REDROW HOMES LIMITED

ECOLOGYSOLUTIONS

Part of the ES Group

LEASBROOK,
MONMOUTHSHIRE

Ecological Report

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ecology solutions for
planners and developers

PROTECTED SPECIES

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The information contained herein
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1. INTRODUCTION

1.1. Background and Site Characteristics

1.1.1. Ecology Solutions Limited was commissioned by Redrow Homes Limited in August 2019 to undertake a preliminary ecological appraisal of Leasbrook, Monmouthshire (see Plan ECO1), hereafter referred to as the site and wider study area.

1.1.2. The site and wider study area are located to the north-east of Monmouth and is bounded by existing residential development along the A466 Hereford Road to the west, a secondary school with playing fields to the south-west, and existing residential development along Dixton Close and the A466 Dixton Road to the south. The land to the north and east comprises open agricultural fields with a small number of existing buildings.

1.1.3. The site and wider study area primarily comprise improved grassland fields bounded by hedgerows and treelines. An area of woodland lies to the east, with a small area of woodland in the north of the wider study area and a stream flowing towards the south along the eastern boundary. An existing agricultural building is also located within the wider study area.

1.1.4. The emerging proposals for the site are for the provision of new residential development, including associated infrastructure and open space.

1.2. Ecological Appraisal

1.2.1. This document assesses the ecological interest of the site and wider study area as a whole. The importance of the habitats present is evaluated with regard to current guidance published by the Chartered Institute of Ecology and Environmental Management (CIEEM)[1].

1.2.2. The primary aim of this report is to clarify the existing baseline conditions for the site, and specifically to identify potential ecological constraints to the development of the site, in terms of designated sites, habitats and protected / notable species. Consideration is afforded to the planning policy and legal framework of relevance to biodiversity and nature conservation, in addition to avoidance, mitigation and enhancement measures that could be delivered as part of emerging development proposals.

1.2.3. The information presented in this report seeks to incorporate the requirements as outlined in the document entitled "*Local Development Plan Ecological Site Assessments in Monmouthshire 2021*". This report has been produced and reviewed by

[1] CIEEM (2018). *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Version 1.1*. Chartered Institute of Ecology and Environmental Management, Winchester.

experienced professional ecological consultants who are full members of CIEEM.

2. SURVEY METHODOLOGY

2.1. The methodology utilised for the survey work can be split into three areas, namely desk study, habitat survey and faunal survey. These are discussed in more detail below.

2.2. Desk Study

2.2.1. In order to compile background information on the site and wider study area, in addition to land in the local area, Ecology Solutions contacted South East Wales Biological Records Centre (SEWBReC) and Herefordshire Biological Records Centre (HBRC).

2.2.2. Information has been provided by both records centres and is referenced within this report where appropriate. Both SEWBReC and HBRC provided information on designated sites from a specified grid squares in a 4km x 4km area (using a central grid reference for the site), in addition to all information on protected and notable species from specified grid squares in a 3km x 3km area. Information regarding designated sites is also shown where appropriate on Plan ECO1.

2.2.3. Further information on designated sites from a wider search area (including Ancient Woodland) was also obtained from the online Multi-Agency Geographic Information for the Countryside (MAGIC)[2] database and the Lle Geo-portal[3]. This information is reproduced at Appendix 1 and is shown where appropriate on Plan ECO1.

2.2.4. Regard has also been afforded to existing background ecological information which pertains to the site and wider study area. This includes the findings of previous walkover survey work submitted to Monmouthshire as part of the adopted Local Development Framework (LDP) and information set out within the Monmouthshire Ecological Connectivity Assessment.

2.3. Habitat Survey

2.3.1. A habitat survey was carried out in August 2019 to ascertain the general ecological value of the land contained within the boundaries of the site and wider study area and to identify the main habitats and associated plant species, with notes on fauna utilising the site.

2.3.2. The site and wider study area were surveyed based around extended Phase 1 survey methodology[4], as recommended by Natural Resources Wales, whereby the habitat types present are identified and mapped, together with an assessment of the species

[2] http://magic.defra.gov.uk
[3] http://lle.gov.wales/map
[4] Joint Nature Conservation Committee (2010). *Handbook for Phase 1 Habitat Survey – a Technique for Environmental Audit*. England Field Unit, Nature Conservancy Council, reprinted JNCC, Peterborough.

composition of each habitat. This technique provides an inventory of the basic habitat types present and allows identification of areas of greater potential which require further survey. Any such areas identified can then be examined in more detail.

2.3.3. Using the above method, the site and wider study area were classified into areas of similar botanical community types, with a representative species list compiled for each habitat identified.

2.3.4. All of the species that occur in each habitat would not necessarily be detected during survey work carried out at any given time of the year, since different species are apparent at different seasons. However, given that the survey was undertaken during the summer period (the optimal season for assessment of grassland habitats), in addition to the habitats present, it is considered that an accurate and robust assessment of the ecological baseline has been made.

2.3.5. Particular regard has also been afforded to the condition of the site with respect to its potential to qualify as a Site of Importance for Nature Conservation (SINC). The findings of the habitat survey have been considered in light of the SINC Selection Criteria[5] which have been adapted for Monmouthshire[6].

2.4. Faunal Survey

2.4.1. General faunal activity observed during the course of the survey was recorded, whether visually or by call. Specific attention was paid to the potential presence of any protected, rare, notable or Priority species, and opportunities that the site and wider study area could provide for these species / groups.

2.4.2. In addition, specific surveys were undertaken with regards to Badgers and bats.

2.4.3. **Bats**. Initial bat surveys were undertaken in August 2019 to assess the potential for roosting bats within any buildings or trees on site. The work was undertaken by an experienced bat worker and aimed to establish the likelihood of presence / absence of roosting bats within or immediately adjacent to the site and wider study area.

2.4.4. Field surveys were undertaken with regard to best practice guidelines issued by Natural England (2004[7]), the Joint Nature Conservation Committee (2004[8]) and the Bat Conservation Trust (2016[9]).

[5] The South Wales Wildlife Sites Partnership (2004). *Guidelines for the Selection of Wildlife Sites in South Wales*
[6] Gwent Wildlife Trust (2009). *Revisions to Selected Sections of the Guidelines for the Selection of Wildlife Sites in South Wales to give Special Regard for Monmouthshire.*
[7] Mitchell-Jones, A. J. (2004). *Bat Mitigation Guidelines*. English Nature, Peterborough.
[8] Mitchell-Jones, A.J. & McLeish, A.P. (Eds.) (2004). *Bat Workers' Manual*. 3rd edition. Joint Nature Conservation Committee, Peterborough.
[9] Collins, J. (Eds.) (2016). *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd Edition). Bat Conservation Trust, London.

2.4.5. The agricultural building within the wider study area was assessed for its potential to support roosting bats, with an internal and external inspection survey undertaken. A detailed inspection of the building was undertaken to identify potential voids, gaps and other opportunities which could be used by roosting bats, with notes made of any evidence to indicate potential presence. Binoculars and torches were used to view inaccessible areas, as required.

2.4.6. The probability of a building being used by bats as a summer roost site increases if it:

- is largely undisturbed;
- dates from pre 20th Century;
- has a large roof void with unobstructed flying spaces;
- has access points for bats (though not too draughty);
- has wooden cladding or hanging tiles; and
- is in a rural setting and close to woodland or water.

2.4.7. Conversely, the probability decreases if a building is of a modern or pre-fabricated design / construction, is in an urban setting, has small or cluttered roof voids, has few gaps at the eaves or is a heavily disturbed premises.

2.4.8. The main requirements for a winter / hibernation roost site is that it maintains a stable (cool) temperature and humidity. Sites commonly utilised by bats as winter roosts include cavities / holes in trees, underground sites and parts of buildings. Whilst different species may show a preference for one of these types of roost site, none are solely dependent on a single type.

2.4.9. In addition, all trees present within or immediately adjacent to the site and wider study area were assessed for their potential to support roosting bats. For a tree to be classed as having some potential for roosting bats it must usually have one or more of the following characteristics:

- obvious holes, e.g. rot holes and old woodpecker holes;
- dark staining on the tree below a hole;
- tiny scratch marks around a hole from bats' claws;
- cavities, splits and/or loose bark from broken or fallen branches, lightning strikes etc.; and/or
- very dense covering of mature Ivy *Hedera helix* over trunk.

2.4.10. Consideration was also afforded to the habitats present within and adjacent to the site and wider study area in terms of the potential opportunities that they provide for foraging and commuting bats in the local area.

2.4.11. As outlined in Sections 4 and 5 below, given the proximity of the site and wider study area to a known Greater Horseshoe bat *Rhinolophus ferrumequinum* maternity roost at Newton Court Stable Block Site of Special Scientific Interest (SSSI), part of the Wye Valley and Forest of Dean Bat Sites Special Area of Conservation (SAC), a suite of monthly bat surveys were

undertaken between May and October 2020, with a further survey completed in April 2021.

2.4.12. Surveys were undertaken with regard to guidance outlined in Annex 3 of the North Somerset and Mendip Bats SAC Guidance Supplementary Planning Document[10], on the basis that this European designated site has also been designated on account of the presence of maternity colonies supporting Greater and Lesser Horseshoe *Rhinolophus hipposideros* bats (and that specific guidance in relation to surveys for the Wye Valley and Forest of Dean Bat Sites SAC is not available).

2.4.13. Survey work included both the deployment of automated static detectors to record long term data over a number of nights each month, in addition to walked transect surveys to record activity throughout the site and seek to identify behaviour such as foraging and commuting. Table 1 below summarises the dates and number of survey nights undertaken each month.

Month	Survey Period	Number of Automated Static Survey Nights	Number of Walked Transect Survey Nights
May 2020	12/05/2020 – 25/05/2020	13	2
June 2020	15/06/2020 – 25/06/2020	10	2
July 2020	09/07/2020 – 20/07/2020	11	2
August 2020	12/08/2020 – 19/08/2020	7	2
September 2020	15/09/2020 – 20/09/2020	5	1
October 2020	13/10/2020 – 19/10/2020	6	1
April 2021	21/04/2021 – 04/05/2021	14	1
		66	**11**

Table 1: Bat Survey – Dates of Automated Static Detector and Walked Transect Surveys

2.4.14. Surveys were therefore completed throughout the rest of the active season from April to October inclusive. The total survey effort undertaken at the application site meets or exceeds that outlined in the North Somerset and Mendip Bats SAC guidance (i.e. over 50 nights of static data throughout the year, with no less than five nights per month, and 10 walked transect surveys throughout the year). It is therefore considered that the survey effort employed is appropriate to inform a robust assessment of the value of the site and wider study area for Horseshoe bats.

2.4.15. Surveys were undertaken covering all suitable land within the site and the wider study area to provide important information regarding Horseshoe bat activity throughout the existing candidate site.

2.4.16. Given the size of the site and wider study area, three walked transect routes were identified, one covering the site and two covering the wider study area to the north (see Plan ECO3). Each

[10] North Somerset and Mendip Bats Special Area of Conservation (SAC): Guidance on Development Supplementary Planning Document

transect route included linear features such as woodland edges, treelines and hedgerows which were considered to provide opportunities for foraging and commuting bats. All surveys were undertaken on warm evenings with optimal conditions for foraging bats. Surveys commenced at sunset and lasted for a period of at least three hours. Surveyors utilised EMT2 Pro bat detectors with iPads to aid identification of bats and record data, with all recorded information subsequently analysed using Kaleidoscope bat sound analysis software.

2.4.17. Two automated static detectors per transect (i.e. six in total) were deployed each month between May and October 2020 as part of the static monitoring survey work. To provide comparable data, detectors were deployed at the same locations each month, with these positions selected to ensure good geographic coverage of the site as well as to record activity along features likely to be of greater value for foraging and commuting bats (such as woodland edge). Song Meter 4 (SM4+) and Song Meter Mini Bat detectors were utilised, with all data recorded subsequently analysed using Kaleidoscope bat sound analysis software. An additional two detectors were deployed during the April 2021 survey (i.e. eight in total) to provide further data.

2.4.18. **Badgers.** Survey work to search for evidence of Badgers was also undertaken in August 2019 survey, which comprised two main elements. The first of these was a thorough search for evidence of Badger setts. For any setts encountered each sett entrance would be recorded and plotted, even if the entrance appeared disused. The following information was recorded if appropriate:

i) The number and location of well used or very active entrances; these are clear of any debris or vegetation and are obviously in regular use and may, or may not, have been excavated recently.

ii) The number and location of inactive entrances; these are not in regular use and have debris such as leaves and twigs in the entrance or have plants growing in or around the edge of the entrance.

iii) The number of disused entrances; these have not been in use for some time, are partly or completely blocked and cannot be used without considerable clearance. If the entrance has been disused for some time all that may be visible is a depression in the ground where the hole used to be and the remains of the spoil heap.

2.4.19. Secondly, Badger activity such as well-worn paths and run-throughs, snagged hair, footprints, latrines and foraging signs were also searched for in order to build up a picture of the use of the site and wider study area by Badgers.

3. ECOLOGICAL FEATURES

3.1. The site and wider study area were subject to a habitat survey in August 2019. The vegetation present enabled the habitat types to be satisfactorily identified and an accurate assessment of the ecological interest of the habitats to be undertaken.

3.2. The following main habitat / vegetation types were identified:

- Improved Grassland;
- Hedgerows and Treelines;
- Woodland;
- Stream; and
- Buildings and Hardstanding.

3.3. The location of these habitats is shown on Plan ECO2. Each habitat present is described below with an account of their representative plant species.

3.4. Improved Grassland

3.4.1. The site and wider study area primarily comprise a series of improved grassland fields. These are grazed by livestock, with sheep grazing present throughout the site and wider study area in 2020.

3.4.2. In general terms, the species composition, diversity and sward length are common throughout most fields. The sward is typically very short due to intensive grazing and is dominated by Perennial Rye-grass *Lolium perenne*. Other species present within the fields include Knotgrass *Polygonum aviculare*, Creeping Buttercup *Ranunculus repens*, White Clover *Trifolium repens*, Red Clover *Trifolium pratense*, Dandelion *Taraxacum officinale* agg., Ribwort Plantain *Plantago lanceolata* and Field Bindweed *Convolvulus arvensis*.

3.4.3. Other species recorded more occasionally (in some fields only) include Black Bent *Agrostis gigantea*, False Oat-grass *Arrhenatherum elatius*, Yorkshire-fog *Holcus lanatus*, Cock's-foot *Dactylis gomerata*, Crested Dog's Tail *Cynosurus cristatus*, Common Bird's Foot Trefoil *Lotus corniculatus*, Common Sorrel *Rumex acetosa* and Selfheal *Prunella vulgaris*.

3.4.4. Field **F7** in the wider study area was recorded to be wetter and more cattle poached, with Celery-leaved Buttercup *Ranunculus sceleratus* and Redshank *Persicaria maculosa* also present.

3.4.5. Field **F5** in the south-eastern part of the wider study area was recorded to be relatively less improved than other fields within the site. Additional species recorded within this field include Meadowsweet *Filipendula ulmaria*, Common Knapweed *Centaurea nigra*, Hogweed *Heracleum sphondylium* and Field Horsetail *Equisetum arvense*.

3.4.6. In addition to the above, a small area of rougher grassland is present in the northern corner of field **F3** (in the north of the wider study area). Additional species in this location include Timothy *Phleum pratense*, Broad-leaved Dock *Rumex obtusifolius* and Common Nettle *Urtica dioica*.

3.5. Hedgerows and Treelines

3.5.1. The site and wider study area support a network of interconnecting hedgerows and treelines, which subdivide the fields and demark the boundaries of the site. The majority of these features appear to be regularly managed, and the species-richness of these features varies across the site and wider study area. Hedgerows and treelines are labelled on Plan ECO2 and are described below.

3.5.2. Hedgerow **H1** is two metres in height and is associated with a chain link fence. This hedgerow is subject to regular management and is dominated by Hawthorn *Crataegus monogyna*. Other species present include Bramble *Rubus fruticosus* agg., Elder *Sambucus nigra*, Dogwood *Cornus sanguinea*, Holly *Ilex aquifolium*, Elm *Ulmus* sp., Field Maple *Acer campestre* and Walnut *Juglans regia*. White Byrony *Bryonia dioica* and Clematis *Clematis vitalba* were also recorded within this hedgerow.

3.5.3. Hedgerow **H2** is approximately 1 metre in height and is associated with a post and wire fence. This hedgerow is also dominated by Hawthorn and is regularly managed. Other species present include Bramble, Dog Rose *Rosa canina*, Yew *Taxus baccata* and Sycamore *Acer pseudoplatanus*.

