



**37 Hillside Road,
Portishead:
Ecological
Appraisal**

Date: 13 May 2020

For: Keynsham Property Ltd

Ref: eg20921

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ABBREVIATIONS

CEMP	Construction Ecological Management Plan
CIEEM	Chartered Institute of Ecology and Environmental Management
MAGIC	Multi-Agency Geographic Information for the Countryside
MHW	Mean High Water
MLW	Mean Low Water
NPPF	National Planning Policy Framework
OS	Ordnance Survey
SAC	Special Area of Conservation
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest

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EXECUTIVE SUMMARY

This appraisal presents the results of an extended Phase 1 Habitat Survey of a plot of land at 37 Hillside Road, Portishead. The site was surveyed on 4th February 2020. This appraisal aims to provide a baseline description of biodiversity onsite, outlines any ecological constraints to potential use of the site and provides advice on the protection and enhancement of ecological features on and adjacent to the site.

The site consists of a bungalow and associated garden situated on the edge of the settlement, with the Redcliffe Bay section of the Bristol Channel a short distance to the west.

In order to ensure that wildlife is protected during construction, a detailed Construction Ecological Management Plan should be prepared and provided to the main contractor. This will set out detailed measures for the protection of wildlife, in accordance with the findings of this report.

The site is within approximately 43m of the Severn Estuary, which is designated at a European and UK level for its important habitats, birds and fish species. Given the nature and scale of the proposal, which is for a minor development within an existing plot that does not require any additional land take, there is no risk of significant adverse effects on any of the features for which the Severn Estuary is designated.

The development proposal should include measures to provide new habitats for wildlife through the provision of bat roosting boxes, bird nesting boxes, invertebrate habitats and additional hedge planting.



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Site Boundary

ON BEHALF OF

Keynsham Property Ltd

PROJECT

37 Hillside Road, Portishead

SCALE

NTS

PROJECT NO

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DATE

Feb 2020

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TITLE

Figure 1: Site Location Plan

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1 INTRODUCTION

- 1.1 This appraisal presents the results of an extended Phase 1 Habitat Survey of a plot of land at Hillside Road, Portishead (Figure 1). The site was surveyed on 4th February 2020. This appraisal aims to provide a baseline description of biodiversity and outlines any ecological constraints to potential use of the site. It provides advice to the applicant in regard to the protection and enhancement of ecological features on or adjacent to the site.
- 1.2 The scope of the appraisal was based on the Guidelines for Preliminary Ecological Appraisal, published in 2012 by the Chartered Institute of Ecology and Environmental Management (CIEEM). This comprised a field survey to map and describe the habitats of the site, and an assessment of the site's potential to support any notable or protected species.
- 1.3 The purpose of this appraisal is to:
1. Describe the ecological baseline of the site and assess the importance of its ecological features (*e.g.* its habitats and species);
 2. Determine if any further, more detailed surveys are required;
 3. Identify any ecological constraints to the proposal and describe how negative ecological effects will be avoided; and
 4. Describe appropriate measures to mitigate negative ecological effects that cannot be avoided.
- 1.4 Further details of the survey and assessment methods are given in Section 4.

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2 SITE LOCATION AND GENERAL DESCRIPTION

- 2.1 The site is centred on Ordnance Survey (OS) grid reference ST439758 (Figure 1).

- 2.2 The site consists of a bungalow and associated garden situated on the edge of the settlement, with the Redcliffe Bay section of the Bristol Channel a short distance to the west.

3 LEGISLATION AND POLICY

Introduction

- 3.1 Wildlife in the UK is protected through European Directives, which are transposed into national legislation, supported by a range of national and local policy and guidance. Recent changes in planning policy and legislation have gone beyond site and species-specific protection to set broader goals for the conservation and enhancement of the natural environment, and halting the continued loss of biodiversity in the UK.
- 3.2 Development can contribute to these goals through, for example, protecting the best features of a site and making them a valued part of the site's new use, and by incorporating enhancements to improve the site's value for wildlife.
- 3.3 The sections below provide a brief guide to the principal legislation and policy that sets the terms of reference for ecological appraisals in the UK. This is not intended to be a full description of all the obligations enacted by the various referenced documents, which should be referred to in their original form for the full details.
- 3.4 It is the responsibility of those involved with the development works to ensure that wildlife protection and nature conservation legislation is complied with at every stage of the project. Such legislation applies even in the absence of related planning conditions.

Relevant Legislation

- 3.5 The principal pieces of legislation relating to wildlife that are of relevance to this report are:
1. *EU Habitats Directive (1992);*
 2. *EU Birds Directive (1979);*
 3. *Conservation of Habitats and Species (Amendment) Regulations 2017;*
 4. *The Wildlife and Countryside Act 1981 (as amended);*
 5. *The Countryside and Rights of Way Act 2000;*
 6. *The Natural Environment and Rural Communities Act 2006;*

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7. *The Protection of Badgers Act 1992* (which is extended under *The Hunting Act 2004*).

