and Countryside Act it is illegal to intentionally kill, capture, injure or ill-treat any badger.

The identified badger sett is located at a sufficient distance to not be affected by the proposed works. Precautionary recommendations are included to ensure no badgers are harmed by the development works.

6.5 Bats

6.5.1 Roosting Bats

Bell Vue House

The roofing layers and loft space of the main dwelling supports a confirmed bat roost occupied by whiskered bats. It is perceived that the roost is predominantly utilised as a summer day roost.

Bats are protected under several articles of UK and European legislation, notably the Wildlife & Countryside Act 1981, the CroW Act 2000, and the Conservation (Natural Habitats, &c) (Amendments) 2017 Regulations [referred to as HR]. Under this legislation, it is illegal to:

- Intentionally or deliberately kill or injure bats;
- Deliberately disturb bats;
- Recklessly disturb roosting bats or obstruct access to their roosts; and,
- Damage or destroy bat roosts.

Where works are proposed that would result in offences being committed, a European Protected Species License (EPSL) is required under the Habitats Regulations (2017). An EPSL must be applied for from Natural England, permitting activities that would otherwise be deemed illegal.

The proposed works will destroy the bat roost and potentially cause disturbance and or injury to any roosting bats at the commencement of the proposed works. It will therefore be necessary to apply and obtain an EPSL from Natural England under the

conservation (Natural Habitats, &c) (Amendments) 2017 Regulations, to legally allow the demolition of the dwelling.

In order to obtain an EPSL, the following three regulations must be satisfied:

1) The proposed works or development may be for the purposes of "*preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment*." [R.44(2) (e)];
2) "*There is no satisfactory alternative*" [R.44(3)(a)]; and,
3) "*The action will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range*." [R.44(3)(b)].

Mitigation and compensatory measures will need to be detailed within the EPSL application, potentially including appropriate/sensitive timing of the commencement of works, initial ecological supervision and the incorporation of suitable replacement roosting provisions within the new dwelling.

Providing that such measures are implemented, the destruction and recreation of a roost at Bell Vue will mean that the proposal will not necessarily have a detrimental population effect.

Outbuilding and Stable

No bats or their field signs were identified in association with the garage or stable. These structures were not considered to support a bat roost.

Trees

Six trees within or immediately surrounding the proposed development area were identified with potential bat roosting features.

All bat species and their roosts are protected under Section 9 of the Wildlife and Countryside Act 1981 (as amended), through their inclusion on Schedule 5, as well as under Schedule 2 of the Conservation of Habitats and Species Regulations 2017.

It is understood that five trees with potential bat roosting features will be retained. The trees should be retained and omitted from any artificial lighting schemes associated with any potential development.

However, if this is not possible further survey would be required to determine the presence or absence of a bat roost within each of the trees.
It is further understood that one tree identified with 'low' bat roosting potent will be removed. The removal of the tree will require precautions for the possible presence of bats (in accordance with BCT guidelines).

6.5.2 Bat Flight Lines & Feeding Habitat

The trees, hedges, woodland, scrub, marginal vegetation and grassland represent potential feeding habitat and/or flight lines for bat species.

As a signatory to the Bonn Convention (Agreement on the Conservation of Bats in Europe) the UK has committed to protecting bat habitats, which necessitates the identification and protection from damage or disturbance of important feeding areas and commuting routes.

It is understood that a new dwelling is proposed to replace the current dwelling (albeit at another location), with the remainder of the land holding remaining undeveloped.

The retained hedgebank and hedgerow boundaries, woodland, marginal vegetation, stream and retained semi-improved grassland should remain unlit by any external lighting and be managed appropriately for potential continued use by bat species.

6.6 Bird Species

No former nest sites were identified in association with the buildings, however it is possible that new bird nest sites could be established during future bird nesting seasons.

The trees, hedges, woodland, scrub, stream, marginal vegetation, grassland and site buildings may provide feeding and/or nesting habitat for a range of bird species.

All birds, their nests and eggs are protected under the Wildlife and Countryside Act 1981 (as amended). It is understood that the hedgerow and hedgebanks are to be retained.

Precautionary measures should be employed to ensure the development does not disturb any active bird nest sites.

6.7 Dormouse

The hedged boundaries are suitable to support dormice. It is understood that a new dwelling is proposed to replace the current dwelling (albeit at a different location), with the hedge boundaries remaining undisturbed.

The retained hedgebank and hedgerow boundaries should remain unlit by any external lighting and be managed appropriately for potential continued use by dormice (if present).

6.8 Otter

There were no field signs of otter identified in associated with the stream, and no potential holts or lying up areas were identified. However, the stream may be utilised by otter for dispersal and feeding habitat.

Otters are protected by the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2010. Under Schedule 5 of the Wildlife and Countryside Act it is illegal to intentionally kill, capture, disturb or injure any otter. It is also an offence to destroy or damage any breeding sites or resting place. It is understood that the stream will be unaffected by the works.

Precautionary recommendations are included to ensure otters are not impacted by the construction works.

SECTION 7 RECOMMENDATIONS

7.1 Roosting Bats

7.1.1 Dwelling

European Protected Species License (EPSL)

The demolition of the dwelling will destroy the bat roost and potentially cause disturbance and or injury to any roosting bats present at the time of the proposed works. It will therefore be necessary to apply and obtain a European Protected Species License (EPSL) from Natural England under the conservation (Natural Habitats, &c) (Amendments) 2017 Regulations, to legally allow the demolition of the dwelling.

In order to apply for the license, it will be required to successfully obtain full planning permission from the Local Planning Authority (LPA).

Mitigation and compensatory measures will need to be detailed within the EPSL application, including initial ecological supervision and the incorporation of at least five replacement inbuilt bat roosting provisions in the external walls of the proposed dwelling (see Appendix 2).

7.1.2 Outbuilding & Stable

It is not considered that the outbuilding and stable supports a bat roost. The proposed works are unlikely to result in disturbance to bats or to significantly affect the distribution or abundance of local populations. It is not considered necessary to apply for a bat licence under the Conservation (Natural Habitats, &c) (Amendments) 2017 Regulations, and no further survey effort is considered necessary in relation to the proposal.

Good Practise

As a matter of good practice, any contractors should be made aware of the potential presence of bat/s, potentially within any section of the structures (i.e. roof spaces, roofing layers, upon wall tops, within/behind fascias and/or within the ridge lines etc). In the unlikely event that a bat found following the initial stages of the works to any building, activity should stop in the vicinity of the bat/s and advice should be sought from EcoLogic Consultant Ecologists LLP (Tel: 07949 220474) or from the Natural

England Bat Helpline (Tel: 0845 1300 228). Bats should ideally not be handled (unless with gloves), but should be left in situ, gently covered until advice is obtained.

7.2 Tree Removal

Removal of a tree identified with low bat roosting suitability will require precautions for the possible presence of bats (in accordance with BCT guidelines) and/or nesting birds, with removal being prior checked and supervised by suitability qualified ecological consultant and undertaken by a suitably qualified arboriculturist, including the following:

- Cracks and splits to be wedged to prevent closure prior to felling;
- Loose bark and/or ivy to be carefully peeled back to reveal the wood beneath and confirm no bats are present;
- Cavities must not be sawn through; sections that contain potential roost features must be “soft-felled” and roped carefully down to the ground;
- Cavity containing sections should be allowed to remain undisturbed on site for 24 hours following felling to allow any undiscovered bats (or other animals) to escape; and,
- Where possible, trees should be scheduled for felling during October/November, or February/March.

7.3 Semi-improved grassland

The semi-improved grassland should be continued to be maintained with a short grassland sward prior to, and during, the period of construction. This is to discourage any establishment of amphibians or reptiles within the proposed development areas prior to the works.

7.4 Scrub

Precautionary measures must be undertaken to encourage amphibian and reptile species away from the scrub within the proposed working area.

Such measures would require prior management of the scrub vegetation. This management should comprise of cutting the vegetation during the combined activity period for amphibians and reptiles, which is April to October inclusive, following a bird survey check (see Section 7.8 for further details).

The initial cut would require a following removal or harvest of the cuttings, with subsequent maintenance cuts undertaken to maintain a short sward up to and during the period of the development (see Section 7.3).

7.5 Site Excavations

As a precautionary measure during the works, any excavations deeper than 1 m or large pipework, which are to remain open overnight, should be fenced or covered to prevent potential access to these areas by badger, otter, hedgehog etc., which could cause entrapment or injury.

7.6 External Lighting

No external lighting should be positioned to illuminate the sites boundary vegetation, the retained trees (including those that have identified potential bat roosting features) and semi-improved grassland and any proposed bat roosting provisions. This is to ensure artificial lighting does not impact/deter nocturnal species such as bats.

7.7 Tree & Hedgerow Protective Measures

The retained areas/lengths of woodland, scattered trees, northern boundary and an extent of the western and eastern boundaries, within proximality to the works, should be protected with tree protective measures during construction. This is to avoid direct damage to shrubs and trees, and/or compaction/disturbance of ground/tree root zones which could cause deterioration of individual trees, and for protection of the trees and hedge as potential habitat for bats, dormice, nesting birds, amphibians and reptiles.

7.8 Nesting Birds

Any vegetation removal/management and/or building works should ideally be timed to commence outside of the bird nesting season, which is generally considered to be between March to August inclusive, although depending upon the species, geographical area and the weather conditions, nesting can extend outside this period. Nesting is determined as being from when birds first initiate nest building up until the point when fledglings stop returning to the nest.