3.5.4. Hedgerow **H3** lies along the north-western boundary of the wider study area and backs onto residential gardens. This feature is associated with a metal fence and is gappy in nature, becoming more fragmented and unmanaged towards the north. Species present include, Hawthorn, Wild Privet *Ligustrum vulgare*, Sycamore, Cherry Laurel *Prunus laurocerasus*, Dog Rose, Elder, *Cypress* sp., Blackthorn *Prunus spinosa*, Field Maple, Ash *Fraxinus excelsior*, Dogwood, Lilac *Syringa vulgaris* and Honeysuckle *Lonicera* sp..

3.5.5. Hedgerow **H4** is approximately 1.5 metres in height and banked. This hedgerow is regularly managed and is associated a metal fence running. This hedgerow is also dominated by Hawthorn, with other species present including Elm, Bramble, Field Maple, Holly, Elder, Spindle *Euonymus europaeus*, Dog Rose, Hazel *Corylus avellana*, Blackthorn and Black Bryony *Tamus communis*.

3.5.6. Hedgerow **H5** is located along part of the northern boundary and is a banked hedgerow, roughly 1.5m in height. Species present within this hedgerow include Elm, Dog Rose, Bramble, Hazel and Blackthorn.

3.5.7. Hedgerow **H6** is a dense hedgerow in the northern part of the wider study area and is located on a bank. This feature appears to be regularly managed and is dominated by Hawthorn. Other

species present include Bramble, Hazel, Elder, Elm, Blackthorn, Dogwood, Dog Rose, Field Maple, Pedunculate Oak *Quercus robur*, Silver Birch *Betula pendula*, Sycamore and Crack Willow *Salix fragilis*. Towards the south this hedgerow is subject to less management, wider and is associated with a stream (S1).

3.5.8. Hedgerow **H6b** is a continuation of H6 along the eastern boundary of the wider study area. This section of hedgerow supports additional trees and is associated with the stream along the boundary of the site.

3.5.9. Hedgerow **H7** is approximately 1.5 metres in height and is located along the north-eastern boundary of the wider study area. This feature is associated with a post and wire fence. Species present include Hazel, Blackthorn, Black Bryony, Field Maple, Hawthorn, Oak, Dog Rose, Holly and Spindle. Bracken is present throughout the ground layer of this hedgerow.

3.5.10. Hedgerow **H8** is a tall, managed feature which lies adjacent to the off-site woodland to the east of the wider study area boundary. Species present within this hedgerow include Hazel, Elm, Hawthorn, Blackthorn, Dog Rose, Elder and Ash.

3.5.11. Hedgerow **H9** is approximately 1 metre in height in the northern part of the wider study area. This feature appears to be regularly managed and supports a number of trees. Species present include Plum *Prunus domiestica*, Crab Apple *Malus sylvestris*, Mistletoe *Viscum album*, Blackthorn, Elder, Hawthorn, and Elm.

3.5.12. Hedgerow **H10** is two metres in height and is associated with a bank. This feature appears to be regularly managed and comprises Hawthorn, Elm, Elder, Oak, Dog Rose, Ash and Spindle.

3.5.13. Hedgerow **H11** can be described as a scrubby hedgerow associated with post and metal fence. Species present include Hawthorn, Hazel, Dog Rose and Spindle.

3.5.14. Hedgerow **H12** comprises a mature hedgerow associated with a wet ditch, with some parts being waterlogged at the time of survey. This hedgerow is dominated by Blackthorn, with other species present including Ash, Elder, Hawthorn, Hazel, Spindle, Dog Rose, Blackthorn, Holly, Dogwood, Field Maple and Hop *Humulus lupulus*. Species recorded in the ground layer in damp conditions include Meadowsweet, Great Willowherb *Epilobium hirsutum* Black Horehound *Ballota nigra* and Soft Rush *Juncus effuses*.

3.5.15. Hedgerow **H13** comprises a banked hedgerow which is identical in species composition to H12.

3.5.16. Hedgerow **H14** is a continuation of H9 towards the south but is more gappy. As with H9, this feature is regularly managed and is dominated by Hawthorn, with other species including Elder, Blackthorn, Hazel, Field Maple, Elm, Spindle, Sycamore and Ash.

3.5.17. Hedgerow **H15** is approximately 1.5 metres in height and is located in the central part of the wider study area. This feature is associated with a wooden fence and dry ditch and appears to be partially managed. The species composition is similar to H14, with additional species including Bramble, Dog Rose and Rowan *Sorbus aucuparia*.

3.5.18. Hedgerow **H16** is a small length of hedgerow located at the southern end of H12. This feature is similar in species composition to H15, with Plum trees also present.

3.5.19. Hedgerow **H17** is a short section of regularly managed hedgerow along part of the south-eastern boundary of the wider study area. This hedgerow lies adjacent to the stream and is dominated by Hawthorn and Blackthorn, with Holly also present.

3.5.20. Hedgerow **H18** is a regularly managed section of hedgerow along part of the southern boundary of the wider study area. This feature is dominated by Hawthorn and Blackthorn, with other species including Hazel, Elder, Oak and Holly.

3.5.21. Hedgerow **H19** is located in the southern part of the wider study area and appears to be subject to occasional management. This feature supports a similar species composition to H15, with Honeysuckle also present. There is a gap between this hedgerow and the southern boundary of the site.

3.5.22. Hedgerows **H20** and **H21** are located in the central and north-western parts of the site. These features also have a similar species composition to H15, being dominated by Hawthorn with a range of other native species present.

3.5.23. Hedgerow **H22** is located along the-western boundary of the site, and backs onto residential gardens. Species present include Hawthorn, Cypress sp., Hazel, Bramble, Elm, White Bryony *Bryonia dioica*, Privet, Lilac, Bramble, Holly, Sycamore and Cotoneaster *Cotoneaster* sp..

3.5.24. Hedgerow **H23** runs perpendicular to H22 and consists of a Poplar tree line with a thick scrub understory. Species present include Sycamore, Oak, Black Bryony, Elder, Hawthorn, Honey Suckle, Ash, Dog Rose, Hazel, Elm and White Bryony.

3.5.25. Hedgerow **H24** is associated with a post and rail fence along part of the southern boundary of the site, consisting of patches of scrub with semi-mature trees. Species present include Bramble, Hazel, Oak, Walnut and Cherry *Prunus* sp..

3.5.26. Hedgerow **H25** is a regularly managed, mature hedgerow dominated by Hawthorn. Other species present include Elder, Elm, Hazel, Blackthorn, Crab Apple, Dogwood, White Bryony and Black Bryony. A number of Beech *Fagus sylvatica* trees are located at the southern end of the hedgerow.

3.5.27. Hedgerow **H26** is a gappy hedgerow adjacent to the A466 road along the south-eastern boundary of the site. This feature is associated with a post and wire fence and species present include Hawthorn, Ash, Hop, Elm, Hazel, Snowberry *Symphoricarpos albus* and Clematis.

3.5.28. Species present in the ground flora of the hedgerows includes Ivy, Bracken *Pteridium aquilinum*, Common Nettle, Cow Parsley *Anthriscus sylvestris*, Lords and Ladies *Arum maculatum*, Sow Thistle *Sonchus* spp., Field Bindweed, Hogweed, Cock's-foot, St John's Wort *Hypericum* spp., Yarrow *Achillea millefolium*, Woody Nightshade *Solanum dulcamara*, Great Willowherb, Herb Robert *Geranium robertianum*, Mugwort *Artemisia vulgaris*, Hedge Woundwort *Stachys sylvatica* and Ground-ivy *Glechoma hederacea*.

3.5.29. It should be noted that the ground flora varies according to each hedgerow, which some supporting greater variation in species composition than others.

3.5.30. Treeline **TL1** is a tree line situated along the north-western boundary of the wider study area. Species present include Hawthorn, Ash, Elder, Hazel, Bramble, Oak, Holly, Wych Elm *Ulmus glabra*, Blackthorn, Dog Rose and Elm.

3.5.31. Treeline **TL2** is located along the eastern boundary of the wider study area and represents the edge of an off-site woodland beyond the stream (S1). Species present in this treeline include Hawthorn, Sycamore, Yew, Rhododendron, Elm, Blackthorn, Ash, Elder, Holly, Hazel, Horse Chestnut *Aesculus hppocastanum*, Cedar *Cedrus* sp., Hornbeam *Carpinus betulus* and Copper Beech. Dog's Mercury *Mercurialis perennis* is present in the ground layer. The southern end of this feature represents a section of Bramble with Woody Nightshade.

3.5.32. Treeline **TL3** is a small length of trees situated along the south-eastern boundary of the wider study area. Species present include mature Hawthorn (mature) and Hazel.

3.6. **Woodland**

3.6.1. A small area of secondary woodland is present in the northern part of the wider study area in close proximity to the existing building (B1). The woodland appears to be on a bank on its eastern side, and is not continuous or dense, being separated into smaller areas by hardstanding and areas of regularly disturbed ground.

3.6.2. Species present in the woodland include Norway Maple *Acer platanoides*, Ash, Oak, Black Pine *Pinus nigra*, Field Maple, Cherry and Dogwood.

3.6.3. Species present in the varied, often disturbed ground layer include Wood Avens *Geum urbanum*, Knotgrass, Hedge Woundwort, Cow Parsley, Cock's Foot, Fat Hen *Chenopodium album*, Common Nettle, Greater Plantain *Plantago major*, Spear Thistle *Cirsium*

vulgare, Perennial Rye-grass, Yorkshire Fog, Creeping Buttercup, Broad-leaved Dock, Great Willowherb, Garlic Mustard *Alliaria petiolata*, Red Fescue *Festuca rubra*, Cinquefoil *Potentilla* sp., Silverweed *Potentilla anserina* and Scarlet Pimpernel *Anagallis arvensis*.

3.7. **Stream**

3.7.1. A fast-flowing shallow stream is present along the eastern boundary of the wider study area (**S1**). The stream is primarily associated with hedgerow H6 / H6b and treeline TL2 and is extensively scrubbed over by H6 and H6b to the north. Poaching by livestock was recorded in some locations, with no marginal or aquatic vegetation recorded.

3.8. **Building and Hardstanding**

3.8.1. Building **B1** is an agricultural building with breeze block and corrugated metal walls, and a corrugated pitched metal roof. The structure is open sided and is used to store hay and farming equipment. This building is considered to be in poor condition, with light internal conditions due to gaps along the apex.

3.8.2. Areas of hardstanding are also present in and around building B1.

3.9. **Background Information**

3.9.1. The desk study undertaken by SEWBReC and HBRC did not identify any records of protected or notable flora from the site or wider study area. The closest record identified by the desk study is of Bluebell *Hyacinthoides non-scripta,* recorded in a location approximately 0.3km to the east from 2007. Other notable species which were identified within the search area include Spreading Bellflower *Campanula patula* and Yellow Bird's-nest Orchid *Monotropa hypopitys*.

3.9.2. No protected or notable species were recorded within the site or wider study area during the Phase 1 survey and given the habitats present (primarily improved pasture), it is considered unlikely that the site would support any such species.

3.9.3. Having undertaken a comprehensive review of the Local Development Plan Ecological Site Assessments in Monmouthshire (2010) and other documents available on the Monmouthshire Council website, there is no existing ecological information available for the site or wider study area.

3.9.4. As outlined above, consideration has also been afforded to the Ecological Connectivity Assessment produced as part of the LDP evidence base. In the Habitat Connectivity Maps for Monmouth (page 61 of the document), an area of 'existing habitat connectivity' has been identified in the far south-eastern part of the wider study area (associated with the stream corridor and hedgerow / treelines along the wider study area boundary). Opportunities to extend habitat connectivity have also been identified within the site and

wider study area, both in the south-east, around the on-site woodland and in terms of the hedgerows present (as illustrated on the plans at pages 62 and 64 of the document).

4. WILDLIFE USE OF THE SITE

4.1. During the surveys that have been undertaken within the site and wider study area, general observations have been made of any faunal use, with specific attention paid to the potential presence of protected or notable species. Specific surveys were also undertaken for bats and Badgers.

4.2. Bats

4.2.1. There are no buildings, structures or trees present within or adjacent to the site boundary that provide suitable opportunities for roosting bats.

4.2.2. Building B1 within the wider study area is not considered to provide any potential opportunities for roosting bats, on account of its metal frame and corrugated sheet construction (lacking any voids, cavities or small gaps) and light and draughty internal conditions due to the open sided nature of the building. No evidence to indicate the potential presence of roosting bats was recorded during the internal and external assessment.

4.2.3. A number of mature / semi-mature trees within the wider study area were identified to posses features of potential value for roosting bats, such as splits, cracks, holes and dense Ivy. The approximate locations of these trees are shown on Plan ECO2.

4.2.4. The habitats present within the site and wider study area are considered to provide suitable foraging and commuting opportunities for bats in the local area, with the network of treelines and hedgerows providing linear features passing through and across the site.

4.2.5. As outlined in Section 2 above, mindful of the proximity of the site to Newton Court Stable Block SSSI (a component of the Wye Valley and Forest of Dean Bat Sites SAC), specific bat surveys were undertaken throughout the 2020 season and in April 2021 to ascertain the value of the site and wider study area for foraging and commuting Horseshoe bats.

4.2.6. The key findings of bat surveys completed at the site and wider study area are summarised in Tables 2, 3 and 4 below. Plan ECO3 identifies the locations where static detectors were deployed during the course of the surveys, and also the walked transect routes utilised during the survey work.

4.2.7. Tables 2 and 3 summarise the results of the automated static detector survey completed of the site and wider study area and outline the average number of registrations recorded per night of Greater Horseshoe Bats and Lesser Horseshoe Bats respectively for each month at each static detector location.

4.2.8. Table 4 relates to the walked transect surveys and outlines the average number of registrations per night for both species for each month (taking into account all three transects).

4.2.9. Where particular issues have been identified during the analysis of the data that could affect or otherwise potentially 'skew' the average figures outlined below, these are identified in the relevant footnotes.

Month	Static Detector Location					
	1	2	3	4	5	6
May 2020	7.08	1	1.15	13.38	0.15	1
June 2020	0.60	0.80	0.30	9.60	0.30	-[11]
July 2020	1.09	3.18	0.55	2.09	4.64	3.30
August 2020	14.71	10.71	2.86	3.71	3.86	1.86
September 2020	1.60	1.00	0.20	1.00	0.00	1.00
October 2020	0.00	0.00	0.00	0.43	0.00	-[12]
April 2021	0.70	0.44	0.29	0.36	0.29	0.50

Table 2: Automated Static Detector Survey – Greater Horseshoe Bat Data (average registrations per night)

Month	Static Detector Location					
	1	2	3	4	5	6
May 2020	1.77	0.54	2.38	4.31	0.23	0.15
June 2020	3.30	1.00	1.80	9.00	2.20	-[11]
July 2020	0.27	0.55	0.73	0.27	0.27	0.55
August 2020	2.43	1.00	0.71	1.00	0.29	0.86
September 2020	12.00	19.80	5.00	2.20	0.20	10.60
October 2020	0.43	2.70	0.00	1.14	1.29	-[12]
April 2021	0.20	4.56	0.07	0.00	0.21	0.93

Table 3: Automated Static Detector Survey – Lesser Horseshoe Bat Data (average registrations per night)

Month	Average number of registrations of Greater Horseshoe	Average number of registrations of Lesser Horseshoe
May 2020	0.33	0
June 2020	0.5	0.33
July 2020	11	0
August 2020	9.5	1
September 2020	0	0
October 2020	0	4
April 2021	1.33	0.33

Table 4: Walked Transect Survey (average registrations per night)

4.2.10. Two additional static detectors were deployed within the site as part of the April survey (Locations 7 and 8 on Plan ECO3). Due to a technical error, the detector at Location 8 recorded for a single night only, whilst the detector at Location 7 recorded for the full 14 night period.

[11] Static detector deployed at Location 6 failed to record data in June
[12] Static detector deployed at Location 6 found damaged in October survey, no data recorded

4.2.11. Both of the detectors deployed at Locations 7 and 8 recorded a single registration of Lesser Horseshoe throughout the survey period (resulting in an average number of registrations per night of 0.07 and 1.00 respectively). No registrations of Greater Horseshoe recorded at either location.

4.2.12. The following paragraphs briefly summarise the survey findings by month, with static detector locations and transect numbers shown on Plan ECO3.

May 2020

4.2.13. In the May static surveys, Greater Horseshoe and Lesser Horseshoe bats were recorded at all static detector locations. However, activity levels of both species were significantly higher at location 1 in the north-west and location 4 in the east of the wider study area than in other locations. Location 5 located within the site recorded the least amount of activity overall (with an average of just 0.15 registrations Greater Horseshoes and 0.23 Lesser Horseshoes per night respectively).

4.2.14. In addition, very little Greater Horseshoe activity was recorded during the transect survey (two registrations at Transect 2 only, covering the central part of the wider study area), and no registrations of Lesser Horseshoe bats were recorded. No registrations of either species were recorded at Transects 1 and 3 (south and north respectively).