3.6 The main focus of much of this legislation is the protection of sites and species, the delineation of precisely how they are protected, and what actions would constitute an offence. This report provides guidance on whether any protected features are likely to be affected by the development proposal, and how offences under the legislation can be avoided.

3.7 The upcoming Environment Act is likely to introduce a requirement for development to provide a 10% net gain in biodiversity, as calculated using the Defra 2.0 metric.

Relevant Policy

3.8 Regional and local planning authorities are obliged to follow key principles to ensure that the potential impacts of planning decisions on biodiversity conservation are fully considered. *The National Planning Policy Framework, Feb 2019 (NPPF)* sets out the Government's policies for the conserving and enhancing the natural environments through minimising the impacts of development upon biodiversity and providing measurable net gains to biodiversity.

3.9 Planning authorities are required to follow key principles in their consideration of potential impacts of planning decisions on biodiversity conservation. *Circular 06/05: Biodiversity and Geological Conservation* provides guidance on the application of the law relating to planning and nature conservation and complements the *National Planning Policy Framework*.

3.10 The presence of species protected under UK and European legislation are a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat. Ecological appraisals and protected species surveys are therefore designed to provide local planning authorities with the baseline information they require in order to fully consider the potential ecological effects of a planning application.

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3.11 *Biodiversity 2020: A strategy for England's wildlife and ecosystem services*, provides the *UK Biodiversity Action Plan* and country level biodiversity strategies for England, based on the list of habitats and species listed under *The Natural Environment and Rural Communities Act 2006*.

3.12 The North Somerset Council Core Strategy January 2017, sets out the broad long-term vision, objectives and strategic planning policies for North Somerset up to 2026. Policy CS4 Nature Conservation out how development can be delivered within environmental limits stating the following:

'North Somerset contains outstanding wildlife habitats and species. These include limestone grassland, traditional orchards, wetlands, rhynes, commons, hedgerows, ancient woodlands and the Severn Estuary. Key species include rare horseshoe bats, otters, wildfowl, and wading birds, slow-worms and water voles.

The biodiversity of North Somerset will be maintained and enhanced by:

- 1) Seeking to meet local and national Biodiversity Action Plan targets taking account of climate change and the need for habitats and species to adapt to it;*
- 2) Seeking to ensure that new development is designed to maximise benefits to biodiversity, incorporating, safeguarding and enhancing natural habitats and features and adding to them where possible, particularly networks of habitats. A net loss of biodiversity interest should be avoided, and a net gain achieved where possible;*
- 3) Seeking to protect, connect and enhance important habitats, particularly designated sites, ancient woodlands and veteran trees;*
- 4) Promoting the enhancement of existing and provision of new green infrastructure of value to wildlife;*
- 5) Promoting native tree planting and well targeted woodland creation, and encouraging retention of trees, with a view to enhancing biodiversity.*

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- 3.13 The supporting text to this policy contains the following statement which frames the need for the production of this Ecological Appraisal;

'3.72 Planning applications which have the potential to impact on biodiversity will need to be accompanied by ecological surveys which incorporate a biodiversity impact assessment, describing the biodiversity interest of the site, and the nature and extent of any impact of the proposed development. They should outline any mitigation measures and the steps to be taken to retain, incorporate, protect, enhance and where appropriate manage the biodiversity interest, as part of the proposal.

- 3.14 Alongside the Core Strategy sits the North Somerset Sites and Policies Plan July 2016 containing a number of Development Management Policies. The Sites and Policies Plan brings forward the detailed development plan policies which complement the strategic context set out in the Core Strategy. The Development Management Policies that are relevant to the proposed development are set out below.

- 3.15 Development Management Policy DM8 Nature Conservation:

'Development proposals must take account of their impact on local biodiversity and identify appropriate mitigation measures to safeguard or enhance attributes of ecological importance.

Where appropriate, proposals should seek to conserve the local natural environment by retaining, protecting, enhancing and linking existing wildlife habitats; by incorporating retained habitats sensitively into the development through appropriate design; and by ensuring that such retained and enhanced habitats are managed appropriately. Where necessary, longer term management will be achieved through suitable planning conditions.

Sites of International and National Importance

Development which would have an adverse impact on identified sites of international importance (which include Special Areas of Conservation

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(SACs), Special Protection Areas (SPA) and Ramsar sites) will not be permitted.

The North Somerset and Mendip Bats SAC consultation area is defined on the Policies Map. The consultation will identify the potential impact of the proposed development in respect of, for example, bat navigation and foraging habitats and identify appropriate mitigation measures through site design and lighting strategies.