If works cannot be undertaken outside of the nesting season, a prior bird nesting check would be required, which should be undertaken by a suitably qualified ecologist. Subsequently if any active nest sites are identified these nests, and the immediately surrounding area, should remain undisturbed until all the young have fledged naturally.

7.9 Stream

The Environment Agency's Pollution Prevention Guidelines: Working at Construction & Demolition Sites PPG6 (2012) must be adhered to, ensuring no pollution incident and/or water quality reduction is caused by the construction of the proposed development. The development design should seek to ensure that no pollution incident is likely to be caused through future use of the building.

7.10 Ecology Mitigation & Enhancement Measures

The National Planning Policy Framework (NPPF, March 2012) outlines the Government's commitment to minimise impacts on biodiversity and provide net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.

- New planting/landscaping should consist of native wildlife attracting species of local provenance, with appropriate aftercare and management to ensure that these areas are maintained. This would provide new habitat for invertebrates, amphibians, reptiles and birds;
- Inbuilt bird and bee provisions should be incorporated into the proposed residential units, at a ratio of one of each provision type per unit (see Appendices 3 & 4); and,
- Creation of at least two habitat piles, consisting of logs, brash &/or grass cuttings, within undisturbed areas of the site.

7.11 Compliance Monitoring

The development should include a pre-commencement site meeting and subsequent compliance monitoring visits, undertaken and recorded by a suitably qualified and pre-appointed ecologist.

Such visits would be required to confirm adherence to recommendations/constraints and implementation of ecological mitigation and enhancement recommendations.

7.12 Conclusion

The proposed development represents a negative ecological impact through habitat removal, disturbance of the Duryard Valley Park CWS and destruction of the identified bat roost within the dwelling.

Through implementation of ecology mitigation, compensation and enhancement measures the proposal would represent a neutral biodiversity impact.

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APPENDICIES

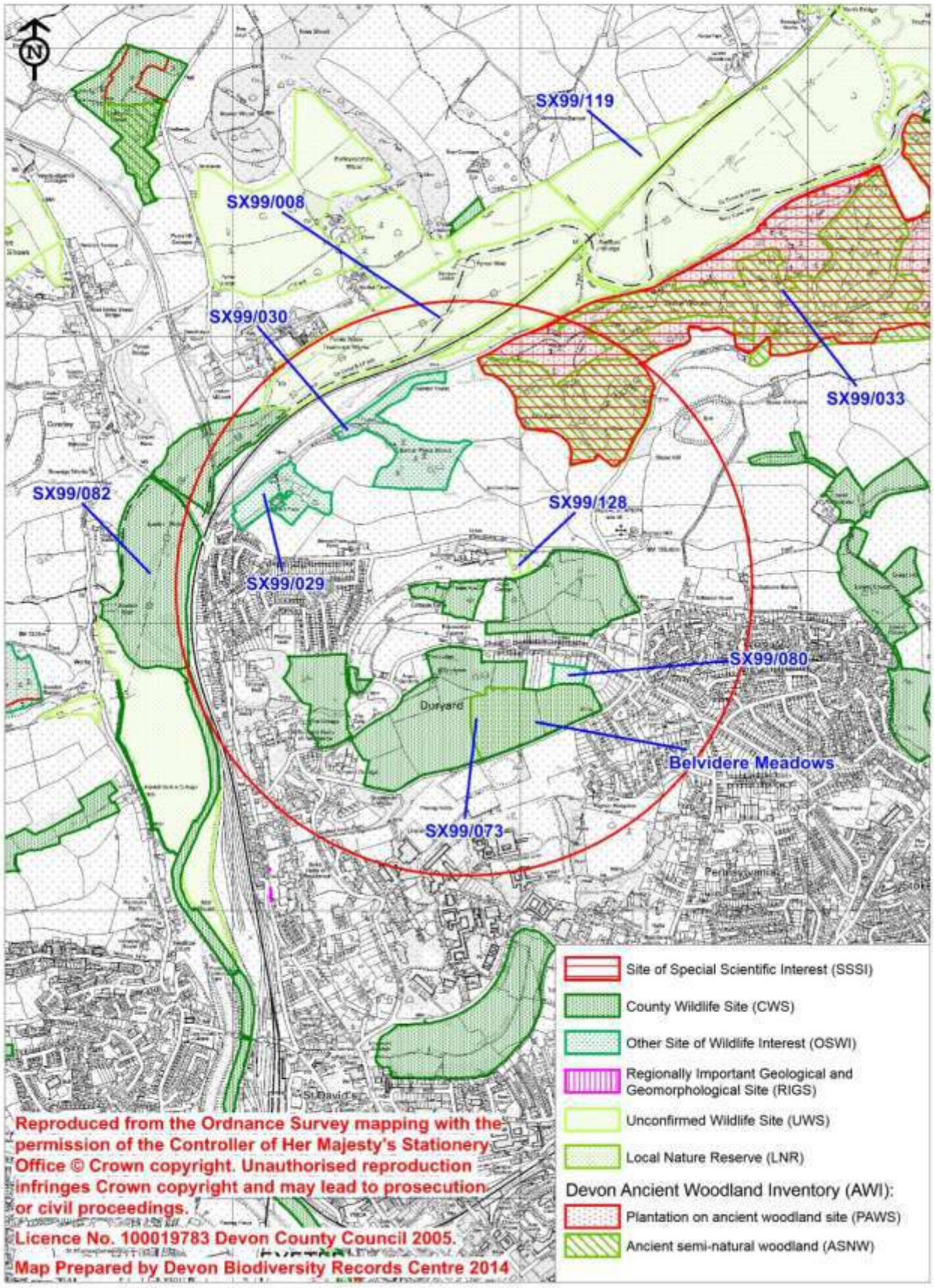
Appendix 1: Desk Study Data
Appendix 2: Examples of Inbuilt Bat Roosting Provisions
Appendix 3: Examples of Inbuilt Bird Nesting Provisions
Appendix 4: Example of Bee Brick
Appendix 5: Extended Phase 1 Habitat Survey Map
Appendix 6: Constraints Plan
Appendix 7: Mitigation & Opportunities Plan
Appendix 8: Bat Dropping DNA Analysis

APPENDIX 1 DESK STUDY DATA

- Information provided by Devon Biological Records Centre (DBRC);
- Information provided by the Devon Bat Group (DBG);

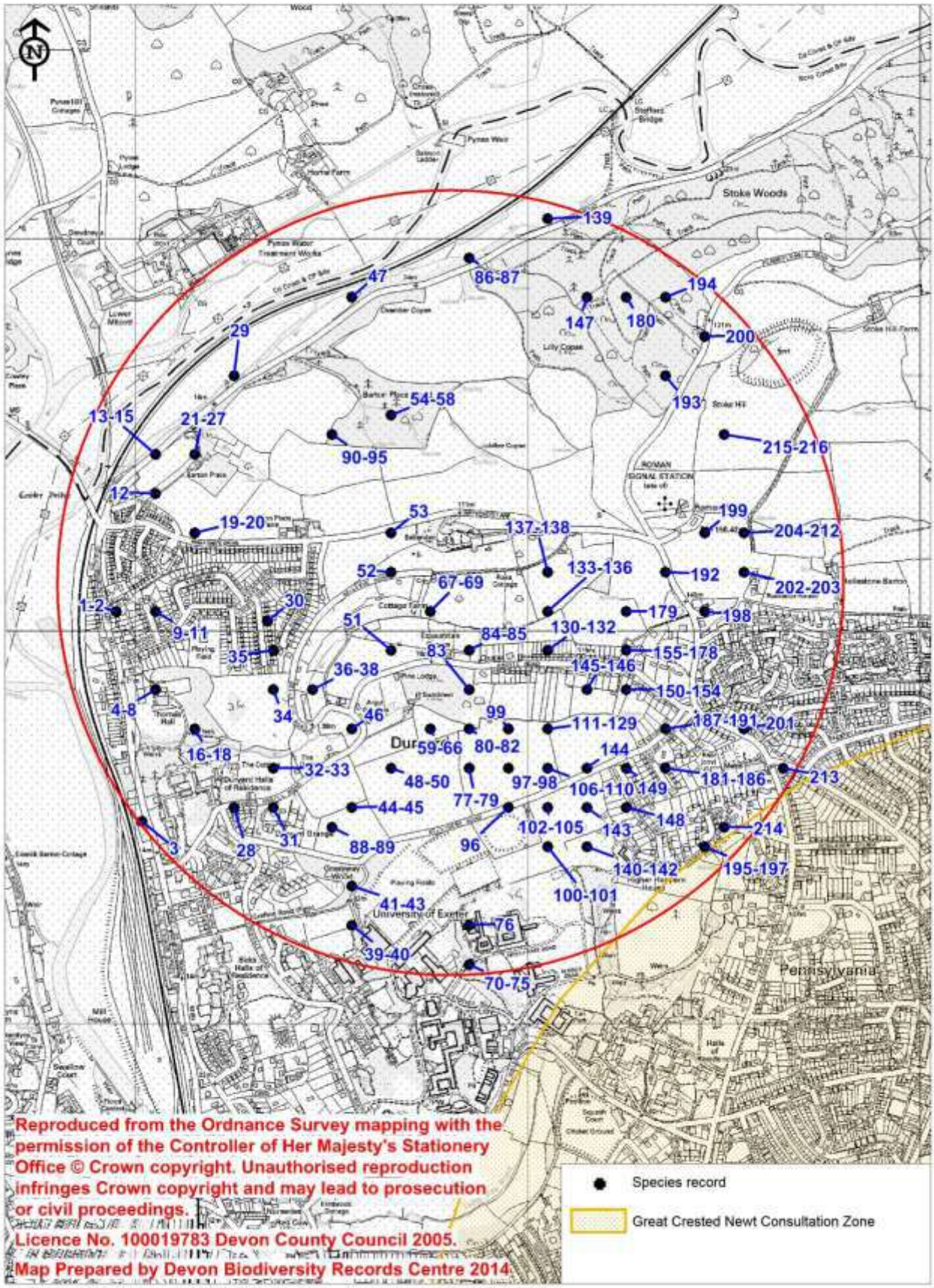
Statutory and non-statutory sites within 1km of SX9180395122 (17/12/2014) Enq no. 7237