June 2020

4.2.15. The number of registrations of Greater Horseshoes were significantly lower at each detector location compared to May. The highest amount of activity was recorded at location 4, with the lowest level of activity was recorded at locations 3 and 5 (average of 0.30 registrations per night). However, the number of registrations of Lesser Horseshoe bats was higher compared with May, with the highest level of activity recorded at location 4.

4.2.16. The June transect survey again identified few registrations of Greater Horseshoe and Lesser Horseshoe bats within the wider study area. The early June activity survey recorded two Greater Horseshoe registrations at Transect 2 and one registration each of Greater and Lesser Horseshoe at Transect 3. The late June survey identified one Lesser Horseshoe registration at Transect 3. No registrations were recorded at Transect 1 (southern part of the site / wider study area).

July 2020

4.2.17. Greater Horseshoe bat activity was recorded throughout the site and wider study area. The highest level of activity was recorded at location 5, with an average of 4.64 registrations per night. Levels of Lesser Horseshoe activity were recorded to be lower across the site and wider study area.

4.2.18. Having undertaken further detailed analysis of the July data at Location 5 (see Appendix 2 of this report), most activity was recorded over the first two nights of the survey period, and in relatively short periods each time (less than 30 minutes). This would seem to suggest foraging by an individual or small number of bats, after which time bats flew elsewhere. For most of the night there was no Horseshoe bat activity recorded at all at Location 5 (i.e. activity was not spread throughout the night). It seems as though most activity was recorded in the early part of the night and prior to dawn, which suggests bats moving to this area from the roost and then off elsewhere, before returning the following morning.

4.2.19. The July transect survey identified higher levels of Greater Horseshoe bat activity, with 11 registrations of Greater Horseshoe at Transect 1, five registrations at Transect 2 and one registration at Transect 3 in the early July survey, and five registrations of Greater Horseshoe at Transect 2 in the late July survey.

4.2.20. When the results of the July transect survey are shown geographically (see Plan ECO4), it is apparent that activity was recorded in the eastern and central parts of the wider study area. No registrations were identified in the site itself.

August 2020

4.2.21. Static detector survey work in August identified higher levels of Greater Horseshoe bat activity in the northern part of the wider study area, notably in locations 1 and 2. Registrations of Horseshoe bats were also recorded at all other surveyed locations.

4.2.22. Again, when the August data for Location 5 is considered in detail (see Appendix 2), the data is clearly skewed by higher levels of activity on particular nights. Except for one night (night 6 of the survey period), no more than three registrations of Greater Horseshoe bats were recorded on any given night; indeed, this species was not recorded on three of the nights at all.

4.2.23. Furthermore, on night 6 the vast majority of calls were recorded within a 15 minute period around 2100, and then in a two minute period around 0300, indicating that this likely represents foraging by an individual / small number of bats at specific parts of the night.

4.2.24. The August transect survey also identified Greater Horseshoe activity within the wider study area, with two registrations of bats at Transect 2 and one registration at Transect 3 in the early August survey, and 16 registrations of Greater Horseshoes at Transects 2 and 3 in the late August survey. No registrations were identified at Transect 1 (southern part of the site and wider study area).

4.2.25. As illustrated on Plan ECO4, it is apparent that Greater Horseshoe bats were recorded in the northern and (to a lesser extent) western parts of the wider study area, with no activity recorded in the central and southern areas.

September 2020

4.2.26. Static detectors in September recorded significantly lower levels of Greater Horseshoe bat activity within the site and wider study area compared to July and August. No activity was recorded within the site at location 5, with very little activity also recorded at location 3 (average of 0.2 registrations per night).

4.2.27. In contrast, the level of Lesser Horseshoe bat activity was significantly higher in September, particularly at locations 1 and 2 (north) and location 6 (east). Much lower levels of activity were recorded elsewhere within the site and wider study area, particularly at location 5 (average of 0.2 registrations per night).

4.2.28. No activity of either Horseshoe species was recorded during the transect surveys in September.

October 2020

4.2.29. Greater Horseshoe and Lesser Horseshoe activity recorded in October was much lower than in previous months. Greater Horseshoes were only recorded at location 4 (at an average of 0.43 registrations per night), with fewer than three registrations per night on average of Lesser Horseshoe bats at all other locations.

4.2.30. No Greater Horseshoe bats were recorded during the transect survey. A total of four registrations of Lesser Horseshoe were recorded, all in the northern part of the wider study area.

April 2021

4.2.31. Greater Horseshoe bat registrations were recorded at all locations during the April 2021 survey, although activity levels were very low, with a maximum of 0.70 registrations per night recorded at location 1 (within the wider study area). Activity was recorded to be lowest at Locations 3 and 5 (with just four registrations recorded at each location throughout the 14 night survey period).

4.2.32. Lesser Horseshoe bats were recorded to be present in all locations bar Location 4. The greatest level of activity was recorded at Location 2 (the northern part of the wider study area), with an average of 4.56 registrations per night. Upon closer inspection it is apparent that nearly half of the registrations recorded in this location pertained to a single night (23 April 2021), with much lower activity recorded on other nights throughout the period.

4.2.33. A total of four registrations of Greater Horseshoe bat were recorded during the transect survey, with a single registration of Lesser Horseshoe. All of these were recorded from the northern part of the wider study area. No registrations of Horseshoe bats were recorded during the transect survey within the site boundary.

Ranking Analysis

4.2.34. To assist with the interpretation of the data recorded (noting that there is in some cases distinct variability between months), the static detector data returned from each location was subsequently 'ranked' according to the level of Greater Horseshoe and Lesser Horseshoe activity recorded.

4.2.35. For each month, the six locations were ranked from one to six, with a rank of 1 signifying the highest level of activity for each species within a given month, and a rank of 6 signifying the lowest level of activity for each species within a given month.

4.2.36. An average of the rankings of each location over the seven months of survey was then calculated. These average rankings are shown in Table 5 below.

Location	Average rank of location for Greater Horseshoe (out of 6)	Average rank of location for Lesser Horseshoe (out of 6)
1	2.14	2.57
2	2.57	2.29
3	4.00	3.43
4	2.43	3.00
5	3.43	4.14
6	2.29	2.29

Table 5: Ranking analysis (static detector data, May to October 2020 and April 2021)

4.2.37. Using this metric, it is apparent that location 1 and location 2 in north-west of the wider study area and locations 4 and 6 in the east of the wider study area recorded a higher level of bat activity than those elsewhere.

4.2.38. Similarly, location 5, located in the south-west (within the site boundary), recorded the lowest level of Lesser Horseshoe activity and the second lowest level of Greater Horseshoe activity on average across the survey period.

4.2.39. **Background information**. The desk study undertaken with SEWBReC and HBRC did not identify any records of bat species from the site. However, a significant number of records were returned for a range of species in the local area. Many of these pertain to Greater Horseshoe and Lesser Horseshoe at Newton Court Farm SSSI (see below).

4.2.40. Other bat species recorded in the local area include Common Pipistrelle *Pipistrellus pipistrellus*, Soprano Pipistrelle *Pipistrellus pygmaeus*, Noctule *Nyctalus noctula*, Daubenton's bat *Myotis daubentonii*, Serotine *Eptesicus serotinus*, Brown Long-eared bat *Plecotus auritus* and Natterer's bat *Myotis nattereri*.

4.3. Hazel Dormice

4.3.1. The network of woodland, hedgerows and treelines present within the site and wider study area provide some potential opportunities for Hazel Dormice *Muscardinus avellanarius*.

4.3.2. However, it is noted that the site and wider study area are relatively separated from large areas of woodland in the local area, with the nearest situated approximately 750 metres to the north-east of the wider study area boundary at its closest point.

4.3.3. **Background information.** The desk study undertaken with SEWBReC and HBRC identified a number of records of Hazel Dormice from the local area. This includes records associated with the A40, with the nearest approximately 0.5km to the east of the wider study area boundary at its closest point.

4.4. Badgers

4.4.1. Evidence of Badgers was recorded within the site and wider study area during the survey work undertaken in August 2019.

4.4.2. [redacted]

4.4.3. [redacted]

4.4.4. [redacted]

4.4.5. **Background information**. The desk study undertaken with SEWBReC and HBRC did not return any records of Badgers from within the site, wider study area or from the surrounding area.

4.5. Other Mammals

4.5.1. Due to the shallow nature of the stream and the absence of dense, lush aquatic and marginal vegetation, it is considered that the site and wider study area do not provide potential opportunities for Water Voles *Arvicola amphibius*.

4.5.2. Moreover, whilst Otters *Lutra lutra* could potentially utilise watercourses such as the stream to move through the local area, given its shallow nature and the fact that this rises from a spring within the wider study (and therefore does not provide a corridor connecting various watercourses in the local area), it is considered very unlikely that they would utilise the site or wider study area, particularly in preference to other rivers and streams in the wider area.

4.5.3. As such no further consideration has been afforded to either Water Voles or Otters within this Ecological Report.

4.5.4. **Background information.** The desk study undertaken with SEWBReC and HBRC identified a number of records of Otter from the River Wye. No records of Water Voles were returned from the local area.

4.6. Reptiles

4.6.1. The vast majority of the site and wider study area is not considered to provide potential opportunities for common reptile species due to the short sward as a result of an intensive grazing regime. Although there is some potential habitat in selected locations – such as the rough grassland in the northern part of F3 – these are very limited indeed in extent and are separated from other suitable habitats in the local area.

4.6.2. It is therefore considered unlikely that common reptiles would be present, and no further consideration has been afforded to this group within this Ecological Report.

4.6.3. **Background information.** The desk study undertaken with SEWBReC and HBRC did not return any records of reptile species from the site or wider study area. The nearest record returned was of Grass Snake *Natrix natrix*, returned from a location approximately 0.6km to the south-west from 2004.

4.7. Amphibians

4.7.1. There are no ponds or other suitable waterbodies present within or adjacent to the site or wider study area boundary which offer potential opportunities for breeding amphibians, including Great Crested Newts *Triturus cristatus*.

4.7.2. Furthermore, the site and wider study area are considered to provide poor opportunities for amphibians in their terrestrial phase, primarily due to the intensively grazed nature of the improved grassland fields resulting in a short sward providing limited cover.

4.7.3. Great Crested Newts are known to travel up to 500 metres without barriers that inhibit dispersal (such as major roads or rivers) to a breeding pond, although it is widely accepted that they most commonly utilise suitable terrestrial habitat within a much closer distance, with activity usually concentrated within 100 metres of breeding ponds and key habitat located within 50 metres.

4.7.4. Analysis of local Ordnance Survey (OS) maps and aerial photography identified two waterbodies within 500 metres of the wider study area boundary which could be utilised by breeding amphibians. These are both located to the north and appear to be situated at a golf course, with areas of rough grassland present in close proximity to these features. The nearest waterbody is located approximately 400 metres to the north at its closest point. No

suitable waterbodies were identified within 500 metres of the site boundary.

4.7.5. Given that terrestrial opportunities for this species within the site and wider study area are considered to be suboptimal (at best), particularly when considered in light of opportunities much closer to the waterbodies, together with the distances concerned it is considered very unlikely that Great Crested Newts would utilise the site or wider study area, should they be present within these waterbodies.

4.7.6. As such, it is considered that Great Crested Newts would not be present within the site or wider study area, and no further consideration has been afforded to this species within this Ecological Report.

4.7.7. **Background Information**. The desk study undertaken with SWEBReC and HBRC did not identify any records of amphibian species from the site or wider study area. The nearest record of Great Crested Newts was returned from a location approximately 0.8km to the south-west from 2013.

4.8. Birds

4.8.1. The woodland, hedgerow and treelines present within the site and wider study area provide opportunities for breeding and foraging birds.

4.8.2. Bird species recorded either utilising or passing over the site and wider study area during the survey in August 2019 include Pied Wagtail *Motacilla alba*, Buzzard *Buteo buteo*, Green Woodpecker *Picus viridis*, Woodpigeon *Columba palumbus*, Carrion Crow *Corvus corone*, Swallow *Hirundo rustica*, Starling *Sturnus vulgaris*, Wren *Troglodytes troglodytes*, Great Spotted Woodpecker *Dendrocopos major*, Mistle Thrush *Turdus viscivorus*, House Sparrow *Passer domesticus*, Chaffinch *Fringilla coelebs*, Long-tailed Tit *Aegithalos caudatus*, Robin *Erithacus rubecula*, House Martin *Delichon urbica*, Raven *Corvus corax*, Blue Tit *Cyanistes caeruleus*, Great Tit *Parus major*, Goldfinch *Carduelis carduelis* and Collared Dove *Streptopelia decaocto*.

4.8.3. **Background Information.** The desk study undertaken with SWEBRec and HBRC did not return any records of protected or notable bird species from the site or wider study area. Species returned from the wider area include House Sparrow, Goshawk *Accipiter gentilis*, Starling, Song Thrush, Spotted Flycatcher *Muscicapa striata*, Bullfinch *Pyrrhula pyrrhula*, Kingfisher *Alcedo atthis*, Tree Sparrow *Passer montanus*, Skylark *Alauda arvensis*, Yellowhammer *Emberiza citrinella*, Peregrine *Falco peregrinnus*, Hobby *Falco subbuteo*, Red Kite *Milvis milvus*, Lapwing *Vanellus vanellus* and Marsh Tit *Poecile palustris*.

4.9. Invertebrates

4.9.1. The site and wider study area are expected to support a limited range of common invertebrate species but given the relatively limited species associated with the improved pasture fields, there is no evidence to suggest that any protected or notable species or assemblages are likely to be present.

4.9.2. **Background Information.** The desk study undertaken with SEWBReC and HBRC did not return any records of protected or notable invertebrates from the site or wider study area, although a number of records of protected and notable invertebrates were returned from the search area.

5. ECOLOGICAL EVALUATION

5.1. The Principles of Site Evaluation

5.1.1. The latest guidelines for ecological evaluation produced by CIEEM propose an approach that involves professional judgement, but makes use of available guidance and information, such as the distribution and status of the species or features within the locality of the project.

5.1.2. The methods and standards for site evaluation within the British Isles have remained those defined by Ratcliffe[13]. These are broadly used across the United Kingdom to rank sites, so priorities for nature conservation can be attained. For example, current Site of Special Scientific Interest (SSSI) designation maintains a system of data analysis that is roughly tested against Ratcliffe's criteria.

5.1.3. In general terms, these criteria are size, diversity, naturalness, rarity and fragility, while additional secondary criteria of typicalness, potential value, intrinsic appeal, recorded history and the position within the ecological / geographical units are also incorporated into the ranking procedure.

5.1.4. Any assessment should not judge sites in isolation from others, since several habitats may combine to make it worthy of importance to nature conservation.

5.1.5. Further, relying on the national criteria would undoubtedly distort the local variation in assessment and therefore additional factors need to be taken into account, e.g. a woodland type with comparatively poor species diversity, common in the south of England may be of importance at its northern limits, say in the border country.

5.1.6. In addition, habitats of local importance are often highlighted within a local Biodiversity Action Plan (BAP). The Monmouthshire Local BAP (LBAP) highlights a number of habitats and species. This is referred to below where relevant.

5.1.7. Levels of importance can be determined within a defined geographical context from the immediate site or locality through to the International level.

5.1.8. The legislative and planning policy context are also important considerations and have been given due regard throughout this assessment.

[13] Ratcliffe, D A (1977). *A Nature Conservation Review: the Selection of sites of Biological National Importance to Nature Conservation in Britain*. Two Volumes. Cambridge University Press, Cambridge.

5.2. **Habitat Evaluation**

Designated sites

Statutory sites

5.2.1. There are no statutory designated sites of nature conservation interest within or immediately adjacent to the site or wider study area.

5.2.2. The nearest statutory designated site is River Wye (Lower Wye) SSSI, which is located approximately 0.2km to the south-east at its closest point, beyond the A40 dual carriageway (see Plan ECO1). This designated site is also a component of River Wye Special Area of Conservation (SAC).

5.2.3. River Wye (Lower Wye) SSSI is designated on account of the riparian habitat that it supports, with three main aquatic plant community types: rivers on sandstone, mudstone and hard limestone; clay rivers; and lowland rivers with minimal gradient. The SSSI Citation also notes that the designated site is of special interest on account of a number of riparian habitats, flowering plants and bryophytes, an assemblage of aquatic invertebrates (including White-clawed Crayfish *Austropotamobius pallipes*), fish species and Otter. Whilst not a special feature of the site, reference is also made to the breeding bird assemblage.

5.2.4. The citation for River Wye (Lower Wye) SSSI is included at Appendix 3 of this document.

5.2.5. River Wye SAC is designated on account of the Annex I habitat type "*Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation*", and on account of the presence of a number of Annex II species, including:

- White-clawed Crayfish;
- Sea Lamprey *Petromyzon marinus*;
- Brook Lamprey *Lampetra planeri*;
- River Lamprey *Lampetra fluviatilis*;
- Twaite Shad *Alosa fallax*;
- Atlantic Salmon *Salmo salar*;
- Bullhead *Cottus gobio*; and
- Otter.