The Severn Estuary SAC, SPA and Ramsar site is defined on the Policies Map. Any proposals that could affect the sensitive bird species and other habitats and species of the Estuary will need to carry out adequate surveys and assessments of the cumulative, in-combination and offsite impacts (drainage, disturbance, runoff, impacts on managed realignment etc.) of the scheme.

Development within or in proximity to a Site of Special Scientific Interest (SSSI) or National Nature Reserve that is likely to have a direct or indirect adverse affect on its biodiversity or geological interest would not normally be permitted.

Local Nature Reserves and Local Sites

Planning permission will not normally be granted for development that would result in loss in extent or otherwise have a significant adverse effect on Local Nature Reserves or Local Sites (locally designated Wildlife Sites and Geological Sites), unless the harm can be mitigated by appropriate measures.

Legally Protected Species and Habitats and Species of Principle Importance in England – Priority Habitats and Species

Development which could harm, directly or indirectly, species, which are legally protected, or species and habitats that have been identified as Species or Habitats of Principle Importance in England (also known as Section 41 or 'Priority' species and habitats) will not be permitted unless the harm can be avoided or mitigated by appropriate measures.

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Development proposals should ensure that, where appropriate, provision is made for:

- *Any lighting scheme to avoid adverse impacts on light adverse wildlife;*
- *Retention of native woodland, native trees (to include veteran trees), native hedgerows, watercourses, ponds, rhynes, other wetland habitats such as reedbeds, botanically diverse grasslands, traditional orchards, geological features, and other major natural features, habitats or wildlife corridors, and their protection during construction work;*
- *Protection of ecosystem resources, to include water quality;*
- *Compensatory provision, within the site itself, or immediate vicinity if practicable, of at least equivalent biodiversity value, where the loss of habitats or features of importance to wild flora and fauna is unavoidable;*
- *Incorporation of habitat features of value to wildlife within the development (to include within building design) and including those which meet the needs of local species (e.g. provision of nesting features for swifts, swallows, house sparrows, bats);*
- *Appropriate long term management of retained and newly created features of importance to wildlife;*
- *Provision of locally appropriate native species of local origin wherever possible; and*
- *Measures to link habitats within the development and also that link into adjoining wildlife corridor networks.*

Ecological mitigation measures provided within the development

Where development proposals may impact legally protected and notable species and habitats, they will need to be accompanied by an up to date

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ecological survey assessment as part of the submitted application. This will include:

- *Site context information provided by a local records data search of designated sites, legally protected and notable species in proximity;*
- *A description of the biodiversity interest of the site, to include current land use; and including, where applicable, regard for any Strategic Nature Areas;*
- *The nature and extent of the impact on legally protected species and habitats, Section 41 species and habitats/ or other notable species of the proposed development or change of use of land; and the measures that may be needed to avoid, mitigate or compensate the identified impacts;*
- *The steps to be taken to retain, protect, enhance, link and, where appropriate, create and manage the biodiversity interest over the longer term; which may include monitoring;*
- *Where necessary effective lighting design to avoid artificial light spill to wildlife habitats/corridors to avoid impacts on light adverse wildlife.*

3.16 Development Management Policy DM9 Trees and Woodland:

Development proposals affecting trees should:

- *Demonstrate that the retention, protection and enhancement of tree canopy cover has been considered throughout the design and development process;*
- *Evaluate, at a level of detail appropriate to the proposal, the short and longer-term impacts that the development may have on existing trees;*

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- *Achieve high quality design by demonstrating that the long term retention of appropriate trees is realistic, and that the trees are viewed as an asset by new occupants rather than as an issue of conflict. The future growth of tree canopy and roosts should be fully accounted for when designing:*
 - (i) *The location, spacing and orientation of buildings, gardens and green spaces;*
 - (ii) *The location of underground services;*
 - (iii) *The relative position of trees and windows for light;*
 - (iv) *Specific issues relating to tree species eg. Aphid honey dew, fruit drop, density of canopy, leaves and needles;*
 - (v) *Future management requirements and accessibility.*
- *Provide high quality physical protection of retained trees, which includes working methods that will be clearly communicated and understood by all site staff;*
- *Include where, practical, the introduction of appropriate new tree planting and woodland creation as an integral part of the design and landscaping of new developments, using native species of local origin wherever possible;*
- *Include where appropriate, the provision of new large-growing street and open space trees that are planted in high-quality tree pit designs, which maximise tree health and minimise future maintenance of the street surface;*
- *Protect ancient woodland and veteran trees, particularly where these provide important habitats;*
- *Ensure the engineering requirements to accommodate tree planting and future tree growth in relation to building foundation design are complied with;*

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- *Include, for larger-scale developments, an initial tree maintenance specification for new trees to ensure they thrive and grow to healthy maturity, and*
- *Provide a plan for the management of wooded areas that balances the protection and enhancement of biodiversity with increased opportunities for recreation and play.*

The council will consider the use of Tree Preservation Orders where appropriate individual trees or groups of trees are considered worthy of protection.