Devon Biodiversity Records Centre



Legally protected and notable species within 1km of SX9180395122 (17/12/2014) Enq no.7237

Devon Biodiversity Records Centre



Devon Biodiversity Records Centre

Statutory & non-statutory sites within 1 kilometre of SX91803 95122 (17/12/2014) Enq no. 7237

File Code	Site Name	Grid Reference	Area (ha)	Description	Status
SX99/033	Stoke Woods	SX929961	91	Ancient broadleaved woodland	SSSI
SX99/073	Duryard Valley Park	SX921951 & SX918946 & SX913948 & SX918951	40.5	Unimproved & semi-improved neutral grassland, hedges, scrub & woodland	CWS
SX99/082	Cowley Barton Fields	SX907953	22.1	Improved and poor semi-improved grassland, riparian habitat, swamp communities and small area of wet woodland. Notable plant and dragonfly interest	CWS
SX99/029	Barton Place	SX911954	3.8	Semi-improved neutral grassland	OSWI
SX99/030	Barton Place Wood	SX916955	6.7	Mixed plantation woodland	OSWI
SX99/080	21 Argyll Road	SX922948	0.7	Garden which once supported unimproved grassland. In 2009 only a small amount remains. Wildflower seed mixes have been sown and the area landscaped.	OSWI
SX99/008	River Exe to Brampford Speke	SX920964	109.8	River and associated habitat, species rich ditch, semi-improved & marshy grassland with bird interest (sand martin)	UWS
SX99/119	Stafford Bridge Marsh	SX921963	18.3	Possible floodplain grazing marsh	UWS

File Code	Site Name	Grid Reference	Area (ha)	Description	Status
SX99/128	Wreford's Lane Orchard	SX919952	0.5	Orchard	UWS
	Belvidere Meadows	SX920946	7.6		LNR

Sites of Special Scientific Interest (SSSI): these are notified by Natural England because of their plants, animals or geological features (the latter are geological SSSIs or gSSSI). Natural England needs to be consulted before any operations likely to damage the special interest are undertaken. SSSI is a statutory designation with legal implications.

County Wildlife Sites (CWS): these are sites of county importance for wildlife, designated on the basis of the habitat or the known presence of particular species. This is not a statutory designation like SSSIs, and does not have any legal status. The National Planning Policy framework requires local authorities to identify and map locally designated sites of biodiversity importance (such as County Wildlife Sites) as part of the Local Plan process and to draw up criteria based policies against which proposals for development affecting them will be judged. CWS recognition does not demand any particular actions on the part of the Landowner and does not give the public rights of access. However, it may increase eligibility for land management grants.

Local Nature Reserve (LNR): are for both people and wildlife. They are places with wildlife or geological features that are of interest locally, which give people special opportunities to study and learn about them or simply enjoy and have contact with nature. They are designated by the local authority with support from Natural England.

Other Sites of Wildlife Interest (OSWI): these are sites of significant wildlife interest within a local context that have been surveyed but do not reach the criteria for County Wildlife Sites. They are not covered by NPPF, but may be included in Local Plans.

Unconfirmed Wildlife Sites (UWS): these are sites identified as having possible interest but not fully surveyed. Some of these sites will be areas of significant wildlife interest.

Regionally Important Geological and Geomorphological Sites (RIGS): these are earth science sites that are of regional or local importance. Like CWS, they are included in Local Plans and referred to under NPPF.

Ancient Woodland Inventory (AWI): Ancient Woodland is a term applied to woodlands which have existed from at least Medieval times to the present day without ever having been cleared for uses other than wood or timber production. A convenient date used to separate ancient and secondary woodland is about the year 1600. In special circumstances semi-natural woods of post-1600 but pre-1900 origin are also included. The Devon Ancient Woodland Inventory was prepared in 1986 by the Nature Conservancy Council. There are two types of ancient woodland, both of which should be treated equally in terms of the protection afforded to ancient woodland in the National Planning Policy framework (NPPF):

- **Ancient semi-natural woodland (ASNW):** where the stands are composed predominantly of trees and shrubs native to the site that do not obviously originate from planting. The stands may have been managed by coppicing or pollarding in the past, or the tree and shrub layer may have grown up by natural regeneration.
- **Plantations on ancient woodland sites (or PAWS, also known as ancient replanted woodland):** areas of ancient woodland where the former native tree cover has been felled and replaced by planted stock, most commonly of a species not native to the site. These will include conifers such as Norway spruce or Corsican pine, but also broadleaves such as sycamore or sweet chestnut.

Exeter Biodiversity Reference Map layers:

Habitats of Principal Importance: Publication of the English list satisfies the requirements of Section 41 of the *Natural Environment and Rural Communities Act* (2006).

Habitats of Principal Importance are all the habitats in England that have been identified as requiring action in the UK Biodiversity Action Plan (UK BAP). They include terrestrial habitats such as upland hay meadows to lowland mixed deciduous woodland, and freshwater and marine habitats such as ponds and subtidal sands and gravels. There are 56 habitats listed.

Habitats of Principal Importance are used to guide decision-makers such as local and regional authorities, in implementing their statutory duties to have regard to the conservation of biodiversity in the exercise of their normal functions.

Greenspace A: These areas support wildlife-rich assemblages that do not meet the HPI criteria. Examples of such habitats could include scrub, semi-improved grassland, broadleaved plantation woodland, watercourses, rank vegetation etc.

Greenspace B: These areas support a less rich wildlife assemblage than the Greenspace A category and have often been heavily modified through agricultural improvement or woodland planting. Examples of such habitats include agriculturally improved grassland, amenity grassland (in parks, recreational areas and other open spaces), formal landscaping and conifer plantations.

Devon Biodiversity Records Centre

Legally protected & notable species records within 1 kilometre of SX91803 95122 (17/12/2014) Enq no. 7237

No	Common Name	Scientific Name	Locality	Year	Grid Reference	Uk Protection	International Protection	Status
1	Dunnock	Prunella modularis	Cowley Bridge Road, Exeter (garden)	2010	SX909950			Amber
2	Song Thrush	Turdus philomelos	Cowley Bridge Road, Exeter (garden)	2010	SX909950			UKBAP (P); Red
3	Japanese Knotweed	Fallopia japonica	Exeter. Builders yard next to laundry on Cowley Bridge Road.	2004	SX91019451	WCA 9		
4	Brown Long-eared Bat	Plecotus auritus	Thomas Hall, Exeter & Old Stables	2008	SX910948	WCA 5, 6; NERC 41	EC IVa; Bern II; Bonn II	UKBAP (P)
5	Common Pipistrelle	Pipistrellus pipistrellus	Thomas Hall, Exeter & Old Stables	2008	SX910948	WCA 5, 6	EC IVa; Bern III, Bonn II	
6	Primrose	Primula vulgaris	Thomas Hall, Exeter	2007	SX910948			DBAP
7	Swallow	Hirundo rustica	Thomas Hall, Exeter	2007	SX910948			Amber
8	a Bat	Chiroptera	Thomas Hall, Exeter University	1990	SX910948	WCA 5, 6	EC IVa; Bonn II	
9	Common Pipistrelle	Pipistrellus pipistrellus	Round Hill Close, Exeter.	1994-1996	SX910950	WCA 5, 6	EC IVa; Bern III, Bonn II	
10	Purple Hairstreak	Quercusia quercus	Barton Place	2009	SX910950			Decline
11	a Bat	Chiroptera	Roundhill Close, Westgarth Road, Cowley Bridge, Exeter.	1995	SX910950	WCA 5, 6	EC IVa; Bonn II	
12	Primrose	Primula vulgaris	Barton Place	1989	SX910953			DBAP
13	Corky-Fruited Water-Dropwort	Oenanthe pimpinelloides	Barton Place	1989	SX910954			DN3
14	Japanese Knotweed	Fallopia japonica	Stoke Road (A396), Exeter, towards junction at Cowley.	2001-2002	SX910954	WCA 9		
15	Primrose	Primula vulgaris	Barton Place	1989	SX910954			DBAP
16	Indian Balsam	Impatiens glandulifera	Thomas Hall; Duryard Valley Park	2002	SX911947	WCA 9		