5.2.6. The site also supports the Annex I habitat "*Transition mires and quaking bogs*" and the Annex II species Allis Shad *Alosa alosa* as qualifying features, although these are not primary reasons for site selection.

5.2.7. The Natura 2000 Standard Data Form and Entry in the Register of European Sites for Wales for River Wye SAC are included at Appendices 4 and 5 of this document respectively.

5.2.8. Given the protection afforded to European designated sites under the Habitats Regulations, emerging proposals for development at the site will need to ensure that all potential effects that could arise upon the designated sites have been fully assessed. Given the proximity of these designated sites to the site, it is considered likely that this would entail the production of a Shadow Habitats Regulations Assessment (HRA), in order to ensure that all information is available to enable the Competent Authority (Monmouthshire County Council) to undertake their formal assessment.

5.2.9. With regard to River Wye SAC, the habitats present within the site are not considered likely to support any of the qualifying features associated with the SSSI or SAC (habitats or species). It is also noted that the site is also separated from the nearest part of River Wye by the A40 dual carriageway and a number of existing residential dwellings in Dixton. The stream passing along the eastern boundary of the wider study area represents a hydrological pathway leading to the River Wye, although this will be significantly separated from the site boundary.

5.2.10. Emerging development proposals will need to ensure that particular regard is paid to the drainage proposals to ensure that appropriate controls are incorporated to fully address potential risks from surface water run-off. This will need to include consideration of both the construction and operational phases. It is expected that measures to control both off-site flow rates and fully mitigate for potential contaminants would already form an integral part of the proposals, although these would need to be scrutinised in the context of the designated site.

5.2.11. The next nearest statutory designated site is Newton Court Stable Block SSSI, which is located 1km to the north-east of the site boundary at its closest point. This SSSI forms part of the Wye Valley and Forest of Dean Bat Sites SAC.

5.2.12. Newton Court Stable Block SSSI is designated on account of the presence of a breeding colony of Greater Horseshoe bats within a stable block building, with the citation noting that the roost regularly supported between 50 and 100 flighted adults and juveniles. The citation also notes that the site is used by small numbers of Lesser Horseshoe bats.

5.2.13. The citation for Newton Court Stable Block SSSI is included at Appendix 6 of this document.

5.2.14. Wye Valley and Forest of Dean Bats Sites SAC comprises a number of component SSSIs on the England / Wales border, and is designated on account of the presence of two Annex II species: Lesser Horseshoe bats (comprising 26% of the national population) and Greater Horseshoe bats (comprising around 6% of the national population).

5.2.15. The Natura 2000 Standard Data Form and Entry in the Register of European Sites for Wales for Wye Valley and Forest of Dean Bat

Sites SAC are included at Appendices 7 and 8 of this document respectively.

5.2.16. The site is separated from the SSSI / SAC by a number of pasture fields, treelines, the Mally Brook and a small number of existing properties. Given the distance concerned, it is considered that emerging proposals for development at the site would not be likely to lead to any direct impacts upon the roosting site via pathways such as damage, lighting or other pathways.

5.2.17. Scientific studies have been undertaken in respect of both this SAC and other Horseshoe bat SACs in the South West to seek to identify the key areas around the SAC which bats utilise. Studies are based on the concept of 'Core Sustenance Zones' (CSZ), which are defined as "*the area surrounding a communal roost within which habitat availability and quality will have a significant impact on the resilience and conservation status of the colony using the roost"* (Bat Conservation Trust).

5.2.18. Whilst it is understood that Natural Resources Wales (NRW) and Natural England (NE) are '*still evaluating'* the appropriate size for CSZs for Greater and Lesser Horseshoe bats at this SAC, UK studies[14] have identified a typical CSZ for Greater Horseshoes of 3km around a roost, and a typical CSZ for Lesser Horseshoe bats of 2km around a roost. It is noted that the site and wider study area lie within 2km of the nearest SSSI component of the SAC.

5.2.19. Studies at other European designated sites have also identified that habitats within 1km of a Greater Horseshoe maternity roost are of particular importance for the survival of juvenile bats, as they are less able to fly and therefore more reliant on the immediate area for feeding[15]. These areas are termed 'Juvenile Sustenance Zones' (JSZ). The site lies entirely beyond the 1km zone around the SAC / SSSI, although the western parts of the wider study area include land within this zone.

5.2.20. On this basis, and as outlined in Section 4 above, bat survey work has been undertaken to ascertain the extent to which the site is utilised by Horseshoe bats associated with the SAC / SSSI. Surveys completed at the site in 2020 (and April 2021) have identified that the site and wider study area are utilised by Greater and Lesser Horseshoe bats. Given the proximity of the SAC / SSSI to the site, it is likely that species associated with the designated site do use parts of the site for foraging / commuting, at least on occasion.

5.2.21. However, as outlined in detail in Section 4 above, survey work has confirmed that the habitats present within the site and wider study area are not used equally by Horseshoe bats. Evidence obtained from the work completed found that there is significant variation not

[14] BCT (2016) *Core Sustenance Zones: Determining Zone Size – 04.02.16*. Bat Conservation Trust, London
[15] Ransome, R.D. (1996). *The management of feeding areas for Greater Horseshoe bats: English Nature Research Reports Number 174*. English Nature, Peterborough

only in terms of the level of activity recorded each month across the site and wider study area, but also in terms of where activity was recorded within the survey area in any given month.

5.2.22. Detailed analysis and interpretation have ascertained that the level of activity of Horseshoe bats within the site boundary (at location 5) is lower than elsewhere within the wider study area. Where comparatively higher levels of activity were recorded (in July and August), further detailed analysis of the data has confirmed that this activity recorded primarily pertains to activity over short periods (less than 30 minutes), indicating foraging by individual or a small number of bats over a short period, before flying off elsewhere. On this basis, the evidence indicates that the habitats present within the site are not of any particular significance or importance for Horseshoe bats; put simply, the survey results do not demonstrate that they are regularly used by significant numbers of bats.

5.2.23. It is important to note that the land to the west of the site boundary comprises existing residential development, both adjacent to the A466 Hereford Road and indeed beyond to the west and north-west. The land to the south of the site comprises tennis courts, hockey pitches and playing fields associated with Monmouth School for Girls, some of which are subject to flood lighting. As shown on OS mapping and aerial photography, the land located to the north-west, west, south-west and south of the site provide few (if indeed any) opportunities for foraging and commuting bats including Horseshoes.

5.2.24. As outlined above, surveys did not find any evidence to indicate the presence of any regularly used or important commuting corridors passing through the site towards the south or west, which given the above is most likely due to the lack of suitability of these off-site habitats for Horseshoe bats. It is therefore considered most likely that the bats recorded to be utilising the site (i.e. at the static detector deployed at location 5) are not passing through the site along linear features to access land towards the west or south-west, but that the activity recorded is more likely to indicate occasional foraging activity from bats flying into the site from the west.

5.2.25. It is also noted that the land to the north, east and south-east of the wider site boundary comprise extensive areas of woodland, pasture and treelines. As such, the land which lies both between the site and the SAC / SSSI, and the vast majority of land to the north, east and south-east of the European designated site itself, provide suitable foraging and commuting opportunities for Horseshoe bats. In this context, notwithstanding the fact that surveys have identified that the site is used occasionally by Horseshoe bats for foraging, it is apparent that the site itself represents a very small proportion of potential habitat in the local area of the designated site; specifically, an area of land located immediately adjacent to existing development.

5.2.26. As outlined above, whilst the western parts of the wider study area include land within 1km of the SAC / SSSI, the site is located over

1km from the European designated site. As a result, notwithstanding the findings of the survey, it is also noted that the site does not lie within the Juvenile Sustenance Zone associated with the nearest part of the European designated site. Emerging development proposals would not therefore result in any losses within this zone.

5.2.27. As illustrated on the Strategic Masterplan produced by Pegasus Design (Drawing Reference P18-0649_01 Rev I; Appendix 9), the emerging development proposals for the site include the provision of a band of woodland, trees and scrub along the north-eastern boundary of the site. This will complement the existing hedgerows and treelines present within the site (and in particular along the northern boundary) and will provide Horseshoes and other bat species with a significant new linear landscape feature that they can use for navigation through the wider study area. Whilst the height and structure of this band of woodland will be of greatest importance, the use of a range of native species of local provenance will ensure that opportunities for foraging bats and biodiversity more generally will be maximised.

5.2.28. Potential effects to bats utilising off-site habitats such as those to the east and north from an increase in artificial lighting can be fully mitigated through the use of a sensitive lighting strategy. Measures such as hoods, cowls and louvres can be adopted to direct lighting only to where it is required within the development, with particular care taken with proposals close to the northern and eastern boundaries. The provision of the band of woodland and trees along the north-eastern boundary will also serve to provide a screening function, particularly during the summer months when plants will be in leaf. This will ensure that dark corridors both along the site boundary and also off-site will be maintained post-development, thereby ensuring that the development proposals will not result in adverse impacts to foraging and commuting Horseshoe bats.

5.2.29. Whilst further detailed assessment will be required at the planning application stage, which is anticipated to involve the production of a Shadow Habitats Regulations Assessment (sHRA), based on the scientific evidence obtained from surveys completed in 2020/21, and in light of the avoidance and mitigation measures outlined above, it may be robustly concluded that proposed development at the site would not result in an adverse effect on the integrity of the Wye Valley and Forest of Dean Bat Sites SAC, either when the proposals are considered alone or in combination with other plans or projects.

5.2.30. As a result, it is considered that the European designated site does not pose a fundamental or overriding constraint to the delivery of new development at this site.

Non-statutory sites

5.2.31. There are no non-statutory designated sites located within or immediately adjacent to the site boundary or wider study area. The nearest non-statutory designated site is Mally Brook Valley Site of

Importance for Nature Conservation (SINC), located approximately 0.2km to the north-east of the wider study area at its closest point (see Plan ECO1).

5.2.32. Mally Brook SINC is designated on account of the neutral grassland habitats that the site supports. The site is separated from the SINC by the woodland which adjoins the eastern boundary, open fields and a number of existing residential dwellings. From consideration of OS mapping it does not appear that this designated site is publicly accessible, with no public rights of way passing through the fields.

5.2.33. There are a number of other SINCs located within 1km of the site and wider study area, including:

- Cross Wood SINC, located approximately 0.4km to the north at its closest point;
- Newton Court Farm Orchard SINC, located approximately 0.5km to the north-east;
- Orles Wood SINC, located approximately 0.5km to the north;
- River Monmow SINC, located approximately 0.5km to the south-west; and
- Buckholt SINC, located approximately 0.7km to the north-east.

5.2.34. These non-statutory designated sites are separated from the site and wider study area by land including open fields, a golf course and existing development.

5.2.35. Whilst further assessment of potential effects upon non-statutory designated sites will be required at the application stage, subject to an appropriately designed development and the delivery of avoidance and mitigation as required, it is considered that all potential adverse effects that could arise upon such sites can be fully mitigated.

Ancient Woodland

5.2.36. The desk study did not identify any areas of Ancient Semi-Natural Woodland (ASNW) or Plantation on Ancient Woodland Sites (PAWS) listed on the Ancient Woodland Inventory either within the site boundary or in its immediately vicinity. The nearest parcel of woodland is located approximately 0.4km to the north of the wider study area boundary at its closest point.

<u>Habitats</u>

5.2.37. As outlined above, the majority of the site and wider study area comprise improved grassland fields which are subject to intensive grazing, which are of very limited ecological value in their own right. As a result, losses to this habitat are likely to be of little ecological significance (in terms of habitat only).

5.2.38. The woodland, hedgerows and treelines which separate the fields and demark the boundaries of the site and wider study area are of greater ecological value. Many hedgerow features contain five or more woody species and would therefore be described as 'species-rich'. However, a number of hedgerows are dominated by one or two species (often Hawthorn) – including the hedgerow passing north/south through the site – and hedgerows in the the site and southern part of the wider study area are subject to regular management which limits their structure. Although formal assessment pursuant to the Hedgerow Regulations 1997 has not been undertaken, a number of hedgerows within the wider study area may potentially qualify as 'important' hedgerows.

5.2.39. As illustrated on the Strategic Masterplan (Appendix 9), the emerging development proposals will retain and enhance existing hedgerows and treelines within the site, wherever possible. Extensive areas and lengths of new native and species-rich planting will be provided where minor losses are unavoidable (notably in the form of the woodland belt along the northern boundary of the site). Emerging development proposals for the site will therefore avoid significant adverse effects to these habitats. Indeed, there is scope for net gains to be achieved, which would be likely to benefit a wide range of faunal species and groups (see below).

5.2.40. Moreover, it is considered that the provision of a significant belt of new woodland, tree and scrub planting along the north-eastern boundary of the site. Considered in the context of the poor east-west linear features which are currently present within the site (with significant gaps in hedgerows and treelines, particularly both connecting to and along the southern boundary), the emerging proposals would also further the aims and objectives of improving connectivity along the eastern part of the site and wider study area (as identified on the Habitat Connectivity Map which forms part of the Monmouthshire Ecological Connectivity Assessment).

5.2.41. Consideration of the habitats present within the site with regards to the relevant SINC criteria is outlined in Section 6 below.

5.3. Faunal Evaluation

Bats

5.3.1. **Legislation.** All bats are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and included on Schedule 2 of the Conservation of Habitats and Species Regulations 2017 ("the Habitats Regulations"), as amended. These include provisions making it an offence:

- Deliberately to kill, injure or take (capture) bats;
- Deliberately to disturb bats in such a way as to:-
  (i) be likely to impair their ability to survive, to breed or reproduce, or to rear or nurture their young, or to hibernate or migrate; or

(ii) affect significantly the local distribution or abundance of the species to which they belong;

- To damage or destroy any breeding or resting place used by bats; or
- To intentionally or recklessly to obstruct access to any place used by bats for shelter or protection.

5.3.2. While the legislation is deemed to apply even when bats are not in residence, guidance suggests that certain activities such as re-roofing can be completed outside sensitive periods when bats are not in residence provided these do not damage or destroy the roost.

5.3.3. The words deliberately and intentionally include actions where a court can infer that the defendant knew that the action taken would almost inevitably result in an offence, even if that was not the primary purpose of the act.

5.3.4. The offence of damaging or destroying a breeding site or resting place (which can be interpreted as making it worse for the bat) is an absolute offence. Such actions do not have to be deliberate for an offence to be committed.

5.3.5. European Protected Species licences are available from Natural Resources Wales (NRW) in certain circumstances, and permit activities that would otherwise be considered an offence.

5.3.6. Licences can usually only be granted if the development is in receipt of full planning permission and it is considered that:

(i) The activity to be licensed must be for imperative reasons of overriding public interest or for public health and safety;
(ii) There is no satisfactory alternative; and
(ii) The action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.

5.3.7. **Site Evaluation.** As outlined in Section 4.2 above, there are no buildings, structures or trees present within the site which provide potential opportunities for roosting bats. However, there are a number of trees present within the site which contain features of potential value for this group. There is scope to deliver enhancements for roosting bats compared to the existing situation through the provision of new boxes on suitable mature trees.

5.3.8. The habitats present within the site provide opportunities for foraging and commuting bats in the local area. As outlined above in respect of designated sites, with the provision of significant band of new native woodland, tree and scrub planting along the north-eastern boundary and a sensitive lighting strategy, adverse effects to foraging and commuting bats can be avoided and moreover benefits secured for this group compared to the existing situation.

Hazel Dormice

5.3.9. **Legislation.** The Hazel or Common Dormouse is a scarce UK species that is protected under European and UK law by virtue of its inclusion on:

- Appendix 3 of the Bonn Convention;
- Annex IVa of the EC Habitats Directive;
- Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended); and
- Schedule 5 of the Wildlife and Countryside Act 1981 (as amended)

5.3.10. Dormice are afforded the same level as protection as bat species, both in terms of individual animals and also the habitats which they inhabit.

5.3.11. **Site Evaluation.** The woodland, hedgerows and treelines a present within the site and wider study area provide potential opportunities for Dormice. Although these features are somewhat separated from large areas of woodland in the local area, they are connected to a wider network of habitats beyond the site / wider study area boundary.

5.3.12. In order to inform a robust planning application, it is likely that specific survey work would be required in order to ascertain the presence or absence of this species. However, with the retention and enhancement of existing woodland, treelines and hedgerows (wherever possible), combined with the provision of areas of new native planting, it is considered that the favourable conservation status of this species may be fully safeguarded as part of emerging development proposals, should Dormice be present.

Badgers

5.3.13. **Legislation.** The Protection of Badgers Act 1992 consolidates the previous Badgers Acts of 1973 and 1991. The legislation aims to protect the species from persecution, rather than being a response to an unfavourable conservation status, as the species is in fact common over most of Britain, with particularly high populations in the south-west.