3.17 As well as the Core Strategy and Development Management Policies North Somerset Council have also produced a Supplementary Planning Document that deals with Biodiversity and Trees.

3.18 The objectives of this document are set out in Section 6 as follows;

The purpose of this document is to ensure that biodiversity is fully incorporated and best practice observed in development proposals. A five point approach has been suggested by the Royal Town Planning Institute in Planning for Biodiversity: Good Practice Guide that is given below:

- **Information** – *questions will be asked to decide if more information is needed on the potential effects of the development and on the expertise required to inform the decision;*
- **Avoidance** – *wherever possible all adverse effects on wildlife species and habitats should be identified and avoided;*
- **Mitigation** – *to minimise any adverse effects and aim to guarantee proposed mitigation with planning conditions;*
- **Compensation** – *to offset any residual harm and aim to guarantee proposed mitigation with planning conditions;*

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- ***New Benefits*** – *what and where are the opportunities to provide new benefits for wildlife?*

3.19 Section 7 of this documents confirms that the above highlighted process should be applied to minor developments including the erection of a single dwelling.

4 METHODOLOGY

Desk Study

- 4.1 Online resources were used to search for notable sites and habitats, including the UK government's online resource for geographic information about the natural environment (MAGIC Map). The search area for statutory sites was set at a radius of 10 km from the site boundary.
- 4.2 A data search was obtained from Bristol Regional Environmental Records Centre (BRERC).

Extended Phase 1 Habitat Survey

- 4.3 The extended Phase 1 Habitat Survey was conducted on 4th February 2020. The field survey methods were based on the Phase 1 Habitat Survey methodology (Joint Nature Conservancy Council, 2010). The main habitat types were mapped using standard habitat colours. The additional (extended) aspect of the survey method involves the identification of habitats that may support notable species, and searching for evidence of such species.
- 4.4 Considering the site location, context and the habitats it contains, the following protected species are considered in this report:
- Badgers (*Meles meles*);
 - Bats;
 - Birds;
 - Dormice (*Muscardinus avellanarius*);
 - Great crested newts (*Triturus cristatus*); and
 - Reptiles.
- 4.5 The site does not have any habitat suitable for white-clawed crayfish (*Austropotamobius pallipes*), otters (*Lutra lutra*) or water voles (*Arvicola amphibius*). These species are not considered further in this report.
- 4.6 During the site visit a systematic search for signs of badgers was undertaken.

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- 4.7 The site was also searched for non-native, invasive plant species, with particular care to search for the most commonly occurring and problematic species, *i.e.* Japanese knotweed (*Reynoutria japonica*), Indian balsam (*Impatiens grandiflora*) and giant hogweed (*Heracleum mantegazzianum*).

Assessment of Ecological Value

- 4.8 The habitats and species of principal importance for biodiversity in England are listed on *Section 41 of The Natural Environment and Rural Communities Act 2006*.
- 4.9 The assessment of the relative nature conservation value of the features at this site is also assessed against published criteria wherever possible. The value of habitats in the UK is covered in a wider variety of literature, including Usher (1986) and Ratcliffe (1977).
- 4.10 The main criteria against which the value of habitats is assessed are rarity, diversity, naturalness and extent. High importance is also attached to habitats that have not been subject to agricultural intensification, and which often depend on traditional forms of management, such as ancient semi-natural woodland, species-rich meadows and traditionally managed grasslands and moorlands.

Limitations

- 4.11 Engain cannot verify the accuracy of third-party information.
- 4.12 Extended Phase 1 Habitat Surveys are not definitive and represent a snapshot of the ecological status of a site. Data records help to provide a historical context, however the absence of evidence of a species does not prove that it does not use the site.

5 RESULTS

Desk Study

Designated Sites

- 5.1 The site is adjacent to the Bristol Channel, part of the Severn Estuary, which is designated at several levels. The Severn Estuary is the confluence of several major rivers and, because of its huge tidal range, has some of the largest areas of exposed mudflats at low tide in Britain. These and the other habitats of the estuary are important for a range of nationally and internationally important species.
- 5.2 The Severn Estuary was designated as a Ramsar site in 1995, covering 16,942 ha of wetland. The site's qualifying interest features overlap with those of the Severn Estuary SPA and SAC. The site is of particular importance for hosting internationally important populations of several species of water birds as well as its fish species migrating between the sea and rivers via the Estuary.
- 5.3 As highlighted above the Severn Estuary is designated as a Special Area of Conservation (SAC), for the following qualifying features:
- 1130 Estuaries
 - 1140 Mudflats and sandflats not covered by seawater at low tide
 - 1330 Atlantic salt meadows
 - 1110 Sandbanks which are slightly covered by sea water all the time
 - 1170 Reefs
 - 1095 Sea lamprey (*Petromyzon marinus*)
 - 1099 River lamprey (*Lampetra fluviatilis*)
 - 1103 Twaite shad (*Alosa fallax*)
- 5.4 The SAC boundary is 43m north of the proposed development site.