No	Common Name	Scientific Name	Locality	Year	Grid Reference	Uk Protection	International Protection	Status
17	Roe Deer	Capreolus capreolus	Thomas Hall; Duryard Valley Park	2002	SX911947	DA	Bern III	
18	Solomon's Seal	Polygonatum multiflorum	Thomas Hall; Duryard Valley Park	2002	SX911947			DN1
19	Eurasian Badger	Meles meles	Garden on Greenacres Estate (now Cowley Bridge estate), Exeter	1999	SX911952	WCA 6, BA	Bern III	
20	Grass Snake	Natrix natrix	Wrefords Lane, Exeter	2001	SX911952	WCA 5 (KIS); NERC 41	Bern III	UKBAP (P)
21	Common Bullfinch	Pyrrhula pyrrhula	Barton Place	1989	SX911954	NERC 41		UKBAP (P); Amber
22	Corky-Fruited Water-Dropwort	Oenanthe pimpinelloides	Barton Place	1989-2002	SX911954			DN3
23	Eurasian Badger	Meles meles	Barton Place	1989-2000	SX911954	WCA 6, BA	Bern III	
24	Green Woodpecker	Picus viridis	Barton Place	1989	SX911954			Amber
25	Lesser Centaury	Centaurium pulchellum	Barton Place	2002	SX911954			DN1
26	Primrose	Primula vulgaris	Barton Place	1989-2002	SX911954			DBAP
27	Spotted Flycatcher	Muscicapa striata	Barton Place	1989	SX911954	NERC 41		UKBAP (P); Red
28	Japanese Knotweed	Fallopia japonica	Glenthorne Road, Exeter.	2001	SX912945	WCA 9		
29	Eurasian Badger	Meles meles	Stoke Road (A396) towards Tiverton. Past roundabout and about yards from pub on corner.	2002	SX912956	WCA 6, BA	Bern III	
30	a Bat	Chiroptera	Woodleigh Close, Exeter.	2006	SX91339502	WCA 5, 6	EC IVa; Bonn II	

No	Common Name	Scientific Name	Locality	Year	Grid Reference	Uk Protection	International Protection	Status
31	Common Toad	Bufo bufo	Lower Argyll Rd, Exeter	1979	SX913945	WCA 5 (S); NERC 41	Bern III	UKBAP (P)
32	Corky-Fruited Water-Dropwort	Oenanthe pimpinelloides	Duryard Valley Park	2002	SX913946			DN3
33	European Otter	Lutra lutra	Duryard (Operation Otter)	2011	SX913946	WCA 5; NERC 41	EC IIa, IIIa; Bern II	UKBAP (P); DBAP
34	Corky-Fruited Water-Dropwort	Oenanthe pimpinelloides	Duryard Valley Park	2002	SX913948			DN3
35	a Bat	Chiroptera	Woodleigh Close, West Garth Road, Exeter	1986	SX913949	WCA 5, 6	EC IVa; Bonn II	
36	Corky-Fruited Water-Dropwort	Oenanthe pimpinelloides	Duryard Valley Park	2002	SX914948			DN3
37	Indet. Deer	Cervidae	Duryard Valley Park	2002	SX914948	DA	Bern III	
38	Indian Balsam	Impatiens glandulifera	Duryard Valley Park	2002	SX914948	WCA 9		
39	Eurasian Badger	Meles meles	Exeter University Campus, Exeter	2008	SX915942	WCA 6, BA	Bern III	
40	Green Woodpecker	Picus viridis	Exeter (University)	2001	SX915942			Amber
41	Eurasian Badger	Meles meles	Duryard Valley Park Area (Grassway Wood). (Exeter Survey 2002).	2002-2009	SX915943	WCA 6, BA	Bern III	
42	Eurasian Badger	Meles meles	Exeter University Campus, Exeter	2008-2009	SX915943	WCA 6, BA	Bern III	
43	Primrose	Primula vulgaris	Duryard Valley Park Area (Grassway Wood). (Exeter Survey 2002).	2002	SX915943			DBAP
44	Brown Hairstreak	Thecla betulae	Duryard, Exeter	1998	SX915945	WCA 5 (S); NERC 41		UKBAP (P); Nb
45	Wall	Lasiommata megera		1990	SX915945	NERC 41		UKBAP (P)

No	Common Name	Scientific Name	Locality	Year	Grid Reference	Uk Protection	International Protection	Status
46	Corky-Fruited Water-Dropwort	Oenanthe pimpinelloides	Duryard Valley Park Area 10. (Exeter Survey 2002).	2002	SX915947			DN3
47	European Otter	Lutra lutra	A396 just north of Cowley Bridge roundabout, Exeter	2012	SX915958	WCA 5; NERC 41	EC IIa, IIIa; Bern II	UKBAP (P); DBAP
48	Corky-Fruited Water-Dropwort	Oenanthe pimpinelloides	Duryard Valley Park	2002-2011	SX916946			DN3
49	Japanese Knotweed	Fallopia japonica	Duryard Valley Park	2011	SX916946	WCA 9		
50	Primrose	Primula vulgaris	Duryard Valley Park	2011	SX916946			DBAP
51	Slow-worm	Anguis fragilis	Argyll Road, Pennsylvania, Exeter.	2005	SX916949	WCA 5 (KIS); NERC 41	Bern III	UKBAP (P)
52	Corky-Fruited Water-Dropwort	Oenanthe pimpinelloides	Duryard Valley Park	2002	SX916951			DN3
53	Stoat	Mustela erminea	Wrefords Lane, Exeter	2001	SX916952		Bern III	
54	Primrose	Primula vulgaris	Barton Place Wood	1989	SX916955			DBAP
55	Rhododendron	Rhododendron ponticum	Barton Place Wood	1989	SX916955	WCA 9		
56	Roe Deer	Capreolus capreolus	Barton Place Wood	1989	SX916955	DA	Bern III	
57	Small Pearl-bordered Fritillary	Boloria selene	Barton Place Wood	1989	SX916955	NERC 41		UKBAP (P); Decline
58	Willow Warbler	Phylloscopus trochilus	Barton Place Wood	1989	SX916955			Amber
59	Dingy Skipper	Erynnis tages	Duryard Valley Park	1994	SX917947	NERC 41		UKBAP (P); Decline
60	Dot Moth	Melanchra persicariae	Duryard Valley Park	1998	SX917947	NERC 41		UKBAP (P)

No	Common Name	Scientific Name	Locality	Year	Grid Reference	Uk Protection	International Protection	Status
61	Lackey	Malacosoma neustria	Duryard Valley Park	1998	SX917947	NERC 41		UKBAP (P)
62	Mottled Rustic	Caradrina morpheus	Duryard Valley Park	1998	SX917947	NERC 41		UKBAP (P)
63	Purple Hairstreak	Quercusia quercus	Duryard Valley Park	1992-1993	SX917947			Decline
64	Shoulder-Striped Wainscot	Mythimna comma	Duryard Valley Park	1998	SX917947	NERC 41		UKBAP (P)
65	Wall	Lasiommata megera		1992	SX917947	NERC 41		UKBAP (P)
66	White Admiral	Ladoga camilla	Duryard Valley Park	1994	SX917947	NERC 41		Decline
67	Eurasian Badger	Meles meles	Duryard Valley Park	2011	SX917950	WCA 6, BA	Bern III	
68	Indet. Deer	Cervidae	Duryard Valley Park	2011	SX917950	DA	Bern III	
69	Slow-worm	Anguis fragilis	Duryard Valley Park	2011	SX917950	WCA 5 (KIS); NERC 41	Bern III	UKBAP (P)
70	Common Pipistrelle	Pipistrellus pipistrellus	University of Exeter - woodland adjacent to Amory Building	2009	SX918941	WCA 5, 6	EC IVa; Bern III, Bonn II	
71	Eurasian Badger	Meles meles	Exeter. Stocker Road, off Prince of Wales Road, just before the University of Exeter's Great Hall.	2001	SX918941	WCA 6, BA	Bern III	
72	Flowering Rush	Butomus umbellatus	Exeter University Compartment 1. (Exeter Survey 2002.)	2002	SX918941			DN1
73	Fringed Water-Lily	Nymphoides peltata	Exeter University Compartment 1. (Exeter Survey 2002.)	2002	SX918941			NS; DN1; DR
74	Spiked Water-Milfoil	Myriophyllum spicatum	Exeter University Compartment 1. (Exeter Survey 2002.)	2002	SX918941			DN1

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75	White Water-Lily	Nymphaea alba	Exeter University Compartment 1. (Exeter Survey 2002.)	2002	SX918941			DN1
76	Eurasian Badger	Meles meles	University of Exeter - Laver Building	2009	SX918942	WCA 6, BA	Bern III	
77	Brown Argus	Aricia agestis	Duryard Valley Park	1994	SX918946			Decline
78	Grizzled Skipper	Pyrgus malvae	Duryard Valley Park	1994	SX918946	NERC 41		UKBAP (P); Decline
79	Small Heath	Coenonympha pamphilus		1994	SX918946	NERC 41		UKBAP (P)
80	Corky-Fruited Water-Dropwort	Oenanthe pimpinelloides	Duryard Valley Park	2011	SX918947			DN3
81	Eurasian Badger	Meles meles	Duryard Valley Park; Belvidere Meadows Nature Reserve	2009	SX918947	WCA 6, BA	Bern III	
82	Primrose	Primula vulgaris	Duryard Valley Park	2011	SX918947			DBAP
83	White Admiral	Ladoga camilla	Duryard Valley Park	1994-1997	SX918948	NERC 41		Decline
84	Corky-Fruited Water-Dropwort	Oenanthe pimpinelloides	Duryard Valley Park	2002	SX918949			DN3
85	Primrose	Primula vulgaris	Duryard Valley Park	2002	SX918949			DBAP
86	Eurasian Badger	Meles meles	A396 just outside Exeter	2008	SX918959	WCA 6, BA	Bern III	
87	Japanese Knotweed	Fallopia japonica	Cowley Bridge to Stoke Canon Road, Exeter. About three-quarters of a mile from Cowley Bridge.	2004	SX918959	WCA 9		
88	Brown Long-eared Bat	Plecotus auritus	Exeter	1988-1991	SX9194	WCA 5, 6; NERC 41	EC IVa; Bern II; Bonn II	UKBAP (P)
89	Common Pipistrelle	Pipistrellus pipistrellus	Exeter	1995	SX9194	WCA 5, 6	EC IVa; Bern III, Bonn II	