5.3.14. As well as protecting the animal itself, the 1992 Act also makes the intentional or reckless destruction, damage or obstruction of a Badger sett an offence. A sett is defined as "*any structure or place which displays signs indicating current use by a Badger*". 'Current use' is usually defined as any use within the preceding 12 months, although there is a degree of professional judgement.

5.3.15. In addition, the intentional elimination of sufficient foraging area to support a known social group of Badgers may, in certain circumstances, be construed as an offence by constituting 'cruel ill treatment' of a Badger.

5.3.16. Previous guidelines issued by Natural England[16] on the types of activity that it considers should be licensed within certain distances of sett entrances. They stated that works that may require a licence include using heavy machinery within 30m of any entrance to an active sett, using lighter machinery within 20m, and light work such as hand digging within 10m. However, interim guidance issued in September 2007 specifically states that:

"*It is not illegal, and therefore a licence is not required, to carry out disturbing activities in the vicinity of a sett if no Badger is disturbed and the sett is not damaged or obstructed."*

5.3.17. More recent guidance produced in 2009 states that Badgers are relatively tolerant of moderate levels of disturbance and that low levels of disturbance at or near to Badger setts do not necessarily disturb the Badgers occupying those setts[17]. However, the guidance continues by stating that any activity that will, or is likely to, cause one of the interferences defined in Section 3 (such as damaging a sett tunnel or chamber or obstructing access to a sett entrance) will continue to be licensed.

5.3.18. In addition, this latest guidance no longer makes reference to any 30m/20m/10m radius as a threshold for whether a licence would be required. Nonetheless, it is stated that tunnels may extend for 20m so care needs to be taken when implementing excavating operations within the vicinity of a sett and to take appropriate precautions with vibrations and noise, etc. Fires / chemicals within 20m of a sett should specifically be avoided.

5.3.19. This interim guidance allows greater professional judgement as to whether an offence is likely to be committed by a particular development activity and therefore whether a licence is required or not. For example, if a sett clearly orientates southwards into an embankment it may be somewhat redundant to have a 30m-exclusion zone to the north.

5.3.20. [redacted]

5.3.21. Through the delivery of an appropriately designed development which seeks to retain and minimise potential disturbance to identified setts, and incorporates the provision of informal open space, it is considered that Badgers may be safeguarded from harm and that enhancements can be delivered for this species in the long term.

[16] Whilst the guidelines were issued by Natural England as opposed to Natural Resources Wales, they are considered to be relevant to Monmouthshire

[17] Natural England (2009). *Protection of Badgers Act 1992 (as amended). Interpretation of Disturbance in relation to Badgers occupying a sett*. Natural England, Peterborough.

Birds

5.3.22. **Legislation.** Section 1 of the Wildlife and Countryside Act is concerned with the protection of wild birds, whilst Schedule 1 lists species which are protected by special penalties.

5.3.23. **Site Evaluation.** There are some opportunities for nesting birds in the woodland, hedgerows and treelines within the site and wider study area, although the site is not considered to be of any particular significance for bird species.

5.3.24. Through the retention of existing vegetation, wherever possible, and the provision of new native planting, it is considered that emerging development proposals for the site provide an opportunity to enhance the value of the site for nesting and foraging birds. There is also scope to provide further enhancements through the provision of bird nesting boxes.

6. CONSIDERATION OF SINC DESIGNATION CRITERIA

6.1. In this Section, consideration has been afforded to the current ecological baseline at the site in light of the SINC Selection Criteria[5] which have been adapted for Monmouthshire[6].

6.2. With regard to the habitats present within the site and wider study area boundary, these have been assessed against the following habitat types in order to establish whether the criteria for designation have been met, or have potential to be met:

H1 – Woodlands
H15 – Watercourses
H17 – Hedgerows

6.3. In each case, it has been concluded that the site falls below the threshold for designation as a SINC. Given that the primary habitat present within the site and wider study area is improved grassland pasture, this is perhaps unsurprising.

6.4. With regard to hedgerows (criterion H15), although the site and wider study area supports a network of hedgerows that are considered to be species-rich, given that the average field size significantly exceeds 4 hectares, they are not considered to represent 'close networks' under the definition set out in the criteria. As such whilst it is acknowledged that they are of ecological value at the site level (as above), the site and wider study area is considered to be below the threshold for designation as a SINC on account of hedgerows.

6.5. With regard to the species which the site and wider study area supports (or is considered likely to support), the following species categories have been assessed in order to establish whether the criteria for designation have been met, or have potential to be met:

S1 – Mammals
S2 – Birds
S6 – Invertebrates
S7 – Vascular Plants

6.6. With regard to mammals (criterion S1), as noted above it is anticipated that specific survey work would be required in respect of Hazel Dormice. Based on the evidence obtained to date (from the extended Phase 1 survey, desk study exercise and bat surveys completed in 2020), it is considered very unlikely that the site and wider study area would meet the threshold for designation under this criterion.

6.7. With regard to birds (criterion S2), although the site and wider study area is considered likely to support an assemblage of breeding birds, it is considered very unlikely that they would be of any particular significance to birds of conservation significance as listed in the relevant table. As such, again it is concluded that the threshold for designation as a SINC would not be met.

6.8. With regard to invertebrates (criterion S6), given the habitats present and the current management regime it is considered that the site and

wider study area would not be likely to support any significant population or assemblages of notable species that would meet the threshold for designation as a SINC.

6.9. Similarly, with regard to vascular plants (criterion S7), none of the 'primary' species were recorded during the survey, and a total of three 'contributory' species (Black Horehound, White Bryony and Mistletoe). As such it is again considered that the site and wider study area would not meet the threshold for designation under this criterion.

6.10. In conclusion, having considered all relevant criteria, there is no evidence to indicate that the site or indeed the wider study area would meet the threshold for designation as a SINC on any grounds.

7. SUMMARY AND CONCLUSIONS

7.1. Ecology Solutions was commissioned by Redrow Homes Limited in August 2019 to undertake a preliminary ecological appraisal of Leasbrook, Monmouthshire.

7.2. There are no statutory or non-statutory sites designated sites of nature conservation interest situated within or adjacent to the site or wider study area.

7.3. Specific survey work has been undertaken throughout 2020 in respect of bats to determine the extent to which Horseshoe bats associated with Newton Court Stable Block SSSI / Wye Valley and Forest of Dean Bats Sites SAC utilise the site and wider study area. As outlined in this report, whilst Horseshoe bats were recorded to utilise the site, activity levels were limited and, on the evidence obtained, it is considered likely that the site is used on occasion for foraging. Subject to an appropriately designed development coming forward, which incorporates avoidance and mitigation measures such as the provision of a woodland and tree belt along the north-eastern boundary and a sensitive lighting strategy, it is considered that emerging development proposals may come forward for the site that will avoid an adverse impact upon the integrity of any designated sites.

7.4. The majority of the site and wider study area comprises improved grassland fields which are of very limited ecological value. The woodland, hedgerows and treelines present within the site and wider study area are of greater value, with a number of hedgerows described as species rich. Through the retention and enhancement of existing habitats, and the provision of new species-rich native planting, there is potential for emerging development proposals for the site to deliver enhancements compared to the existing situation.

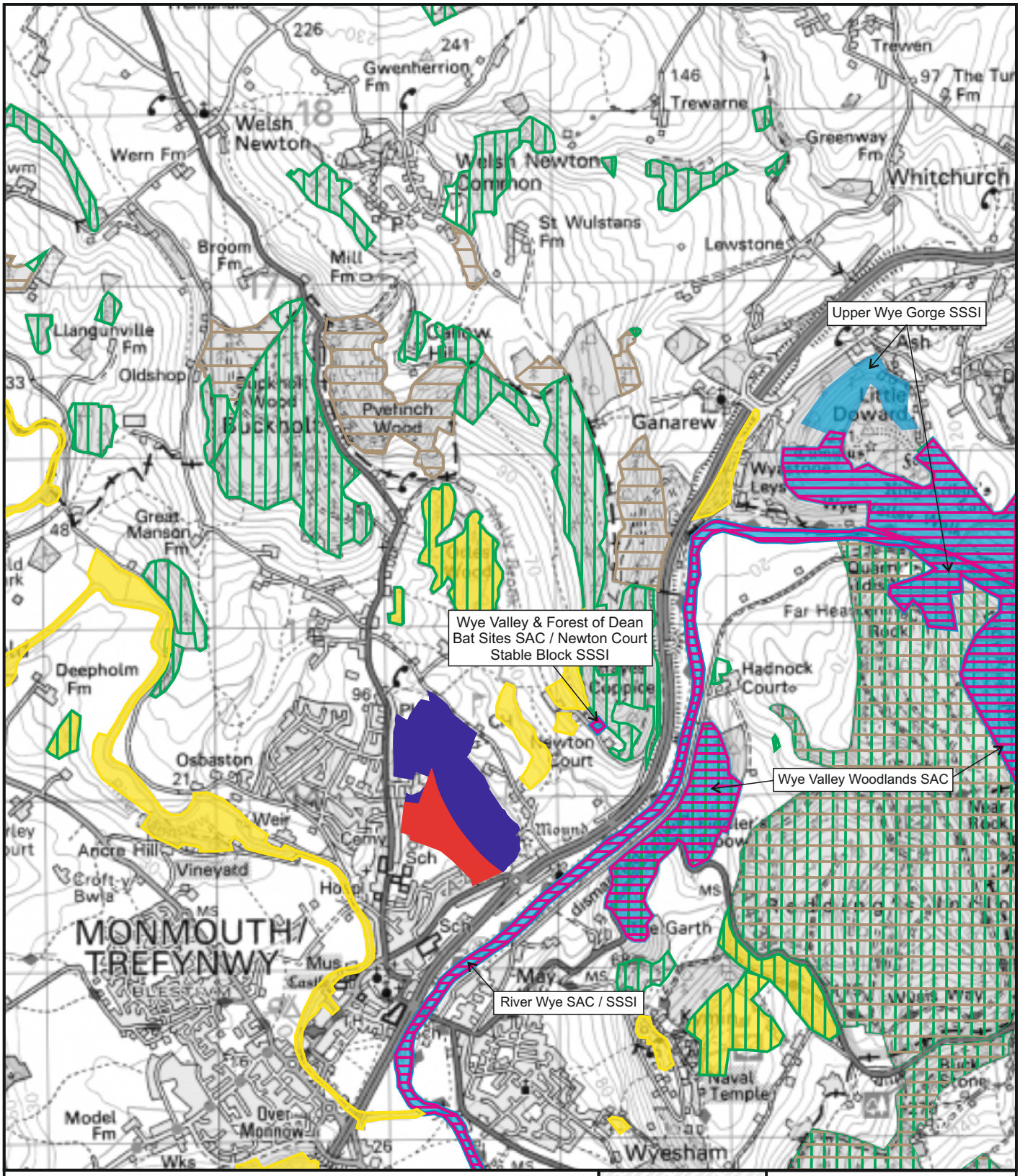
7.5. Consideration has also been afforded to the potential use of the site and wider study area by protected and notable species / groups, such as bats, Badgers, Hazel Dormice, birds and invertebrates. Subject to an appropriately designed development scheme coming forward at the site, which incorporates avoidance, mitigation and enhancement measures as required, it is considered that opportunities for faunal species may be retained and moreover that there is scope to deliver net gains for biodiversity post-development.

7.6. In conclusion, on the evidence of the ecological surveys undertaken, the site is not considered to be of particularly high intrinsic value from an ecology and nature conservation perspective. Depending on the design of any proposed development and the implementation of mitigation measures, as required, adverse effects on any designated sites or protected species can be avoided. Moreover, it is considered that emerging proposals can deliver enhancements for biodiversity over the existing situation and provide for net biodiversity gain.

PLANS

PLAN ECO1

Site Location and Ecological Designations



KEY:

- SITE LOCATION
- WIDER SURVEY AREA
- SPECIAL AREA OF CONSERVATION (SAC)
- SITE OF SPECIAL SCIENTIFIC INTEREST (SSSI)
- LOCAL WILDLIFE SITE (LWS) / SITE OF IMPORTANCE FOR NATURE CONSERVATION (SINC)
- ANCIENT AND SEMI-NATURAL WOODLAND
- ANCIENT (REPLANTED) WOODLAND

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7887: LEASBROOK, MONMOUTH

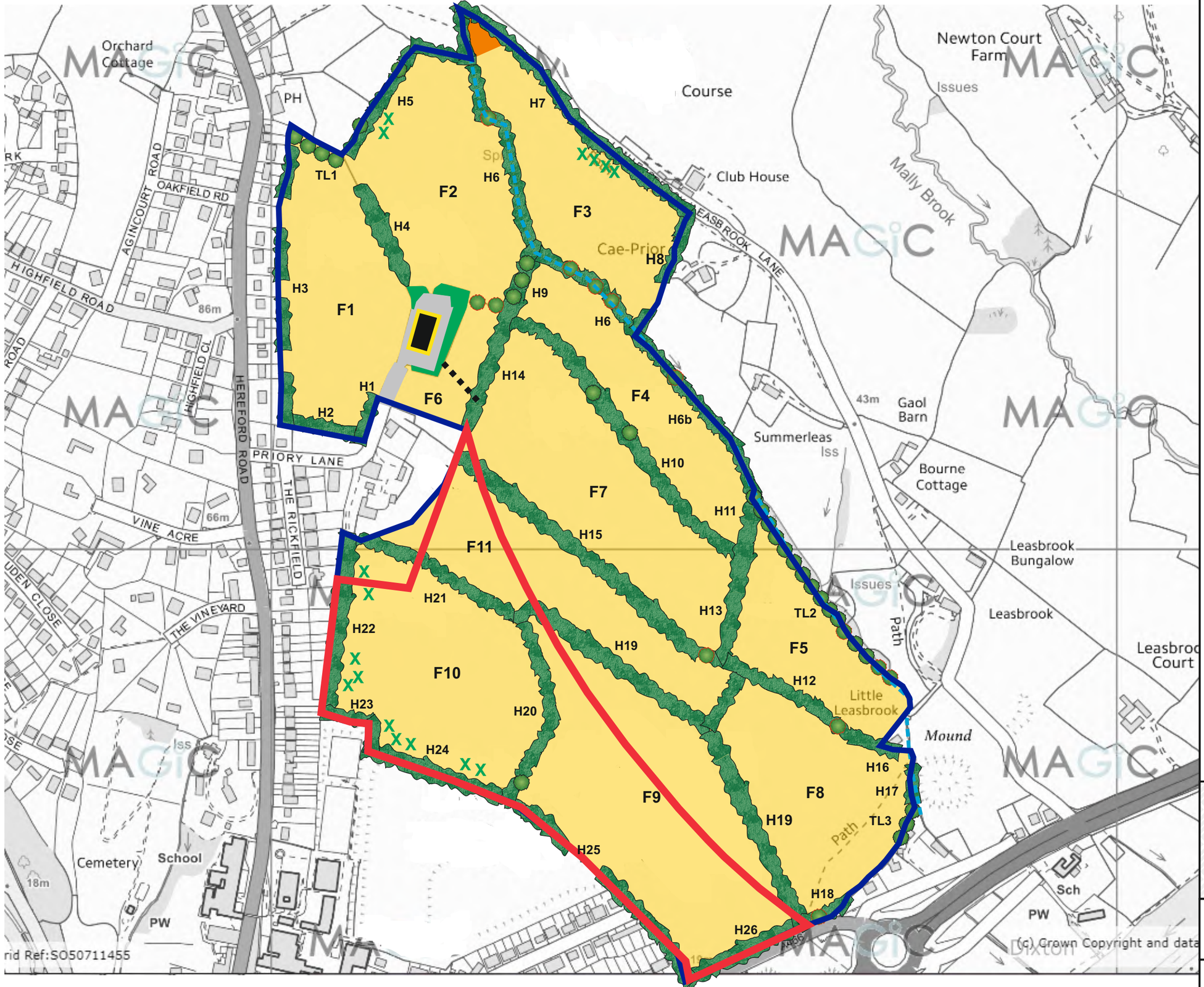
PLAN ECO1: SITE LOCATION AND ECOLOGICAL DESIGNATIONS

Rev: A

FEB 2021

PLAN ECO2

Ecological Features



KEY:

- SITE BOUNDARY
- WIDER SURVEY AREA
- IMPROVED GRASSLAND
- ROUGHER GRASSLAND
- WOODLAND
- TREELINE
- TREE WITH POTENTIAL TO SUPPORT ROOSTING BATS
- HEDGEROW
- SCATTERED SCRUB
- STREAM
- BUILDING
- HARDSTANDING