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5.5 The mudflats of the Severn Estuary are also designated as a Special Protection Area for the following qualifying features:

- Internationally important wintering populations of Bewick's swan (*Cygnus columbianus bewickii*);
- Regularly supporting over 20,000 waterfowl in winter; and
- Regularly supporting internationally important wintering numbers of:
 - European white-fronted goose (*Anser albifrons albifrons*);
 - Shelduck (*Tadorna tadorna*);
 - Gadwall (*Anas strepera*);
 - Dunlin (*Calidris alpina*); and
 - Redshank (*Tringa totanus*).

5.6 There are mudflats and rocky shores that form part of the SPA between mean high water (MHW) and mean low water (MLW) in the section of river adjacent to the site.

5.7 Inland from the SAC and SPA designations, the river banks are designated as the Portishead Pier to Black Nore SSSI for their geological interest.

5.8 The boundary of the Severn Estuary Site of Special Scientific Interest (SSSI), which follows the upper tidal limit along this stretch of the river, is approximately 43m north of the site. The SSSI is designated, amongst other things, for:

- the intertidal zone of mudflats, sand banks, rocky platforms and saltmarsh, which is one of the largest and most important in Britain
- internationally important populations of waterfowl;
- invertebrate populations of considerable interest; and

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- large populations of migratory fish, including the nationally rare and endangered Allis Shad (*Alosa alosa*).

5.9 The site is on the very outer edge of a Band C consultation zone for the North Somerset and Mendip Bats SAC. This SAC is designated because of its importance for greater horseshoe bats (*Rhinolophus ferrumequinum*) and lesser horseshoe bats (*Rhinolophus hipposideros*), and comprises a series of SSSIs consisting of caves, mines and woodlands. The consultation zones (as set out in the Council's guidance on planning and development) delineate areas around known roosts, within which suitable habitat is likely to be important as either foraging or commuting areas (or both).

5.10 Within the Band C consultation zone, the need for bat surveys is judged on a case-by-case basis. The guidance states:

“Within band C survey effort required will depend on whether a commuting structure is present and the suitability of the adjacent habitat to support prey species hunted by horseshoe bats.”

5.11 Commuting structures for horseshoe bats consist of linear features – hedgerows, tree-lines, stone walls and similar features. In circumstances where there are only minor or no impacts, then the guidance states that it may not be necessary to carry out a full season's survey and mitigation may not be required, but that this should be supported by information within an appropriate ecology report.

5.12 There are no non-statutory designated sites close to the proposed development: the nearest sites are in the green space to the south of the suburban area.

Habitats

5.13 The Site is a residential dwelling (no longer occupied) with front and rear gardens predominantly comprising areas of amenity grassland (managed lawn), hardstanding (stone patios, pathways and gravel patches) and extensive areas of introduced shrub planting (mostly ornamental woody shrub species) some of which are bordered by low stone walls. The rear garden slopes steeply upward



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Site Boundary

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Figure 2: Designated Sites

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(on a northwest facing slope) and is separated from the rear of the bungalow by a tall stone wall and earth bank with steps leading up to the garden.

- 5.14 Amenity grassland throughout site consist of a managed (mown short) sward. dominated by cocks foot (*Dactylis glomerata*) with common species including creeping buttercup (*Ranunculus repens*), dandelion (*Taraxacum officinale*) and snowdrop (*Galanthus* species).
- 5.15 The grassland is bordered by areas of introduced planting/ornamental rockeries, leading into mixed conifer and evergreen hedgerows. To the south, the garden becomes less managed and land which looks to have previously been used as vegetable patches has given way to patches of rough tussocky grassland (dominated by cocks foot) with patches of common nettles (*Urtica dioica*) and ragwort (*Sencio jacobaea*) and scattered bramble scrub (*Rubus fruticosus* agg.) with patches of common nettles.

Invasive Plant Species

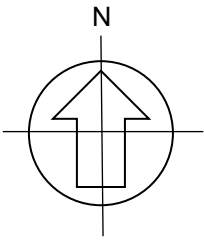
- 5.16 There were no signs of any invasive plant species.

Badgers

- 5.17 There were no signs of badgers using the site.

Bats

- 5.18 The garden is suitable for foraging bats, especially species such as pipistrelles and brown long-eared bats, which are more frequently found in suburban settings than some of the other more light-averse species.
- 5.19 The garden is not typical foraging habitat for either of the horseshoe bat species, whose preferred foraging habitats primarily include grazed pasture, woodland and scrub. The plot is bracketed by roads with streetlights – Hillside Road has streetlights all the way along, and Halliwell Road is lit along most of its length.
- 5.20 The main house is a wooden clad, single-storey bungalow that is no longer occupied. It has a mixture of original wooden and replacement PVC windows and door frames. It has a double pitched roof with flat, tightly fitted clay tiles.