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90	Brown Long-eared Bat	Plecotus auritus	Exeter	1993	SX9195	WCA 5, 6; NERC 41	EC IVa; Bern II; Bonn II	UKBAP (P)
91	Common Pipistrelle	Pipistrellus pipistrellus	Exeter	1994-1996	SX9195	WCA 5, 6	EC IVa; Bern III, Bonn II	
92	Fat Duckweed	Lemna gibba	By river Exe	1993	SX9195			DN2
93	Flowering Rush	Butomus umbellatus	River Exe, South of Upton Pyne	1994	SX9195			DN1
94	Lesser Horseshoe Bat	Rhinolophus hipposideros	Exeter	1993	SX9195	WCA 5, 6; NERC 41	EC IIa, IVa; Bern II; Bonn II	UKBAP (P)
95	Yellow Loosestrife	Lysimachia vulgaris	By river Exe	1993	SX9195			DN2
96	Corky-Fruited Water-Dropwort	Oenanthe pimpinelloides	Duryard Valley Park Area 5. (Exeter Survey 2002.)	2002	SX919945			DN3
97	Eurasian Badger	Meles meles	Duryard Valley Park; Belvidere Meadows Nature Reserve	2009	SX919946	WCA 6, BA	Bern III	
98	Soprano Pipistrelle	Pipistrellus pygmaeus	Duryard Wood	2002	SX919946	WCA 5, 6; NERC 41	EC IVa; Bern III, Bonn II	UKBAP (P)
99	Marsh Fritillary	Euphydryas aurinia	Duryard Valley Park	1992	SX919947	WCA 5; NERC 41	EC IIa; Bern II	UKBAP (P); DBAP; Nb
100	Eurasian Badger	Meles meles	University of Exeter - Innovation Centre	2009	SX920944	WCA 6, BA	Bern III	
101	West European Hedgehog	Erinaceus europaeus	Heavitree	1999	SX920944	WCA 6; NERC 41	Bern III	UKBAP (P)
102	Butcher's-Broom	Ruscus aculeatus	Belvidere Road, Exeter. (RHS going down from the top.)	1998	SX920945		EC Vb	
103	Eurasian Badger	Meles meles	Exeter. Exeter University main campus garden, Duryard Valley.	2004	SX920945	WCA 6, BA	Bern III	
104	Roe Deer	Capreolus capreolus	Exeter. Exeter University main campus garden, Duryard Valley.	2004	SX920945	DA	Bern III	

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105	Wild Service-Tree	Sorbus torminalis	Belvidere Road, Exeter. (RHS going down from the top.)	1998	SX920945			DN2
106	Brown Hairstreak	Thecla betulae	Duryard Valley Park	1996	SX920946	WCA 5 (S); NERC 41		UKBAP (P); Nb
107	Corky-Fruited Water-Dropwort	Oenanthe pimpinelloides	Belvidere Meadows, Duryard Valley Park.	2003	SX920946			DN3
108	Cyclamen	Cyclamen hederifolium	Belvidere Road, Exeter.	2000	SX920946			DN1; RDB2
109	Dingy Skipper	Erynnis tages	Duryard Valley Park	1996-1999	SX920946	NERC 41		UKBAP (P); Decline
110	Eurasian Badger	Meles meles	Belvidere Meadows, Duryard Valley Park.	2003	SX920946	WCA 6, BA	Bern III	
111	Buff Ermine	Spilosoma luteum	Belvidere Meadows LNR	1997	SX920947	NERC 41		UKBAP (P)
112	Cloaked Carpet	Euphyia biangulata	Belvidere Meadows LNR	1997	SX920947			Nb
113	Common Pipistrelle	Pipistrellus pipistrellus	Belvidere Meadows LNR	1999	SX920947	WCA 5, 6	EC IVa; Bern III, Bonn II	
114	Corky-Fruited Water-Dropwort	Oenanthe pimpinelloides	Belvidere Meadows LNR	2001	SX920947			DN3
115	Dark-Barred Twin-Spot Carpet	Xanthorhoe ferrugata	Belvidere Meadows LNR	1997	SX920947	NERC 41		UKBAP (P)
116	Jersey Tiger	Euplagia quadripunctaria	Belvidere Meadows LNR	1997	SX920947			Nb
117	Lackey	Malacosoma neustria	Belvidere Meadows LNR	1997	SX920947	NERC 41		UKBAP (P)
118	Long-Winged Conehead	Conocephalus discolor	Belvidere Road (Belvidere Meadows)	2006	SX920947			Na

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119	Mottled Rustic	Caradrina morpheus	Belvidere Meadows LNR	1997	SX920947	NERC 41		UKBAP (P)
120	Roe Deer	Capreolus capreolus	Belvidere Road	2000	SX920947	DA	Bern III	
121	Rosy Minor	Mesoligia literosa	Belvidere Meadows LNR	1997	SX920947	NERC 41		UKBAP (P)
122	Rustic	Hoplodrina blanda	Belvidere Meadows LNR	1997	SX920947	NERC 41		UKBAP (P)
123	Sallow	Xanthia icteritia	Belvidere Meadows LNR	1997	SX920947	NERC 41		UKBAP (P)
124	Shoulder-Striped Wainscot	Mythimna comma	Belvidere Meadows LNR	1997	SX920947	NERC 41		UKBAP (P)
125	Small Phoenix	Ecliptopera silaceata	Belvidere Meadows LNR	1997	SX920947	NERC 41		UKBAP (P)
126	Small Square-Spot	Diarsia rubi	Belvidere Meadows LNR	1997	SX920947	NERC 41		UKBAP (P)
127	Wall	Lasiommata megera	Duryard valley park	2001	SX920947	NERC 41		UKBAP (P)
128	Wasp Spider	Argiope bruennichi	Belvidere Road (Belvidere Meadows)	2006	SX920947			Na
129	a Bat	Chiroptera	Belvidere Meadows LNR	2000	SX920947	WCA 5, 6	EC IVa; Bonn II	
130	Common Toad	Bufo bufo	Argyll Rd, Exeter	1999	SX920949	WCA 5 (S); NERC 41	Bern III	UKBAP (P)
131	Nightingale	Luscinia megarhynchos	Back garden at Argyll Road, Exeter.	2000	SX920949			Amber
132	Swift	Apus apus	Argyll Road, Exeter	2011	SX920949			Amber
133	Dingy Skipper	Erynnis tages	Stoke Hill	2004	SX920950	NERC 41		UKBAP (P); Decline
134	Primrose	Primula vulgaris	Duryard valley park	2002	SX920950			DBAP

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135	Purple Hairstreak	Quercusia quercus	Stoke Hill	2009	SX920950			Decline
136	White Admiral	Ladoga camilla	Stoke woods	2000	SX920950	NERC 41		Decline
137	Corky-Fruited Water-Dropwort	Oenanthe pimpinelloides	Duryard valley park	2002	SX920951			DN3
138	Grass Vetchling	Lathyrus nissolia	Duryard valley park	2002	SX920951			DN1
139	Eurasian Badger	Meles meles	Exeter. On A396 Stoke Road, 0.4 miles from Cowley roundabout, travelling to Stoke Canon.	2002	SX920960	WCA 6, BA	Bern III	
140	Corky-Fruited Water-Dropwort	Oenanthe pimpinelloides	Exeter University Compartment 7. (Exeter Survey 2002.)	2002	SX921944			DN3
141	Corncockle	Agrostemma githago	Exeter University Compartment 6. (Exeter Survey 2002.)	2002	SX921944			DN1; ext in Wild
142	Cornflower	Centaurea cyanus	Exeter University Compartment 6. (Exeter Survey 2002.)	2002	SX921944	NERC 41		UKBAP (P); NS; DN1; DR
143	Common Pipistrelle	Pipistrellus pipistrellus	University of Exeter - Green Society Allotment	2009	SX921945	WCA 5, 6	EC IVa; Bern III, Bonn II	
144	Dingy Skipper	Erynnis tages	Duryard valley park	1995	SX921946	NERC 41		UKBAP (P); Decline
145	Primrose	Primula vulgaris	Garden at Argyll Road, Exeter	2000	SX921948			DBAP
146	Slender Tare	Vicia parviflora	Garden at Argyll Road, Exeter	2000	SX921948			NS; DN1
147	Hazel Dormouse	Muscardinus avellanarius	Stoke Woods	1999	SX921958	WCA 5, 6; NERC 41	EC IIa; Bern III	UKBAP (P); DBAP
148	a Bat	Chiroptera	Hill Crest Park, Pennsylvania, Exeter	2006	SX922945	WCA 5, 6	EC IVa; Bonn II	
149	Primrose	Primula vulgaris	Belvidere Road, Exeter.	2000	SX922946			DBAP