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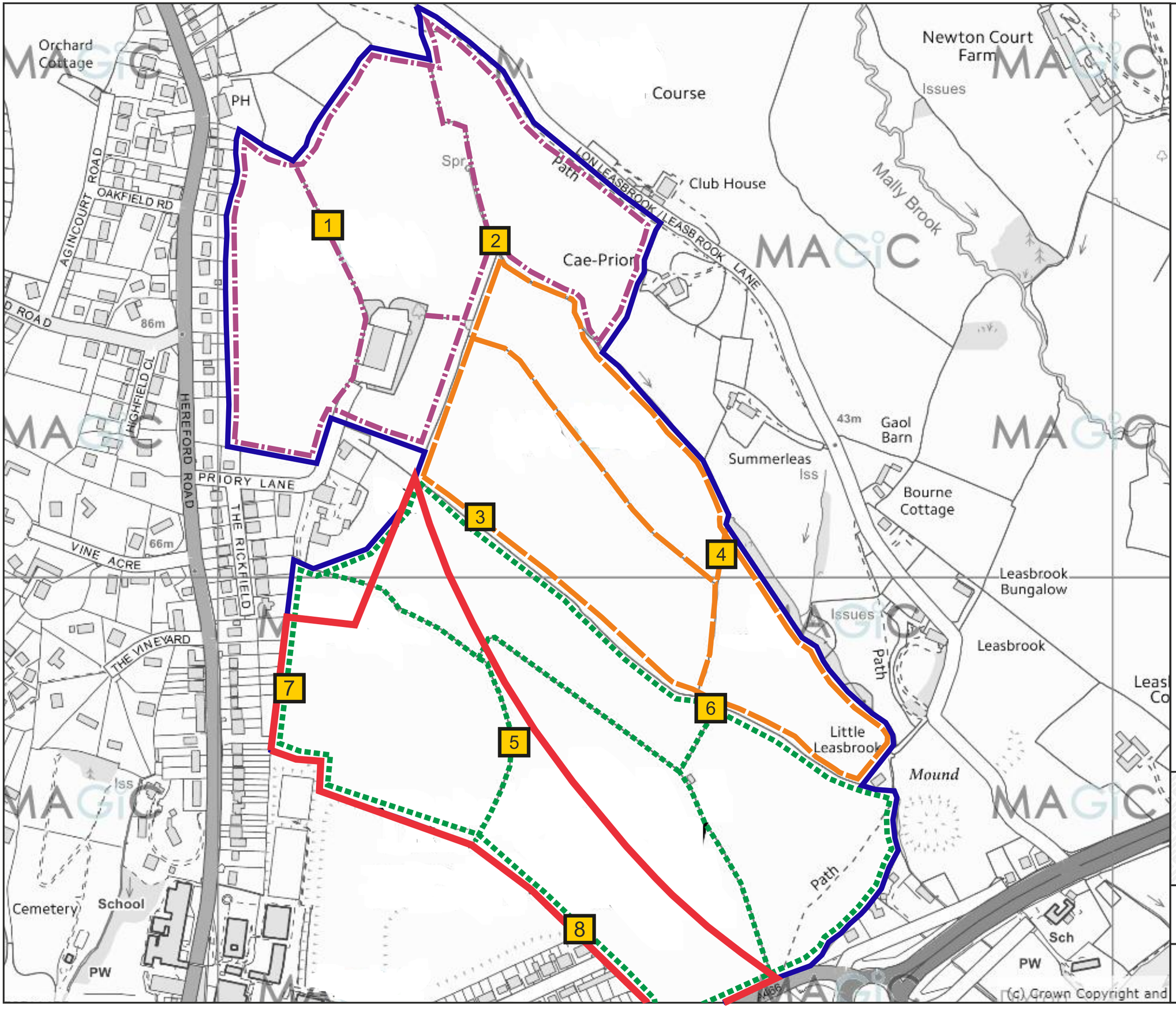
PLAN ECO2: ECOLOGICAL FEATURES

Rev: A

FEB 2021

PLAN ECO3

Bat Survey: Transects and Static Detector Locations



KEY:

- SITE BOUNDARY
- WIDER SURVEY AREA
- TRANSECT 1
- TRANSECT 2
- TRANSECT 3
- STATIC DETECTOR LOCATION

N

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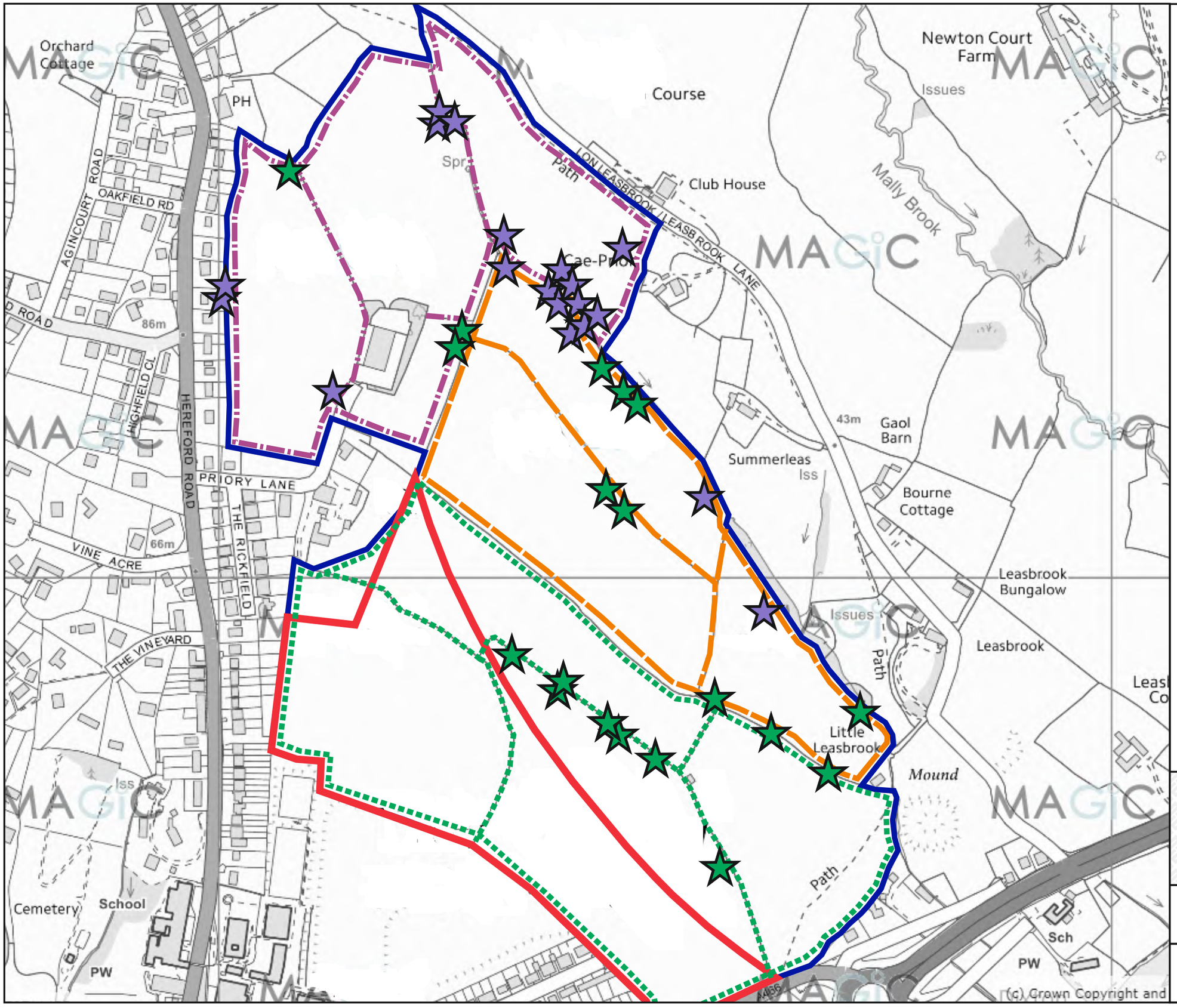
PLAN ECO3: BAT ACTIVITY SURVEY PLAN

Rev: A

FEB 2021

PLAN ECO4

Horseshoe Bat Registrations (Jul + Aug 2020)



KEY:

- SITE BOUNDARY
- WIDER SURVEY AREA
- TRANSECT 1
- TRANSECT 2
- TRANSECT 3
- JULY HORSESHOE REGISTRATIONS
- AUGUST HORSESHOE REGISTRATIONS

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PLAN ECO4: HORSESHOE BAT REGISTRATIONS (JULY & AUGUST 2020)

Rev: A

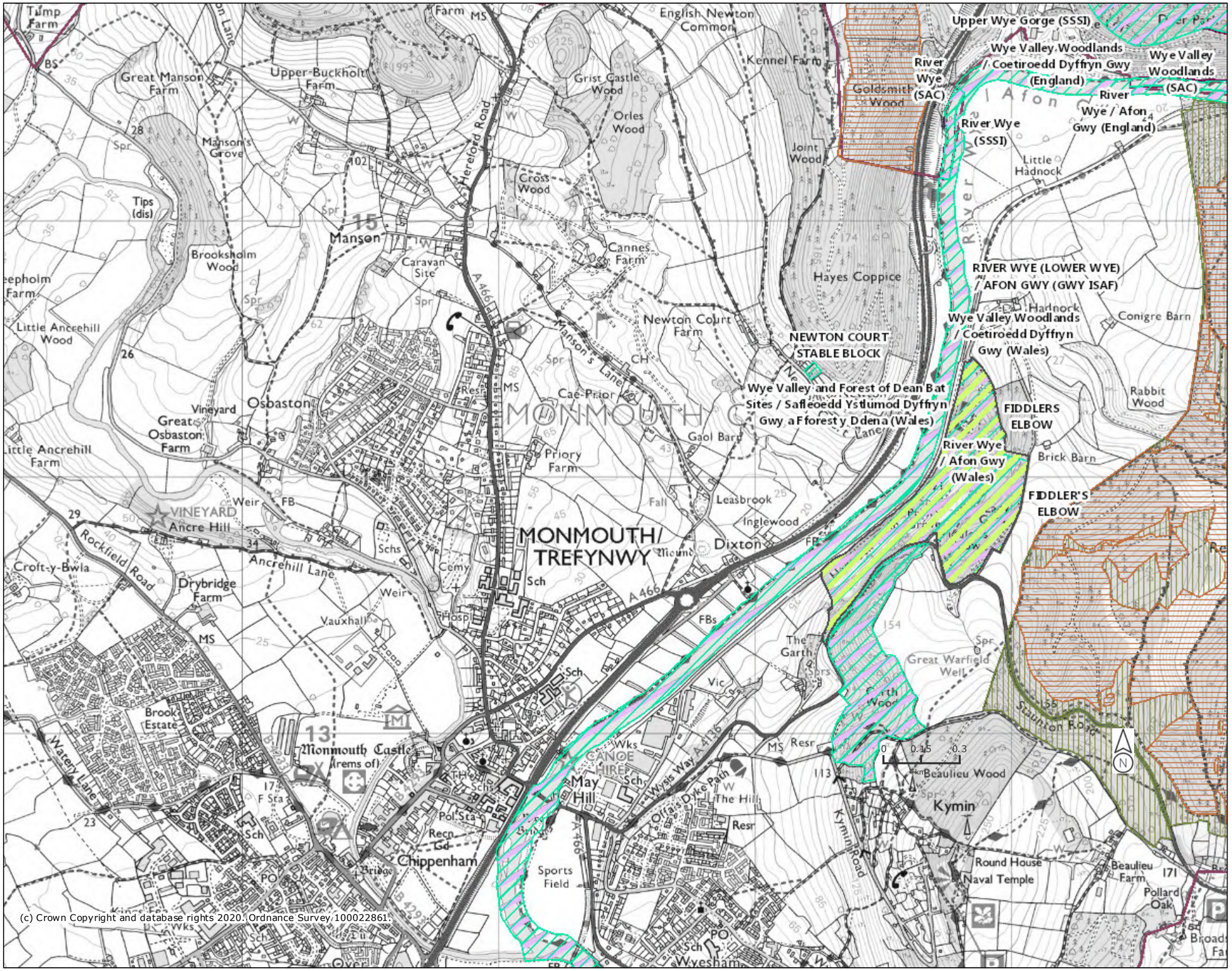
FEB 2021

APPENDICES

APPENDIX 1

Information obtained from MAGIC and Lle Geo-portal

Land North East of Monmouth



Legend

- Local Nature Reserves (England)
- National Nature Reserves (England)
- National Nature Reserves (Wales)
- Ramsar Sites (England)
- Ramsar Sites (Wales)
- Sites of Special Scientific Interest (England)
- Sites of Special Scientific Interest (Wales)
- Special Areas of Conservation (England)
- Special Areas of Conservation (Wales)
- Special Protection Areas (England)
- Special Protection Areas (Wales)

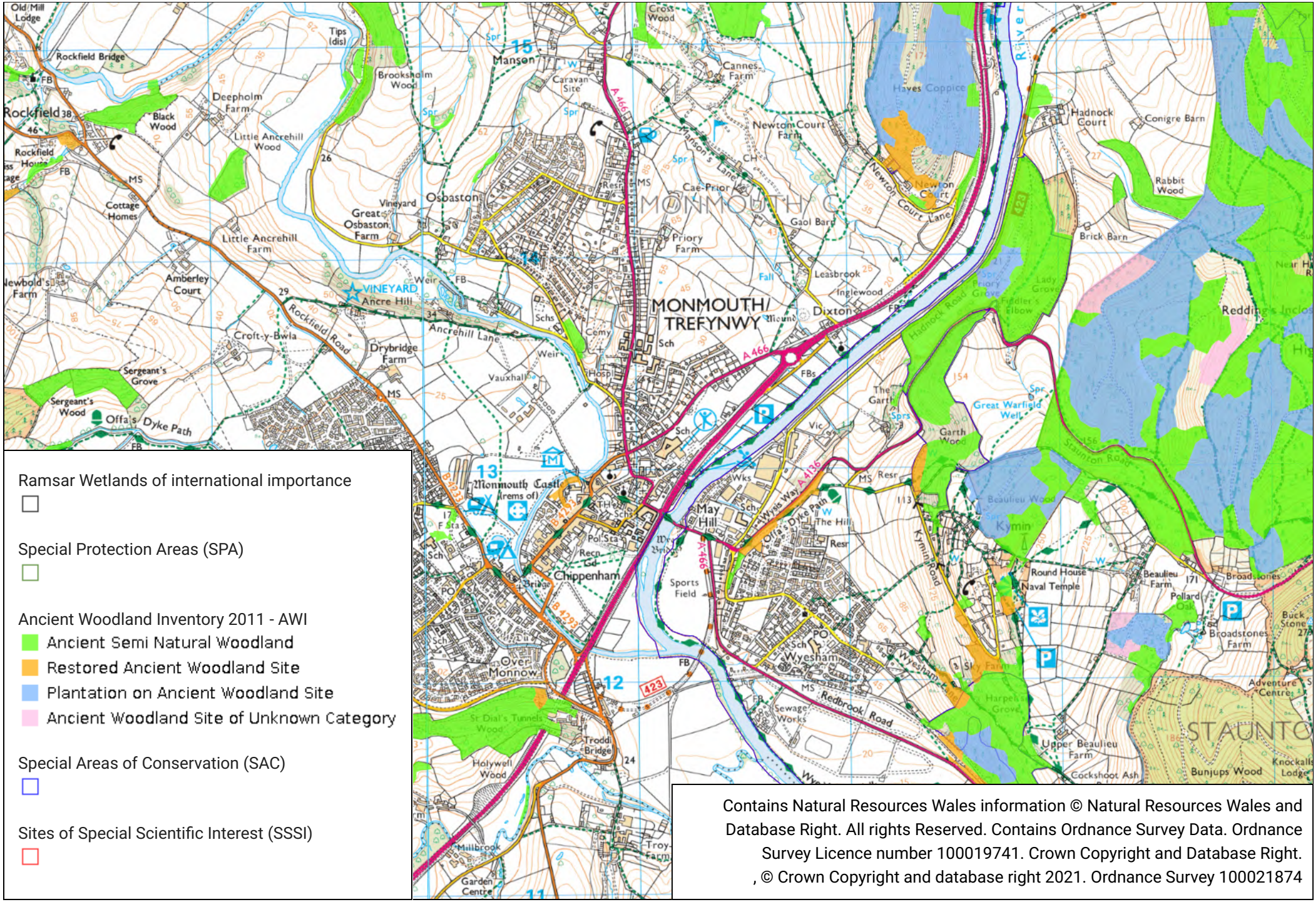
Ancient Woodland (England)

- Ancient and Semi-Natural Woodland
- Ancient Replanted Woodland

Projection = OSGB36
xmin = 347700
ymin = 212100
xmax = 355200
ymax = 215800

0 0.25 0.5 km

Map produced by MAGIC on 2 March, 2020.