- Hardstanding
- Amenity grassland lawn
- Building
- Introduced shrub
- Scattered scrub
- Tree
- Target Note
- Species poor hedge
- Stone wall
- Fence
- Earth bank



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 Figure 3 Phase 1 Habitat Plan

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There are small gaps between the building and fascia boards on the southeast and northeast elevations that have low potential for crevice-dwelling bats such as pipistrelles.

- 5.21 The attic spaces in the bungalow appear to be well-maintained with no access for bats.
- 5.22 There is a detached garage adjacent to the bungalow, made of brick with wooden doors and window frames. It has a flat corrugated roof. There are some cracks in the wooden fascias, however these lead straight into the main body of the building which is well-lit inside (via windows) and cobwebby. There are no visible signs of bats and it has negligible roosting potential.
- 5.23 There are also two wooden sheds in the garden, one wooden and one plastic, as well as a greenhouse, all of which have no roosting potential.
- 5.24 None of the trees in the garden have any bat roosting potential.

Birds

- 5.25 The site is suitable foraging habitat for typical garden birds such as blue tit (*Cyanistes caeruleus*) and house sparrow (*Passer domesticus*). There was one old bird's nest in the detached garage.

Dormice

- 5.26 The scrub and trees are nominally suitable habitat but they are very poorly connected to the surrounding landscape.

Great crested newts

- 5.27 The garden is good habitat for amphibians, but there are no ponds visible on aerial photographs or OS mapping within 500m of the site. The nearest records of great crested newts are from Portishead Down Police Headquarters, approximately 1.5km south-east.

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Reptiles

- 5.28 The garden is good habitat for slow-worms (*Anguis fragilis*), grass snakes (*Natrix helvetica*) or common lizard (*Zootoca vivipara*) and the nearby riverbank is also suitable habitat for these species. There are records of slow-worms from Black Rock Quarry and a residential property in Portishead.

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6 EVALUATION, MITIGATION AND ENHANCEMENT

Development Proposal

- 6.1 The planning application (reference 19/P/2734/FUL) is to:
- “Demolish existing 3 bed house and construct 2no semi-detached 4 bed Town Houses”*
- 6.2 Two new vehicle accesses would be formed onto Hillside Road to replace the existing single access. The proposal is to lower the level of the site so that it is level with the land on Hillside Road.
- 6.3 To the rear there will be a low-level retaining wall at the back of the patio and then rear gardens split into two.
- 6.4 The existing boundary wall on the back edge of the footpath will be retained but rebuilt to allow for the new access points and there will be a continuation of other boundary walls along this frontage. There will be landscape areas within the front and rear to enhance the appearance of the development.

Designated Sites

The Severn Estuary

- 6.5 The proposal to convert one dwelling into two, within an existing residential plot and suburban setting, in general terms has little potential to impact upon the features for which the Severn Estuary is designated, despite its close proximity.
- 6.6 The main pressure or threat to the estuary identified in the Site Improvement Plan is the matter of public access and disturbance of birds. Whilst the development proposal will potentially increase the number of people accommodated on the plot, the resultant increase in public use of the estuary and adjacent footpaths is *de minimis* and any effect related to disturbance would be negligible.
- 6.7 The development proposal is entirely situated within an existing plot, and there would therefore be no risk of physical damage of, or changes to, the habitats of the estuary. Once completed, the proposed development's surface and foul

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water outputs would be linked into the existing network in accordance with all relevant good practice, legislation and guidelines, such that the risk of any additional pollution of the river is also negligible.

- 6.8 The development plot looks out over the estuary, including the rocky shore and mudflats, which may at times be used by wintering wildfowl. There is therefore a hypothetical risk that these birds could be disturbed during construction as a result of sighting of people or machinery or as a result of noise generated during the work. However, a number of factors make this unlikely. The river is some metres below the level of the plot and the near-shore area between MHW and MLW is shielded from view to some extent by the riverbank. The plot is also in an area where building work, vehicles and pedestrians are regular occurrences, such that the additional building work associated with this proposal would not represent a substantial increase in human activity above existing levels. It is therefore not likely that the proposal would have any signified effect on the estuary. Measures included within a Construction Environmental Management Plan to avoid adverse effects on wildlife generally (such as restrictions on lighting and noise) will also reduce the likelihood of any effect occurring.
- 6.9 In conclusion, despite the close proximity of the site to the Severn Estuary, it is not considered that any specific mitigation is required to avoid adverse effects, beyond those that would be in place as part of standard good practice and adherence to legislation.