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150	Corky-Fruited Water-Dropwort	Oenanthe pimpinelloides	Argyll Road	2005	SX922948			DN3
151	Cornflower	Centaurea cyanus	Argyll Road	2005	SX922948	NERC 41		UKBAP (P); NS; DN1; DR
152	Grass Snake	Natrix natrix	Argyll Road; Land opposite Belvedere Meadows	2009	SX922948	WCA 5 (KIS); NERC 41	Bern III	UKBAP (P)
153	Grass Vetchling	Lathyrus nissolia	Argyll Road	2005	SX922948			DN1
154	Whitethroat	Sylvia communis	Land opposite Belvedere Meadows; Argyll Road	2009	SX922948			Amber
155	Barn Owl	Tyto alba	Argyll Road, Exeter	2002-2005	SX922949	WCA 1, 9		DBAP; Amber
156	Common Bullfinch	Pyrrhula pyrrhula	Argyll Road, Exeter	2001-2004	SX922949	NERC 41		UKBAP (P); Amber
157	Common Frog	Rana temporaria	Argyll Road, Exeter	2001	SX922949	WCA 5 (S)	EC Va; Bern III	
158	Dunnock	Prunella modularis	Argyll Road, Exeter	2001-2005	SX922949			Amber
159	Eurasian Badger	Meles meles	Argyll Road, Exeter	2004-2005	SX922949	WCA 6, BA	Bern III	
160	Grass Snake	Natrix natrix	Exeter	1959	SX922949	WCA 5 (KIS); NERC 41	Bern III	UKBAP (P)
161	Green Woodpecker	Picus viridis	Argyll Road, Exeter	2002-2004	SX922949			Amber
162	Herring Gull	Larus argentatus	Argyll Road, Exeter	2001	SX922949			Red
163	House Martin	Delichon urbicum	Argyll Road, Exeter	2002-2004	SX922949			Amber

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164	Jersey Tiger	Euplagia quadripunctaria	Argyll Road, Exeter	2002-2004	SX922949			Nb
165	Kestrel	Falco tinnunculus	Argyll Road, Exeter	2002-2005	SX922949			Amber
166	Linnet	Linaria cannabina	Argyll Road, Exeter	2003	SX922949			UKBAP (P); Red
167	Little-Robin	Geranium purpureum	Argyll Road, Exeter	2000	SX922949			NR; DN1
168	Marsh Tit	Poecile palustris	Argyll Road, Exeter	2004-2005	SX922949	NERC 41		UKBAP (P); Red
169	Roe Deer	Capreolus capreolus	Argyll Road, Exeter	2002	SX922949	DA	Bern III	
170	Round-Leaved Crane's-Bill	Geranium rotundifolium	Argyll Road, Exeter	2000	SX922949			DN3
171	Small Blue	Cupido minimus	Argyll Road, Exeter	2004	SX922949	WCA 5 (S); NERC 41		UKBAP (P); Decline
172	Song Thrush	Turdus philomelos	Argyll Road, Exeter	2001-2005	SX922949			UKBAP (P); Red
173	Stag Beetle	Lucanus cervus	Argyll Road, Exeter	2004	SX922949	WCA 5 (S); NERC 41	EC IIa; Bern III	UKBAP (P); Na
174	Starling	Sturnus vulgaris	Argyll Road, Exeter	2002	SX922949			Red
175	Swallow	Hirundo rustica	Argyll Road, Exeter	2002-2005	SX922949			Amber
176	Swift	Apus apus	Argyll Road, Exeter	2002-2005	SX922949			Amber
177	Willow Warbler	Phylloscopus trochilus	Argyll Road, Exeter	2003	SX922949			Amber

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178	a Bat	Chiroptera	Argyll Road, Exeter	2004	SX922949	WCA 5, 6	EC IVa; Bonn II	
179	Corky-Fruited Water-Dropwort	Oenanthe pimpinelloides	Duryard Valley Park; Area 17	2002	SX922950			DN3
180	Roe Deer	Capreolus capreolus	Stoke	1999	SX922958	DA	Bern III	
181	Dunnock	Prunella modularis	Garden at Doriam Close, Exeter.	2004	SX923946			Amber
182	Fieldfare	Turdus pilaris	Garden at Doriam Close, Exeter.	2004	SX923946	WCA 1		Red
183	Grass Snake	Natrix natrix	Doriam Close, Exeter.	2004	SX923946	WCA 5 (KIS); NERC 41	Bern III	UKBAP (P)
184	Green Woodpecker	Picus viridis	Garden at Doriam Close, Exeter.	2004	SX923946			Amber
185	Redwing	Turdus iliacus	Garden at Doriam Close, Exeter.	2004	SX923946	WCA 1		Red
186	Song Thrush	Turdus philomelos	Garden at Doriam Close, Exeter.	2004	SX923946			UKBAP (P); Red
187	Common Frog	Rana temporaria	Belvidere Rd, Exeter	1997-1999	SX923947	WCA 5 (S)	EC Va; Bern III	
188	Common Toad	Bufo bufo	Belvidere Rd, Exeter	1997-1999	SX923947	WCA 5 (S); NERC 41	Bern III	UKBAP (P)
189	Japanese Knotweed	Fallopia japonica	Outside Belvidere Road, Exeter.	2002	SX923947	WCA 9		
190	Slow-worm	Anguis fragilis	Belvidere Rd, Exeter	1999-2003	SX923947	WCA 5 (KIS); NERC 41	Bern III	UKBAP (P)
191	a Bat	Chiroptera	Belvidere Road, Exeter	2008	SX923947	WCA 5, 6	EC IVa; Bonn II	
192	Corky-Fruited Water-Dropwort	Oenanthe pimpinelloides	Duryard Valley Park	2002-2011	SX923951			DN3
193	Roe Deer	Capreolus capreolus	Stoke Woods: very near top car park on entrance to woods	2001	SX923956	DA	Bern III	

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194	Roe Deer	Capreolus capreolus	Stoke Woods	1999	SX923958	DA	Bern III	
195	Corky-Fruited Water-Dropwort	Oenanthe pimpinelloides	Exeter University Compartment 8. (Exeter Survey 2002.)	2002	SX924944			DN3
196	Eurasian Badger	Meles meles	Higher Hoopern Lane	2000	SX924944	WCA 6, BA	Bern III	
197	Slow-worm	Anguis fragilis	Higher Hoopern Lane, Pennsylvania, Exeter.	2005	SX924944	WCA 5 (KIS); NERC 41	Bern III	UKBAP (P)
198	Brown Hare	Lepus europaeus	Off Pennsylvania Road, Exeter	2013	SX924950	NERC 41		UKBAP (P); DBAP
199	a Bat	Chiroptera	Panorama, Pennsylvania Road, Exeter.	2005	SX924952	WCA 5, 6	EC IVa; Bonn II	
200	Hazel Dormouse	Muscardinus avellanarius	Stoke Woods	1999	SX924957	WCA 5, 6; NERC 41	EC IIa; Bern III	UKBAP (P); DBAP
201	Common Frog	Rana temporaria	Pennsylvania Road, Exeter (garden pond)	2013	SX925947	WCA 5 (S)	EC Va; Bern III	
202	Grass Snake	Natrix natrix	Allotment at Mincinglake Rd Exeter	2001	SX925951	WCA 5 (KIS); NERC 41	Bern III	UKBAP (P)
203	Slow-worm	Anguis fragilis	Allotments at Mincinglake rd, Exeter	2000-2001	SX925951	WCA 5 (KIS); NERC 41	Bern III	UKBAP (P)
204	Common Bullfinch	Pyrrhula pyrrhula	Hill Top Stables; Stoke Hill Bridleway	1989	SX925952	NERC 41		UKBAP (P); Amber
205	Corky-Fruited Water-Dropwort	Oenanthe pimpinelloides	Hill Top Stables; Hay Meadow	1989	SX925952			DN3

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206	Eurasian Badger	Meles meles	Hill Top Stables; Stoke Hill Bridleway	1989	SX925952	WCA 6, BA	Bern III	
207	Little Mouse-ear	Cerastium semidecandrum	Hill Top Stables; Stoke Hill Camp	1989	SX925952			DN2
208	Primrose	Primula vulgaris	Hill Top Stables; Stoke Hill Bridleway	1989	SX925952			DBAP
209	Roe Deer	Capreolus capreolus	Hill Top Stables; Stoke Hill Bridleway	1989	SX925952	DA	Bern III	
210	Whitethroat	Sylvia communis	Hill Top Stables; Stoke Hill Bridleway	1989	SX925952			Amber
211	Wild Service-Tree	Sorbus torminalis	Hill Top Stables; Stoke Hill Bridleway	1989	SX925952			DN2
212	Willow Warbler	Phylloscopus trochilus	Hill Top Stables; Stoke Hill Bridleway	1989	SX925952			Amber
213	Common Bullfinch	Pyrrhula pyrrhula	Pennsylvania Road, Exeter (garden)	2012	SX926946	NERC 41		UKBAP (P); Amber
214	Eurasian Badger	Meles meles	Sylvan Road, Exeter	1999-2000	SX9294	WCA 6, BA	Bern III	
215	Purple Hairstreak	Quercusia quercus	Stoke Woods	1990-2000	SX9295			Decline
216	Small Pearl-bordered Fritillary	Boloria selene	Stoke Woods	1994	SX9295	NERC 41		UKBAP (P); Decline

NERC 41 **NERC Act (2006) Section 41:** Species listed under Section 41 of the Natural Environment and Rural Communities Act (2006). These are the species found in England which have been identified as requiring action under the UK BAP. All local authorities and other public authorities in England and Wales have a duty to promote and enhance biodiversity in all of their functions.

WCA 1 **Wildlife and Countryside Act (1981) Schedule 1:** birds which are protected by special penalties at all times.