APPENDIX 2

Further Analysis of Bat Survey Results (Location 5),
July and August 2020

	LOCATION 5										
	MONITORING NIGHT (9th - 20th July)										
SPECIES	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*
RHIFER	**18**	**8**	**5**	**6**		**3**	**7**		**3**	**1**	
RHIHIP							**2**		**1**		

	MONITORING NIGHT										
TIME	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*
21:00							GHS [21:57:42]				
22:00	14 x GHS [22:19:40 - 22:37:55]	8 x GHS [22:27:02 - 22:51:32]	4 x GHS [22:17:34 - 22:20:56]	6 x GHS [22:30:12 - 22:34:34]		GHS [22:26:04]	3 x GHS [22:00:55 - 22:02:21]		GHS [22:01:57]	GHS [22:13:30]	
23:00	4 x GHS [23:16:03 - 23:19:37]		GHS [23:49:24]						LHS [23:38:30]		
00:00											
01:00							LHS [01:46:21]				
02:00											
03:00						GHS [03:35:20]	LHS [03:58:07]				
04:00						GHS [04:26:34]	3 x GHS [04:15:41 - 04:21:30]		2 x GHS [04:13:22 - 04:14:58]		

	LOCATION 5						
	MONITORING NIGHT (12th - 18th August)						
SPECIES	*1*	*2*	*3*	*4*	*5*	*6*	*7*
RHIFER		**2**	**3**	**3**		**19**	
RHIHIP				**1**		**1**	

	MONITORING NIGHT						
TIME	*1*	*2*	*3*	*4*	*5*	*6*	*7*
20:00						GHS [20:59:58]	
21:00			GHS [21:23:04]	1 x LHS [21:34:54], 3 x GHS [21:08:46 - 21:45:24]		11 x GHS [21:01:16 - 21:13:16]	
22:00		GHS [22:29:!5]					
23:00							
00:00							
01:00		GHS [01:22:46]				LHS [01:18:24]	
02:00						GHS [02:40:44]	
03:00						5 x GHS [03:35:44 - 03:37:19	
04:00			GHS [04:59:21]				
05:00			GHS [05:04:23]			GHS [05:04:28}	

APPENDIX 3

River Wye (Lower Wye) SSSI Citation

CYNGOR CEFN GWLAD CYMRU
COUNTRYSIDE COUNCIL FOR WALES

SITE OF SPECIAL SCIENTIFIC INTEREST CITATION

MONMOUTHSHIRE/POWYS
HEREFORD AND WORCESTER/
GLOUCESTERSHIRE/

RIVER WYE (LOWER WYE)/
AFON GWY (GWY ISAF)

Date of Notification: 1978, 1996

National Grid References: SO230429 – ST544912

O.S. Maps: 1:50,000 Sheet number: 148, 149, 162
1:10,000 Sheet number: SO63SW, ST59SW,NW
SO51SW,NW,SE,NE
SO62NW, SO53SE,NE,NW
SO50SW,NW, SO61NW,
SO52SE,NE,NW,
SO44SE,SW, SO43NE,NW,
SO34SE,SW, SO24NE,NW,SW

Site Area in Wales: 245.2 ha

Description:

River Wye

Together, the River Wye (Lower Wye) and the River Wye (Upper Wye) SSSIs and several of their tributaries represent a large, linear ecosystem which acts as an important wildlife corridor, an essential migration route and a key breeding area for many nationally and internationally important species. The Wye is of special interest for its associated plant and animal communities. Its character spans a range of types from an upland, base-poor stream to an estuarine, silty lowland river. The river's overall diversity is a product of its underlying geology, soil type, adjacent land use and fluvio-geomorphological regime.

The River Wye forms one of the longest rivers in England and Wales. From its sources to its confluence, the main channel is 250 kms long, drains a catchment of 4136 km^2 and has the fourth largest flow of any river in England and Wales. Rising at an altitude of 680m on Pumlumon Fawr in Powys, the Wye meanders down through Wales, Herefordshire and Gloucestershire, finally entering the Severn Estuary at Chepstow.

River Wye (Lower Wye) (Hay on Wye to Chepstow)

The River Wye (Lower Wye) is a rare example of a large western eutrophic river which, unlike many rivers of a similar type, has not been subject to many significant modifications from human activities. The river is of special interest for three main aquatic plant community types – rivers on sandstone, mudstone and hard limestone; clay rivers; and lowland rivers with minimal gradient, as well as for certain flowering plants and bryophytes.

The river shows a clear downstream succession in plant communities reflecting variations in geology, flow rate and landuse. In particular the river exhibits a natural increase in dissolved minerals as it flows over the underlying geology of Old Red Sandstone and Carboniferous Limestone. Localised differences in water chemistry are also created where major tributaries, such as the River Lugg, enter the main channel. In its tidal reaches the river becomes increasingly saline as it nears its confluence with the Severn Estuary.

The invertebrate fauna (molluscs; beetles; mayflies; caddis flies; trueflies and dragonflies) is characteristic of a large lowland river and is of special interest for species associated with riffles, river shingles, salt marsh, river deadwood and bankside vegetation. The fish fauna includes Atlantic salmon *Salmo salar*, twaite shad *Alosa fallax*, allis shad *Alosa alosa* and bullhead *Cottus gobio* as well as three species of lamprey *Petromyzon marinus, Lampetra planeri* and *Lampetra fluviatilis* which are all of European importance and are listed on Annex II of the EC Directive 92/43/EEC. The site is also of international importance for its Atlantic stream crayfish *Austropotamobius pallipes*, common otter *Lutra lutra* and beds of water crowfoot *Ranunculus spp*..

Whilst not a special feature of the site, there is a good range of breeding birds associated with riverine habitats.

The SSSI incorporates adjacent areas of riparian habitat including wet woodland, marshy grassland, reed beds and topographical features which directly support the special interest of the river.

Geology and Topography

The catchment of the River Wye (Lower Wye) is 2513 km^2 in area and is predominantly low lying, the Radnor Forest and Black Mountains being the most significant upland areas within it. The River Wye (Lower Wye) is thus lowland in character, meandering across a floodplain up to 2 km wide within a hilly terrain and falling from 72m AOD at Hay-on-Wye to sea level over a distance of 157 km. There are extensive glacial and glaciofluvial deposits downstream of Hay-on-Wye.

Between Hay-on-Wye and Goodrich the River Wye (Lower Wye) flows over a Lower Old Red Sandstone substrate composed of sandstones and marls with occasional limestone beds. The river bed comprises gravels, silt and occasional boulders. Below Goodrich it enters the Wye Valley Gorge. Here the river flows over Carboniferous Limestone outcrops cutting near-vertical cliffs within a restricted floodplain. Over millions of years land uplift has caused the channel to become incised, leaving distinct shelves of land like that at Livox Quarry. The floodplain widens where major tributaries such as the Trothy and Monnow join the main channel before the river re-enters the Wye Valley Gorge again with its vertical limestone cliffs and more gentle sandstone and mudstone slopes.

In the lower parts of the Wye Gorge the river becomes tidal and brackish and there is a gradual transition to estuarine conditions. Bedrock and boulders commonly constitute the bank and bed material but are usually overlain with silty alluvium. At Chepstow dramatic vertical cliffs have been cut through the limestone. Between Chepstow and the Severn Estuary the river flows over Triassic Mercia mudstones which eventually give way to the alluvium of the Severn coastal plain.

The River Wye (Lower Wye) has remained relatively free from man-made straightening, widening or deepening schemes. The upper and middle sections of the river are active; migrating meanders depositing shingle point bars and islands, and cutting vertical faces into the banks. The pattern of meander loops along the entire length of the river is complex, steep outer slopes contrasting with shallow slip-off slopes.

In many places increased gradients expose extensive gravel substrates over which the river forms complex pool and riffle sections. Few examples of oxbow lakes and active back channels remain adjacent to the river.

Flora

In its upper and middle reaches the river channel is dominated by submerged flowering plants such as spiked water-milfoil *Myriophyllum spicatum* and beds of water crowfoot. Other common plants included rigid hornwort *Ceratophyllum demersum* and perfoliate pondweed *Potamogeton perfoliatus*. Rare aquatic species include whorled water-milfoil *Myriophyllum verticillatum*. In the lower reaches of the river through the Wye Gorge the calcium and nutrient content of the water increases. Here aquatic vegetation is mainly comprised of pondweed species such as fennel pondweed *Potamogeton pectinatus* and curled pondweed *P crispus*. Aquatic macrophytes disappear below the tidal limit at Brockweir and marginal vegetation is often absent or much reduced below this point due to tidal scour. However, some species thrive along the transition zone between brackish and freshwater conditions where large areas of mud are exposed at low tide.

Marginal vegetation often consists of reed canary-grass *Phalaris arundinacea* and branched bur-reed *Sparganium erectum*. Other marginal plants such as amphibious bistort *Persicaria amphibia*, brooklime *Veronica beccabunga*, yellow-cress *Rorippa spp* and water forget-me-not *Myosotis scorpioides* are widespread and frequent. (The nationally scarce horsetail *Equisetum x litorale* is found growing along the margins of the river in its upper section). Below Brockweir the upper mud banks of the river are colonised by salt-marsh species such as sea aster Aster tripolium, saltmarsh-grass *Puccinellia spp* and sea-milkwort *Glaux maritima*.

Characteristic bankside plants include stinging nettle *Urtica dioica*, great willowherb *Epilobium hirsutum* and reed canary-grass *Phalaris arundinacea*. Locally the river bank vegetation can be diverse containing species such as common knapweed *Centaurea nigra* and comfrey *Symphytum spp*. A number of rare and restricted species occur along the river banks including common meadow-rue *Thalictrum flavum*, meadow saxifrage *Saxifraga granulata* and chives *Allium schoenoprasum*. The latter species grows in deep crevices in riverside outcrops and bedrock. Along wooded brackish reaches of the river, the banks become almost entirely dominated by stands of couch grass *Elytrigia repens*.

The river banks is frequently tree lined. Willows *Salix spp* are common along the upper and middle sections, whilst alder *Alnus glutinosa* and ash *Fraxinus excelsior* become more frequent in the lower reaches. Sycamore *Acer pseudoplatanus* is widespread along the length of the river.

The adjacent landuse through the Herefordshire Plain is dominated by mixed farming with occasional oak *Quercus spp*., ash and sycamore woodland running down to the river. Below Goodrich the river enters the Wye Valley Gorge cutting through a landscape of permanent pasture and steep woodlands before flowing through the coastal grassland plain and entering the Severn Estuary.

Mammals

The common otter is widespread along the length of the river where appropriate bankside cover exists. The roots of mature bankside trees are often used as otter holts. Water voles *Arvicola terrestris* can be found along the middle sections of the river. The bankside tree cover provides valuable feeding and roosting habitats for several bat species including the greater horseshoe *Rhinolophus ferrumequinum* and Daubenton's bat *Myotis daubentonii*.

Invertebrates

The Lower River Wye's invertebrate community is characteristic of a large lowland river. Several invertebrate species associated with such conditions include the nationally rare mayfly *Potamanthus luteus* and the caddis fly *Hydroptila lotensis* together with the nationally scarce stonefly *Brachyptera putata* and the club-tailed dragonfly *Gomphus vulgatissimus*. Through the middle reaches of the river the black-tail skimmer *Orthetrum cancellatum* breeds on the north western edge of its distribution. The thick emergent fringes of vegetation on the banks provide cover and breeding habitat for the white-legged damselfly *Platycnemis pennipes*.

The river is of high invertebrate interest for species associated with riffle, shingle and saltmarsh habitats. Of particular interest are the riffle beetles *Normandia nitens* and *Oulimnius major* and the shingle beetle *Neobisnius proxlixus*, all of which are nationally rare. Nine other nationally scarce beetles associated with these habitats have been recorded including *Chaetocnema sahlbergi* and *Pogonus littoralis* which are both found on saltmarsh.

Several nationally rare invertebrate species are associated with river dead wood such as the beetle *Macronychus quadrituberculatus* and the caddis flies *Oecetis notata*. Other nationally rare species are associated with sandy river banks such as the cranefly *Limonia omissinervis*.

Bankside trees and tall ruderal herbs provide ideal habitat for five nationally scarce species of moth including the waved carpet *Hydrelia sylvata* and the micro moth *Mompha langiella*.

All six British species of unionid mussels occur on the river, including the scarce depressed river mussel *Pseudanodonta complanata*. This is believed to be a unique assemblage in Britain. The nationally rare snail *Pseudamnicola confusa* is also present and is restricted to the saline reaches of the river.

Fish

The river has a wide range of migratory and non-migratory fish species. The most abundant coarse fish species include chub *Leuciscus cephalus*, dace *Leuciscus leuciscus* and pike *Esox lucius* which, together with roach *Rutilus rutilus* and perch *Perca fluviatilis*, are the most widely distributed fish along the river. Species such as tench *Tinca tinca* and ruffe *Gymnocephalus cernua* are restricted to the lower reaches.

Sea lamprey *Petromyzon marinus*, river lamprey *Lampetra fluviatilis*, twaite shad and the very rare allis shad all migrate into the river each year from the Severn Estuary and spawn at various localities along its length. Large numbers of elvers *Anguilla anguilla* migrate up the river with the spring high tides. The river also supports internationally important populations of brook lamprey *Lampetra planeri* and bullhead.

Several game fish species including grayling *Thymallus thymallus*, brown trout Salmo *trutta fario* and sea trout *Salmo trutta trutta* breed and migrate along the River Wye (Lower Wye). Important numbers of Atlantic salmon migrate up the main channel to reach spawning grounds in the headwaters of the Wye.

Birds

The River Wye (Lower Wye) supports a diverse assemblage of breeding birds associated with rivers. Several species including the mute swan *Cygnus olor* and coot *Fulica atra* are associated with its slow flowing reaches and breed along the length of the river. However, species associated with upland streams and rivers such as dipper *Cinclus cinclus* and grey wagtail *Motacillia cinerea* also breed along the faster flowing sections, especially where rapids occur. Sedge warbler *Acrocephalus schoenobaenus* and reed bunting *Emberiza schoeniclus* breed in riparian habitat along the river banks.

Extensive shingle shoals provide suitable breeding habitat for little ringed plover *Charadrius dubius* whilst vertical banks provide nesting sites for sand martin *Riparia riparia* and kingfisher *Alcedo atthis*. Goosanders *Mergus merganser* are present throughout most of the year. The tidal reaches of the river support breeding shelduck *Tadorna tadorna* and an established heronry *Ardea cinerea*.

Occasional low lying and wet areas adjacent to the river support breeding wader species including snipe *Gallinago gallinago* and lapwing *Vanellus vanellu* whilst common sandpiper *Actitis hypoleucos* is widely distributed along the length of the river.

Remarks

The site supports the following species and habitats covered by EC 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora:

Floating vegetation of *Ranunculus* of plain, submountainous rivers	- Annex I
Atlantic stream crayfish *Austropotamobius pallipes*	- Annex II and V
Common otter *Lutra lutra*	- Annex II and IV
Atlantic salmon *Salmo salar*	- Annex II and V
Bullhead *Cottus gobio*	- Annex II
Twaite shad *Alosa fallax*	- Annex II and V
Allis shad *Alosa alosa*	- Annex II and V
Brook lamprey *Lampetra planeri*	- Annex II
Sea lamprey *Petromyzon marinus*	- Annex II
Grayling *Thymallus thymallus*	- Annex V
Freshwater pearl mussel *Margaritifera margaritifera*	- Annex II and V
River lamprey *Lampetra fluviatilis*	- Annex II and V

Common otter, Atlantic stream crayfish and freshwater pearl mussel are also listed under Schedule 5 of the Wildlife and Countryside Act 1981, as amended.

Part of the River Wye (Lower Wye) SSSI falls within the Wye Valley Area of Outstanding Natural Beauty (AONB).

APPENDIX 4

River Wye SAC Natura 2000 Standard Data Form

NATURA 2000 – STANDARD DATA FORM

Special Areas of Conservation under the EC Habitats Directive (includes candidate SACs, Sites of Community Importance and designated SACs).

Each Natura 2000 site in the United Kingdom has its own Standard Data Form containing site-specific information. The data form for this site has been generated from the Natura 2000 Database submitted to the European Commission on the following date:

22/12/2015

The information provided here, follows the officially agreed site information format for Natura 2000 sites, as set out in the Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 (2011/484/EU).

The Standard Data Forms are generated automatically for all of the UK's Natura 2000 sites using the European Environment Agency's Natura 2000 software. The structure and format of these forms is exactly as produced by the EEA's Natura 2000 software (except for the addition of this coversheet and the end notes). The content matches exactly the data submitted to the European Commission.

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

Further technical documentation may be found here
http://bd.eionet.europa.eu/activities/Natura_2000/reference_portal

As part of the December 2015 submission, several sections of the UK's previously published Standard Data Forms have been updated. For details of the approach taken by the UK in this submission please refer to the following document:
http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

More general information on Special Areas of Conservation (SACs) in the United Kingdom is available from the SAC home page on the JNCC website. This webpage also provides links to Standard Data Forms for all SACs in the UK.