North Somerset and Mendip Bats SAC

- 6.10 The proposed development site does not contain any habitat or linear features likely to be of importance to bats associated with the SAC.
- 6.11 The development plot does not contain a linear feature linked to surrounding habitats and is in a suburban location surrounded by roads. Furthermore, it is on the very outer edge of the consultation zone.
- 6.12 As the proposed development retains the rear gardens and includes new hedge planting, there is no risk of any adverse effect on the SAC.

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Habitats

- 6.13 The gardens have ecological value at a site level, as a green space likely to be used by a range of common species. The development proposal includes the provision of a similar amount of garden space. Inevitably in the short term the existing slightly wild garden areas will be tidied and parts of it re-landscaped, but in the long term the planting and management of the gardens is not likely to have a significant adverse effect on habitats at anything other than a site level.
- 6.14 The hedges around the edge of the site should be retained where possible and they can be enhanced with the inclusion of a greater range of native shrubs species.

Badgers

- 6.15 Prior to the commencement of the development the site should be checked for any new badger activity.
- 6.16 Precautionary working measures should be implemented during construction, such as not leaving ground workings or trenches open over night to avoid the risk of causing harm to badgers during construction works. These measures can be formalised within a Construction Ecological Management Plan (CEMP).

Bats

- 6.17 The site is small and isolated and not likely to be of critical importance to any significant bat populations.
- 6.18 The roads and built-up areas around the site limit its suitability for bats, so that it is not likely to be an important commuting route and is not likely to be used by the most light-averse species (particularly the horseshoe bats).
- 6.19 An endoscope inspection of the features with low bat roosting potential on the bungalow should be carried out prior to any works, and a precautionary approach to demolition may be required.
- 6.20 The site could be enhanced for bats by providing new roosting features in the form of bat boxes and built-in roosting features.

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Birds

- 6.21 Vegetation where birds could nest, and the garage, should only be cleared outside of the bird-breeding season (March-August). If this is not possible then a suitably qualified ecologist would need to inspect them prior to removal to confirm that nests are not present.

Dormice

- 6.22 Considering the small size of the site, the absence of woodland adjacent to it, and its position in a suburban area, it is not likely that dormice are present and no further precautions are required in respect of this species.

Great Crested Newts

- 6.23 Given the absence of any suitable breeding ponds within 500m, it is not likely that great crested newts will be present at this site and no further precautions are required in respect of this species.

Reptiles

- 6.24 A reptile mitigation strategy should be prepared to set out how the site clearance will be conducted without risk of harm to reptiles. Given the small size of the site and the low likelihood of it supporting anything other than small numbers of individuals, it is sufficient that this mitigation strategy consists of a precautionary working method supervised by an ecologist. This will include clearing the site in a phased manner in temperatures high enough for reptiles to be active. The reptile mitigation strategy should be set out in the CEMP.

Ecological Precautions and Enhancements

- 6.25 In order to ensure that wildlife is protected during construction, a CEMP should be prepared to include the following:
- Toolbox talk(s) for contractor(s) – especially those responsible for site clearance – to highlight the key points of the CEMP and the precautions required.

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- Pre-commencement check for badgers and on-site measures to protect them during construction.
- Pre-commencement check for nesting birds (if required depending on the timing of the work).
- Reptile mitigation strategy for site clearance.

6.26 In order to make the most of the opportunity to enhance the site for wildlife, the following should be included in the development plans:

- Enhancing retained hedges with additional planting of native shrubs
- Incorporating built-in bat roosting boxes such as the Schwegler 27 Brick Bat Box. Four such boxes would provide a suitable amount of new roosting habitat.
- Incorporating built-in bird nesting boxes, such as the Woodstone build-in swift boxes (which are suitable for a range of species including swifts). Four such boxes would provide a suitable amount of new nesting habitat.
- Incorporating built-in insect habitat such as a built-in bee brick.
- Ensuring hedgehogs (and other small wildlife) can move between gardens by incorporating access points in the bottom of the fences.

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APPENDICES

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Appendix 1 Target Notes

B1: Wooden clad, single story residential bungalow. No longer occupied. Mixture of original wooden and replacement PVC window and door frames. Double pitched roof with flat, tightly fitted clay tiles. Light layer of moss on some tiles.

Front/northwest elevation: No slipped, broken or missing tiles (all tight fitting). All external features of building flush with wall and wooden cladding is tightly fitted with no obvious cracks or crevices suitable for roosting bats. Negligible bat potential.

Rear/southeast elevation: As on front elevation, no slipped, broken or missing tiles (all tight fitting). Most external features of building flush with wall. There are some small, narrow gaps between wooden fascias and cladding at this aspect, in particular at the west end (**TN1**; where the roof overhangs the wall) however these don't look to go back far into the roof void. There are also some narrow gaps between the wooden fascias and wall at the east end of this aspect (**TN2**). These gaps mostly appear cobwebby/disused, however some areas look like they may lead back into the roof void. Low potential for crevice dwelling bats.