WCA 5	**Wildlife and Countryside Act (1981) Schedule 5:** species protected against killing, injury, disturbance and handling.
WCA 5 (S)	**Wildlife and Countryside Act (1981) Schedule 5: (sale):** species protected against sale only.
WCA 5 (KIS)	**Wildlife and Countryside Act (1981) Schedule 5: (killing & injury):** species protected against killing, injury and sale only.
WCA 6	**Wildlife and Countryside Act (1981) Schedule 6:** animals (other than birds) which may not be killed or taken by certain methods
WCA 9	**Wildlife and Countryside Act (1981) Schedule 9:** animals and plants for which release into the wild is prohibited.
BA	**Protection of Badgers Act 1992:** badgers may not be deliberately killed, persecuted or trapped except under licence. Badger setts may not be damaged, destroyed or obstructed.
DA	**Deer Act 1991:** deer protected under the Deer Act.
Bern II	**Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) Appendix II:** Special protection for listed animal species and their habitats.
Bern III	**Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) Appendix III:** Exploitation of listed animal species to be subject to regulation
ECIIa, IIb	**EC Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (Habitats & Species Directive) Annex IIa and IIb:** Designation of protected areas for animal and plant species listed.
ECIIIa, IIIb	**EC Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (Habitats & Species Directive) Annex IIIa and IIb:** Species used as criteria for designating Special Areas of Conservation (SACs).

ECIVa, IVb **EC Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (Habitats & Species Directive) Annex IVa:** Exploitation of listed animals and plants to be subject to management if necessary.

ECVa, Vb **EC Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (Habitats & Species Directive) Annex Va and Vb:** Exploitation of listed animals and plants to be subject to management if necessary.

Bonn II **Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention) Appendix II:** Range states encouraged to conclude international agreements to benefit species listed.

UKBAP(P) **UK Priority Species (Short and Middle Lists - UK Biodiversity steering Group Report 1995)** i.e. species that are globally threatened and rapidly declining in the UK (by more than 50% in the last 25 years). Has a Species Action Plan.

DBAP **Devon Biodiversity Action Plan species:** these have been identified as species of key conservation concern in Devon.

NR **Nationally Rare:** 1-15 10km squares in Atlas of British Flora 1962.

NS **Nationally Scarce:** 15-100 10km squares in Atlas of British Flora 1962.

Devon Notable Species: Selected species recorded from over 50 2km squares in the Atlas of Devon Flora 1984 (R.B. Ivimey-Cook, Department of Biological Sciences, The University of Exeter).

DN1 **Devon Notable[1]:** 1-25 2 km squares in Atlas of Devon Flora 1984.

DN2 **Devon Notable[2]:** 26-50 2 km squares in Atlas of Devon Flora 1984.

DN3 **Devon Notable[3]:** Selected species recorded from over 50 2 km squares in Atlas of Devon Flora 1984.

DR **Devon Rarity:** native species recorded from 3 or fewer localities within Devon.

Na	**Nationally Notable A:** known from 30 or fewer 10km squares. Taken from the Invertebrate Site Register.
Nb	**Nationally Notable B:** known from 100 or fewer 10km squares. Taken from the Invertebrate Site Register.
Decline	Substantial local decline in Devon
Red List	Bird species of high conservation concern, such as those whose population or range is rapidly declining, recently or historically, and those of global conservation concern.
Amber List	Bird species of medium conservation concern, such as those whose population is in moderate decline, rare breeders, internationally important and localised species and those of unfavourable conservation status in Europe.
RDB2	**Red Data Book 2:** Vulnerable. Taxa believed likely to move into the endangered category in the near future if casual factors continue to operate. Includes taxa which are still abundant but are under threat from serious adverse factors throughout their range.

EXTINCT IN THE WILD (EW)
A taxon is Extinct in the Wild when it is known only to survive in cultivation, in captivity or as a naturalized population (or populations) well outside the past range. A taxon is presumed Extinct in the Wild when exhaustive surveys in known and/or expected habitat, at appropriate times (diurnal, seasonal, annual), throughout its historic range have failed to record an individual. Surveys should be over a time frame appropriate to the taxon's life cycle and life form.

Greater Horseshoe Bat Consultation Zones:

Your site is not within a Strategic Flyway or Sustenance Zone.

Strategic Flyways: these make up a key network of flight path zones connecting the component roosts of the South Hams SAC. The strategic flyways have been made 500 metres wide to provide a combination of alternative suitable routes. Flyways subject to a pinch point scenario are particularly susceptible to development pressure.

Sustenance Zone: these are key feeding and foraging zones. They consist of a 4km radius circle centred on each of the component roosts of the South Hams SAC (with the exception of Berry Head, on a peninsula which has a sustenance area of a circular sector approximately equal in area to a 4km radius circle). Existing urban non-vegetated areas should not be considered as key foraging areas.

Great Crested Newt Consultation Zones:

Your site is not in a Great Crested Newt Consultation Zone, but there is one within 1km of your site. These are two kilometre buffers around existing and historical (post 1970) great crested newt records. You may need to carry out great crested newt survey if your site is within one of these zones.

For more information please go to: http://www.devon.gov.uk/index/environmentplanning/natural_environment/wildlife.htm.

DEVON BAT GROUP

TEL 07971 425 288

EMAIL devonbatgrouprecords@gmail.com

C/o BROAD VIEW FARM, UPLOWMAN, TIVERTON, DEVON, EX16 7DN

Andy Charles
Bluebell Ecology Ltd

9th December 2014

BAT RECORD SEARCH RESULTS OF STUDY AREA: Belle Vue Road, Exeter, EX4 5BP. (Centred SX 918 951)

Records to end of 2013. ('No records' does not indicate the absence of bat species in that area.)
N.B. Standard search: 2km radius from study area. This is within flight distance for all bats entering the study area.

Age of record: Considering the longevity of some species and the loyalty of colonies to roosts, all records are included. Where a date range is stated, this indicates the range of dates for which we hold records, and does not imply a cessation of occupancy.

Devon Bat Group is registered with Data Protection. Only 4 figure grid references are provided. Data provided is the property of Devon Bat Group and may only be used in connection with this study.

GRID REF	SPECIES	ROOST STATUS	RECORD	YEAR
SX9095	Brown Long-Eared	Unknown	House Roost	1996
SX9096	Soprano Pipistrelle	Grounded	Grounded Bat	2004
SX9096	Soprano Pipistrelle	Breeding Site	House Roost	2004
SX9096	Soprano Pipistrelle	Breeding Site	House Roost	2002
SX9096	Noctule	Feeding/Flying	Flying Bat	2002
SX9096	Unknown	Unknown	House Roost	1996
SX9193	Common Pipistrelle	Breeding Site	House Roost	1992-1998
SX9193	Lesser Horseshoe	Hibernation Site	Building Roost	1990
SX9194	Brown Long-Eared	Unknown	Building Roost	1988
SX9194	Long-Eared Species	Unknown	building roost	2012
SX9194	Brown Long-Eared	Unknown	Building Roost	1991
SX9194	Brown Long-Eared	Unknown	Building Roost	1990
SX9194	Common Pipistrelle	Unknown	Building Roost	1995
SX9195	Common Pipistrelle	Breeding Site	House Roost	1994-1996
SX9195	Brown Long-Eared	Unknown	House Roost	1993
SX9195	Lesser Horseshoe	Unknown	House Roost	1993
SX9293	Unknown	Unknown	Building Roost	1993
SX9293	Common Pipistrelle	Unknown	Tree Roost	2004
SX9294	Common pipistrelle	Feeding/Flying	Flying Bat	2012

SX9294	Noctule	Feeding/Flying	Flying Bat	2012
SX9294	Pipistrelle Species	Feeding/Flying	Flying Bat	2012
SX9295	Brown Long-Eared	Breeding Site	House Roost	2000
SX9296	Common pipistrelle	Feeding/Flying	Flying Bat	2007
SX9296	Noctule	Feeding/Flying	Flying Bat	2007
SX9296	Pipistrelle Species	Feeding/Flying	Flying Bat	2007
SX9296	Serotine	Feeding/Flying	Flying Bat	2007
SX9296	Soprano pipistrelle	Feeding/Flying	Flying Bat	2007
SX9296	Daubenton's	Feeding/Flying	Flying Bat	2007
SX9394	Common Pipistrelle	Breeding Site	House Roost	1997

COMMENT

In any ecological appraisal, we would always expect that a 'best practice' contemporary bat survey of the site including buildings, trees, waterways and hedgerow commuting and feeding bats, would be carried out by a qualified bat ecologist at appropriate periods.

Alastair Blake
For and on behalf of the Devon Bat Group

Schwegler 1FE Bat Access Panel with Optional Back Panel

Material: Woodcrete (75% wood sawdust, concrete and clay mixture)
Width: 300mm
Height: 300mm
Depth: 80mm
Weight: 7.8kg
Entrance: 20mm slit

Position: Within external walls with a southerly aspect, beneath eves or approximately 3m or higher from ground level.

Additional Information: Installation of access panel alone would allow bats to access into a building, potentially into a cavity wall spaces or loft spaces.

By fitting the optional back panel the Schwegler 1FE becomes a self contained bat roosting unit at the dimensions shown above.

Schwegler 1FR Bat Tube

Material: Woodcrete (75% wood sawdust, concrete and clay mixture)
Width: 200mm
Height: 475mm
Depth: 125mm
Entrance Width: 150mm
Entrance Depth: 20mm
Weight: 9.5kg

Position: Within external walls with a southerly aspect, beneath eves or approximately 3m or higher from ground level.

Ibstock Enclosed Bat Box 'B'

Available in red, buff and blue brick finish, and two sizes:

	Small	Large
Height:	215mm	290mm
Width:	215mm	215mm
Depth:	105mm	105mm
Weight:	5.8kg	8kg

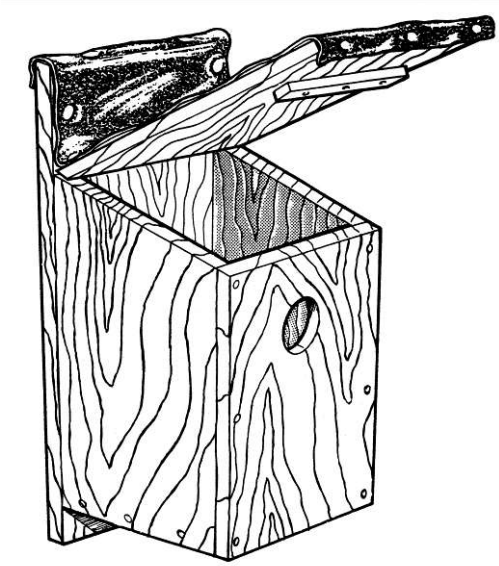
Position: Within external brick walls.

APPENDIX 3 EXAMPLES OF INBUILT BIRD NESTING PROVISIONS

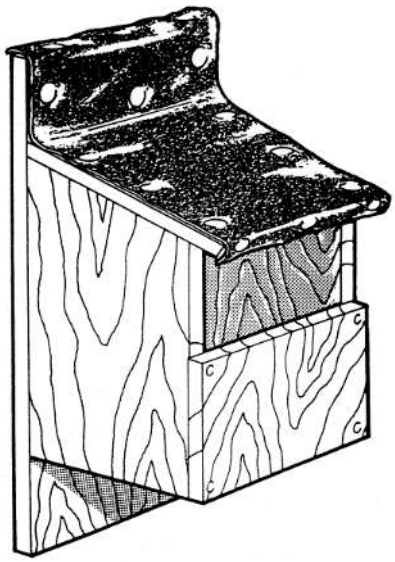
Wooden & Woodcrete Bird Boxes

Height: circa. 200mm
Width: circa. 200mm
Depth: circa. 130mm
Entrance hole: 30mm diameter or open fronted circa 80mm by 80mm

Position: Upon external walls or mature trees with a northerly aspect, at approximately 2m or higher from ground level.



Hole entrance boxes suitable for house sparrows, blue tit & great tit



Open fronted boxes suitable for wren, robin and pied wagtail

Schwegler Sparrow Terrace

Suitable for: House sparrows and individual blue & great tits
Material: Woodcrete
Height: 245mm
Width: 430mm
Depth: 300mm
Weight: 7kg

Position: At a height of at least 2m upon external wall

Schwegler House Martin Nesting Cups

Suitable for: House martins
Material: Woodcrete with stainless steel fittings
Height:175mm
Width: 430mm
Depth:175mm
Weight:5.5Kg

Positioning: On unobstructed walls directly beneath eaves, at a height of 2m or above

Schwegler Swift Nesting Boxes

Suitable for: Common swifts.
Material: Woodcrete
Height:240mm
Width: 180mm
Depth:180mm
Weight:7.3Kg
Entrance hole: 55 x 33

Position: Within external walls with a northerly aspect, beneath eves, at a height of 2m or above

Bee Brick
Each bee brick includes nesting compartments for solitary nesting bees, including for egg laying and hibernation.

Bee bricks to be positioned within southerly elevations, which includes part or full sun, between 1m to 2m above ground level, and ideally facing garden or boundary habitats.

Bee Brick - case in concrete: 215mm x 105mm x 65mm
http://greenandbluebuild.co.uk/product/bee-brick/

Bee brick & bee block incorporated into an external brick wall

APPENDIX 5 EXTENDED PHASE 1 HABITAT SURVEY MAP

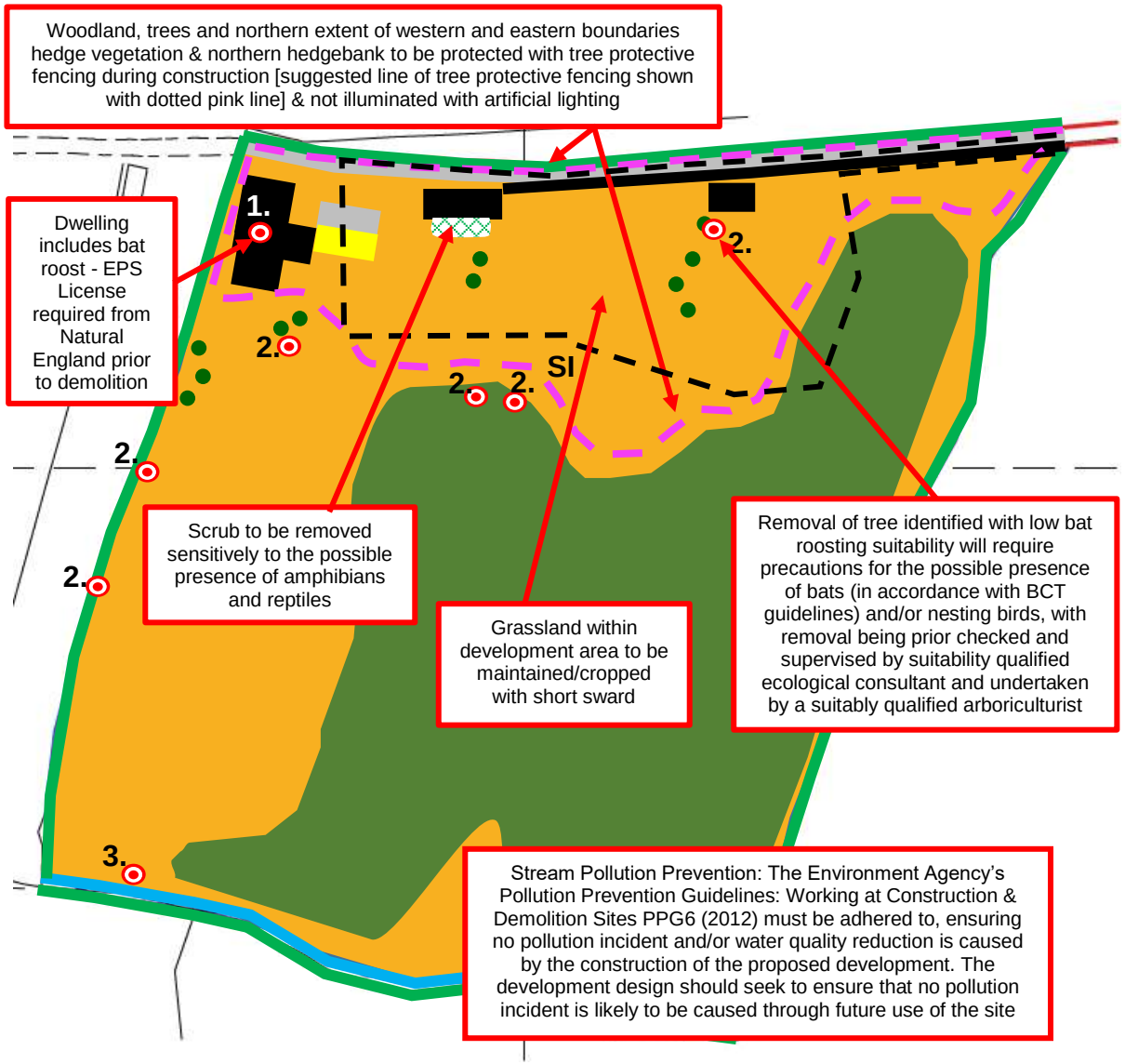
Extended Phase 1 Habitat Survey Map rev00

Client:	Mr. Dan Currey
Site:	Land at Bell Vue
Scale:	DNS
Date:	February 2018

Code	Feature
	Hedgerow, broadleaved
	Fence
	Stream
SI	Semi-improved grassland
	Woodland
	Scrub
	Amenity grassland
	Hardstanding
	Building
	Standing tree, broadleaved
	Target note

Target Note	
1	Bat roost
2	Tree with potential roost feature
3	Badger sett

APPENDIX 6 CONSTRAINTS PLAN



Constraints Plan rev00

Client:	Mr. Dan Currey
Site:	Land at Bell Vue
Scale:	DNS
Date:	February 2018

Code	Feature
	Hedgerow, broadleaved
	Fence
	Stream
	Tree protective fencing
	Development area
SI	Semi-improved grassland
	Woodland
	Scrub
	Amenity grassland
	Hardstanding
	Building
	Standing tree, broadleaved
	Target note

Target Note	
1	Bat roost
2	Tree with potential roost feature
3	Badger sett

APPENDIX 7 MITIGATION & OPPORTUNITIES PLAN

Modified from Squirrel Design dwg. no BP460_2

THE UNIVERSITY OF WARWICK

EcoWarwicker
Ecological Forensics

12th January 2015

Re: Bat Identification Results for Andy Charles, Bluebell Ecology Ltd.

Ref:

Bat job number 004782 received 05/01/2015
Sample labelled: Beile Vue House, Exeter
PCR amplification successful. DNA sequence:
CCGAAATTTCATCAAGATGAGATATTTGATGGGGCAGGAAGGTCGATAAATGAGCTA
TTAATAATTTTTACTAAGGGGTGGGATTTTCGAATGTTGGTCAT
Phylogenetic analysis identification: *Myotis mystacinus*

Confirmed by maximum likelihood, maximum parsimony, bootstrap 100%.

Best regards,

Robin Allaby
Associate Professor.

The results and conclusions in this report are based on an investigation of mtDNA sequence analysis. The results obtained have been reported with accuracy. The interpretation represents the most probable conclusion for the DNA sequence obtained rather than the sample provided given current levels of species data. It should be borne in mind that different circumstances might produce different results. Therefore, care must be taken with interpretation of the results especially if they are used as the basis for commercial recommendations.

Dr Robin Allaby

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