Side/northeast elevation: No cladding on walls (bare plaster; some wooden cladding at pitched rooves). As with front elevation, roof tiles all intact/tightly fitted and external building features mostly flush with the walls. Small area of lifted metal flashing (**TN3**), however this does not appear to lead back into the roof void (low/negligible potential for crevice dwelling bats). There are some deep cracks in a wooden board (**TN4**) that appear to lead into the roof void (low/medium potential for crevice dwelling bats).

Side/southwest elevation: No cladding on walls (bare plaster; some wooden cladding at pitched rooves). As with front elevation, roof tiles all intact/tightly fitted and external building features mostly flush with the walls. PVC window frames. Closed hatch on upper wall.

Attic 1 (accessed from bedroom at the front of the house): Lots of insulation. No roofing felt, wooden boarding instead. No obvious signs of bats. Relatively cobwebby and no obvious visible signs of bats.

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Attic 2 (accessed from hatch at the rear of house): In use as storage. No roofing felt, wooden boarding instead. Very dark with no obvious/visible light to indicate access points. Limited view as no ladder available. It was not possible to see the area of the roof void that TN4 may lead in to.

B2: Detached garage, stone brick with wooden doors and window frames. Flat corrugated (asbestos?) roof with moss. Some cracks in wooden fascias, however these lead straight into the main body of the building which is well-lit inside (via windows) and cobwebby. No visible signs of bats. Negligible bat potential. **TN5** abandoned bird nest, most likely from previous year. Potential for nesting birds.

Garden structures: **TN6:** Wooden shed, previously used for garden storage. Door is open and the inside of the structure is therefore well lit and exposed to the elements. No visible signs of roosting bats. Negligible bat potential. **TN7:** Glass greenhouse, unsuitable for roosting bats. **TN8:** Plastic/metal garden shed. Empty inside and unsuitable for roosting bats.

No trees with obvious roosting potential. (majority of large plants within the garden are conifer/evergreen shrubs and existing deciduous trees are small/semi-mature with no potential roosting features).

Amenity grassland throughout site: Managed (cut short) dominated by cocks foot (*Dactylis glomerata*) with common understory species including creeping buttercup (*Ranunculus repens*), dandelion (*Taraxacum officinale*) and snowdrop (*Galanthus* sp). Grassland typically bordered by areas of introduced planting/ornamental rockeries, leading into mixed conifer and evergreen hedgerows. To the south, the garden becomes less managed and land which looks to have previously been used as vegetable patches has given way to patches of rough tussocky grassland (dominated by cocks foot) with patches of common nettles (*Urtica dioica*) and ragwort (*Senecio jacobaea*) in the understory and scattered bramble scrub (*Rubus fruticosus*) with patches of common nettles (*Urtica dioica*)

TN9: Species poor evergreen hedge, dominated by box (*Buxus* sp.) with ivy in the understory, approx. 3 m high.

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TN10: Wooden gate leading to garage and species poor evergreen hedge, dominated by bay laurel (*Laurus nobilis*).

TN11: Dense hedge, approx. 4-5 m high. Dominated by mixed evergreen and conifer species, including laurel (*Laurus* species) spindle (*Euonymus* species) and pyracantha (*Pyracantha* species), with some semi-mature coppiced beech (*Fagus* sp) at the south end and dense ivy (*Hedera helix*) throughout the understory. Additional border planting (introduced shrub around edge of amenity grassland) includes a wide range of ornamental/introduced woody shrubs and flowering plants, including buddleia (*Buddleja davidii*) viburnum (*Viburnum* species), bamboo, alliums (*Allium* species) and ferns.

TN12: Semi-mature field maple tree (*Acer campestre*)

TN13: Dense hedge, approx. 4-5 m high. Dominated by mixed evergreen and conifer species, including laurel (*Laurus* species), spindle (*Euonymus* species), yew (*Taxus baccata*) and holly (*Ilex aquifolium*). Understory planting (introduced shrub around edge of amenity grassland) includes a wide variety of ornamental species incl. elephant grass (*Miscanthus* sp), alliums, viburnum, etc.

TN14: Species poor privet hedge (*Ligustrum* species) approx.. 3-4 m high, with dense ivy in the understory.

TN15: Two semi-mature coppiced elms (*Ulmus* species).

TN16: Large brash piles

TN17: Hedge, predominantly holly and large amounts of bamboo. Approx. 4-5 m high.

TN18: Semi-mature beech tree

TN19: Species poor evergreen hedge, dominated by box (*Buxus* species) with dense bramble in the understory, approx. 3 m high. Wooden slat fence (approx. 3 m high) on south boundary;

TN20: Tall wooden slat fence (approx.. 3 m high)

TN21: Defunct metal post fence (around 1 m high) on east boundary

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