Date form generated by the Joint Nature Conservation Committee
25 January 2016.

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE **UK0012642**

SITENAME **River Wye/ Afon Gwy**

TABLE OF CONTENTS

1. SITE IDENTIFICATION

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1.1 Type	1.2 Site code
B	UK0012642

1.3 Site name

River Wye/ Afon Gwy

1.4 First Compilation date	1.5 Update date
1998-06	2015-12

1.6 Respondent:

Name/Organisation: Joint Nature Conservation Committee

Address: Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY

Email:

Date site proposed as SCI:	1998-06
Date site confirmed as SCI:	2004-12
Date site designated as SAC:	2005-04
National legal reference of SAC designation:	Regulations 11 and 13-15 of the Conservation of Habitats and Species Regulations 2010 (http://www.legislation.gov.uk/uksi/2010/490/contents/made).

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude	Latitude
-3.299722222	52.02333333

2.2 Area [ha]:

2147.64

2.3 Marine area [%]

0.0

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKL2	East Wales
UKG1	Herefordshire, Worcestershire and Warwickshire
UKK1	Gloucestershire, Wiltshire and Bristol/Bath area
UKL1	West Wales and The Valleys

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

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3.1 Habitat types present on the site and assessment for them

Annex I Habitat types						Site assessment			
Code	PF	NP	Cover [ha]	Cave [number]	Data quality	A|B|C|D	A|B|C		
						Representativity	Relative Surface	Conservation	Global
1130			92.35		G	D			
1140			64.43		M	D			
1330			17.18		G	D			
3260			113.82		G	A	B	B	A
4030						D			
7140			2.15		G	C	C	A	C
8310						D			

9180	X		60.13		G	D			
91A0			15.03		G	D			
91D0	X		8.59		G	D			
91E0	X		131.01		G	D			

- **PF:** for the habitat types that can have a non-priority as well as a priority form (6210, 7130, 9430) enter "X" in the column PF to indicate the priority form.
- **NP:** in case that a habitat type no longer exists in the site enter: x (optional)
- **Cover:** decimal values can be entered
- **Caves:** for habitat types 8310, 8330 (caves) enter the number of caves if estimated surface is not available.
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation)

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	
F	1102	Alosa alosa			p				P	DD	C	C	C	C
F	1103	Alosa fallax			p				P	DD	A	B	C	A
I	1092	Austropotamobius pallipes			p				P	DD	C	C	C	B
F	1163	Cottus gobio			p				P	DD	B	B	C	B
F	1099	Lampetra fluviatilis			p				P	DD	C	A	C	B
F	1096	Lampetra planeri			p				P	DD	C	B	C	B
M	1355	Lutra lutra			p				P	DD	C	A	C	B
I	1029	Margaritifera margaritifera			p				P	DD	D			
F	1095	Petromyzon marinus			p				P	DD	C	A	C	B
M	1304	Rhinolophus ferrumequinum			p				P	DD	D			
M	1303	Rhinolophus hipposideros			p				P	DD	D			
F	1106	Salmo salar			p	1001	10000	i		M	C	C	C	B

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)

- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N06	52.5
N09	5.3
N16	12.3
N23	1.8
N07	3.1
N14	10.4
N08	1.0
N03	1.5
N10	2.4
N02	9.5
N22	0.2
Total Habitat Cover	100

Other Site Characteristics

1 Terrestrial: Soil &
Geology: neutral,sedimentary,basic,nutrient-rich,mud,acidic,peat,alluvium,shingle,clay,sand,sandstone,limestone
Terrestrial: Geomorphology and
landscape: floodplain,crags/ledges,island,coastal,upland,lowland,valley,caves 3 Marine: Geology: mud 4
Marine: Geomorphology: estuary

4.2 Quality and importance

Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation for which this is considered to be one of the best areas in the United Kingdom. Transition mires and quaking bogs for which the area is considered to support a significant presence. Petromyzon marinus for which this is considered to be one of the best areas in the United Kingdom. Lampetra fluviatilis for which this is considered to be one of the best areas in the United Kingdom. Lampetra planeri for which this is considered to be one of the best areas in the United Kingdom. Alosa alosa for which the area is considered to support a significant presence. Alosa fallax for which this is considered to be one of the best areas in the United Kingdom. Salmo salar for which this is considered to be one of the best areas in the United Kingdom. Cottus gobio for which this is considered to be one of the best areas in the United Kingdom. Lutra lutra for which this is considered to be one of the best areas in the United Kingdom. Austropotamobius pallipes for which this is considered to be one of the best areas in the United Kingdom.

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]
M	J03		i

H	H02		B
H	J02		B
M	J03		I
H	I01		B
H	B02		I

H	A02		I

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,
T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.5 Documentation

Conservation Objectives - the Natural England links below provide access to the Conservation Objectives (and other site-related information) for its terrestrial and inshore Natura 2000 sites, including conservation advice packages and supporting documents for European Marine Sites within English waters and for cross-border sites. The Natural Resources Wales weblink below provides access to information on its designated sites. Detailed information about this Natura 2000 site can be accessed via the Management Plan link provided in Section 6.2. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): http://publications.naturalengland.org.uk/category/3212324
http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

https://naturalresources.wales/conservation-biodiversity-and-wildlife/find-protected-areas-of-land-and-seas/designated-s

http://publications.naturalengland.org.uk/category/6490068894089216

5. SITE PROTECTION STATUS (optional)

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5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK00	0.7	UK04	99.3		

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	Natural Resources Wales
Address:	
Email:	

Organisation:	Natural England
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

[X] Yes Name: RIVER WYE / AFON GWY
Link:
https://www.naturalresources.wales/media/673364/River%20Wye%20SAC%20Core%20Management%20Plan%20appr

[ ]

☐ No, but in preparation

☐ No

6.3 Conservation measures (optional)

For available information, including on Conservation Objectives, see Section 4.5.

EXPLANATION OF CODES USED IN THE NATURA 2000 STANDARD DATA FORMS

The codes in the table below are also explained in the official European Union guidelines for the Standard Data Form. The relevant page is shown in the table below.

1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	Designated Special Protection Area	53
B	SAC (includes candidates Special Areas of Conservation, Sites of Community Importance and designated SAC)	53
C	SAC area the same as SPA. Note in the UK Natura 2000 submission this is only used for Gibraltar	53

3.1 Habitat representativity

CODE	DESCRIPTION	PAGE NO
A	Excellent	57
B	Good	57
C	Significant	57
D	Non-significant presence	57

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippopha□ rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	15%-100%	58
B	2%-15%	58
C	< 2%	58

3.1 Conservation status habitat

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

3.1 Global grade habitat

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	15%-100%	62
B	2%-15%	62
C	< 2%	62
D	Non-significant population	62

3.2 Conservation status species (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' Or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Assemblages types

CODE	DESCRIPTION	PAGE NO
WATR	Non breeding waterfowl assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code
BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic ressources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK02	Marine Nature Reserve	67
UK04	Site of Special Scientific Interest (UK)	67

APPENDIX 5

River Wye SAC Entry in the Register of European Sites for Wales

Conservation (Natural Habitats, &c.) Regulations 1994 (SI 1994 No. 2716),
fel y'u diwygiwyd / as amended.

COFNOD YN Y GOFRESTR O SAFLEOEDD EWROPEAIDD I GYMRU

ENTRY IN THE REGISTER OF EUROPEAN SITES FOR WALES

(Rheoliad / Regulation 11.2)

***ENW'R SAFLE*:**
***SITE NAME*:** River Wye / Afon Gwy

***MATH O SAFLE*:** Ardal Cadwraeth Arbennig (ACA)
***SITE TYPE*:** Special Area of Conservation (SAC)

***CÔD Y SAFLE*:**
***SITE CODE*:** UK0012642

HANES DYNODIAD:

***Dyddiad y trosglwyddwyd i'r Comisiwn Ewropeaidd (Rheoliad 7.4)*:**
Hydref 2003

***Dyddiad y mabwysiadwyd fel safle o bwysigrwydd cymunedol (Council Directive 92/42/EEC, Erthygl 4.2)*:**
7 Rhagfyr 2004

***Dyddiad dynodi*:**
13 Rhagfyr 2004

***Dynodwyd gan (Rheoliad 8.1)*:**
Cynulliad Cenedlaethol Cymru

LLEOLIAD:

Awdurdod unedol:
Sir Fynwy, Gloucestershire, Hereford and Worcester, Powys

Cyfesurynnau:
Hydred 03 17 59 Gor, Lledred 52 01 24 Gog
Cyfeirnod Grid Cenedlaethol Arolwg Ordnans: SO109369

Gweler hefyd y map(iau) amgaeëdig, nad ydynt yn ffurfio rhan o'r cofnod hwn.

DESIGNATION HISTORY:

***Date transmitted to the European Commission (Regulation 7.4)*:**
October 2003

Date adopted as a site of community importance (Council Directive 92/42/EEC, Article 4.2):
7 December 2004

***Date designated*:**
13 December 2004

Designated by (Regulation 8.1):
National Assembly for Wales

LOCATION:

Unitary authority:
Monmouthshire, Gloucestershire, Hereford and Worcester, Powys

***Coordinates*:**
Longitude 03 17 59 W, Latitude 52 01 24 N
Ordnance Survey National Grid Reference: SO109369

See also the accompanying map(s), which do not form part of this entry.

MATHAU O GYNEFIN A/NEU RYWOGAETHAU Y DYNODIR Y SAFLE O'U PLEGID:
HABITAT TYPES AND/OR SPECIES FOR WHICH THE SITE IS DESIGNATED:

	*	**Enw cyffredin**	**Common name**	**Term Gwyddonol**	**Scientific term**
1		Herlyn	Allis shad	*Alosa alosa*	
2		Gwangen	Twaite shad	*Alosa fallax*	
3		Cimwch yr afon	White-clawed (or Atlantic stream) crayfish	*Austropotamibius pallipes*	
4		Penlletwad	Bullhead	*Cottus gobio*	
5		Lamprai neu lysywen bendoll yr afon	River lamprey	*Lampetra fluviatilis*	
6		Lamprai'r nant	Brook lamprey	*Lampetra planeri*	
7		Dyfrgi	Otter	*Lutra lutra*	
8		Lamprai neu lysywen bendoll y môr	Sea lamprey	*Petromyzon marinus*	
9		Eog yr Iwerydd	Atlantic salmon	*Salmo salar*	
10		Corsydd gwlyb iawn a adwaenir yn aml oddi wrth eu harwyned ansad 'crynedig'	Very wet mires often identified by an unstable 'quaking' surface	Corsydd trosiannol a siglennydd crynedig	Transition mires and quaking bogs
11		Afonydd gyda llystyfiant nofiadwy - hynny'n aml yn grafanc y dŵr yn bennaf	Rivers with floating vegetation often dominated by water-crowfoot	Cyrsiau dŵr o 'r iseldir hyd at safleoedd mynyddig gyda llystyfiant *Ranunculion fluitantis* a *Callitricho-Batrachion*	Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation

*Mae'n dynodi mathau o gynefin neu rywogaeth y rhoddir blaenoriaeth iddynt (a ddiffinnir yn Erthyglau 1(d) ac 1(h) o Council Directive 92/43/EEC).

*Denotes a priority habitat type or species (defined in Articles 1(d) and 1(h) of Council Directive 92/43/EEC).

***GWNAED Y COFNOD HWN*:**
14 Mehefin 2005

***THIS ENTRY MADE*:**
14 June 2005

***GAN*:**
Trish Fretten, ar ran Gweinidog dros yr Amgylchedd, Cynllunio a Chefn Gwlad, Cynulliad Cenedlaethol Cymru

***BY*:**
Trish Fretten, on behalf of the Minister for Environment, Planning and Countryside, National Assembly for Wales

***LLOFNOD*:**

***SIGNATURE*:**

***DYDDIAD(AU) COFNODION BLAENOROL AR GYFER Y SAFLE HWN*:**
Dim

***DATE(S) OF PREVIOUS ENTRIES FOR THIS SITE*:**
None

COFNODWYD Y SAFLE HWN HEFYD YN Y GOFRESTR O SAFLEOEDD EWROPEAIDD AR GYFER LLOEGR

THIS SITE HAS ALSO BEEN ENTERED IN THE REGISTER OF EUROPEAN SITES FOR ENGLAND

***GAN*:**
Trevor Salmon, ar ran yr Ysgrifennydd Gwladol dros yr Amgylchedd, Bwyd a Materion Gwledig

***BY*:**
Trevor Salmon, on behalf of the Secretary of State for the Environment, Food and Rural Affairs

***DYDDIAD*:** 14 Mehefin 2005

***DATE*:** 14 June 2005

LLOFNOD:

***SIGNATURE*:**

APPENDIX 6

Newton Court Stable Block SSSI Citation

CYNGOR CEFN GWLAD CYMRU
COUNTRYSIDE COUNCIL FOR WALES

SITE OF SPECIAL SCIENTIFIC INTEREST CITATION

MONMOUTHSHIRE **NEWTON COURT STABLE BLOCK**

Date of Notification: 1998

National Grid Reference: SO 522143

O.S. Maps: 1:50,000 Sheet Number: 162
1:10,000 Sheet Number: SO 51

Site Area: 0.23 ha

Description:

The Newton Court Stable Block site which is of special interest for its breeding colony of the greater horseshoe bat *Rhinolophus ferrumequinum* is located on a south-east facing bluff above the town of Monmouth, overlooking the River Wye and immediately adjacent to the Wye Valley Area of Outstanding Natural Beauty.

The site comprises a stable block, courtyard and an area of adjacent woodland. The roof space of the stable block is an important breeding site for the rare and endangered greater horseshoe bat. For the period 1991/1996 the roost regularly supported between 50 and 100 adults and flighted juveniles. The site includes the emergence cover provided by a line of trees alongside an adjacent court, and a small area of woodland.

Newton Court Stable Block is the only breeding roost for this species in Monmouthshire and one of only three known in Wales.

The greater horseshoe bat has declined substantially in numbers and range in Britain and Europe this century and has now disappeared from much of its former range in southern Britain. In view of the recent decline of the species in western Europe, it has been given special protection by the Habitats and Species Directive.

The site is also used by a small number of lesser horseshoe bats *Rhinolophus hipposideros*.

Remarks:

Greater horseshoe and lesser horseshoe bats are listed in Annex II of the Habitats and Species Directive and on Schedule 5 of the Wildlife and Countryside Act 1981

APPENDIX 7

Wye Valley and Forest of Dean Bat Sites SAC
Natura 2000 Standard Data Form

NATURA 2000 – STANDARD DATA FORM

Special Areas of Conservation under the EC Habitats Directive (includes candidate SACs, Sites of Community Importance and designated SACs).

Each Natura 2000 site in the United Kingdom has its own Standard Data Form containing site-specific information. The data form for this site has been generated from the Natura 2000 Database submitted to the European Commission on the following date:

22/12/2015

The information provided here, follows the officially agreed site information format for Natura 2000 sites, as set out in the Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 (2011/484/EU).

The Standard Data Forms are generated automatically for all of the UK's Natura 2000 sites using the European Environment Agency's Natura 2000 software. The structure and format of these forms is exactly as produced by the EEA's Natura 2000 software (except for the addition of this coversheet and the end notes). The content matches exactly the data submitted to the European Commission.

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

Further technical documentation may be found here
http://bd.eionet.europa.eu/activities/Natura_2000/reference_portal

As part of the December 2015 submission, several sections of the UK's previously published Standard Data Forms have been updated. For details of the approach taken by the UK in this submission please refer to the following document:
http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

More general information on Special Areas of Conservation (SACs) in the United Kingdom is available from the SAC home page on the JNCC website. This webpage also provides links to Standard Data Forms for all SACs in the UK.

Date form generated by the Joint Nature Conservation Committee
25 January 2016.

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE	**UK0014794**
SITENAME	**Wye Valley and Forest of Dean Bat Sites/ Safleoedd Ystlumod Dyffryn Gwy a Fforest y Ddena**

TABLE OF CONTENTS

1. SITE IDENTIFICATION

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1.1 Type	1.2 Site code
B	UK0014794

1.3 Site name

Wye Valley and Forest of Dean Bat Sites/ Safleoedd Ystlumod Dyffryn Gwy a Fforest y Ddena

1.4 First Compilation date	1.5 Update date
1996-01	2015-12

1.6 Respondent:

Name/Organisation: Joint Nature Conservation Committee

Address: Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY

Email:

Date site proposed as SCI:	1996-01
Date site confirmed as SCI:	2004-12
Date site designated as SAC:	2005-04
National legal reference of SAC designation:	Regulations 11 and 13-15 of the Conservation of Habitats and Species Regulations 2010 (http://www.legislation.gov.uk/uksi/2010/490/contents/made).

2. SITE LOCATION

2.1 Site-centre location [decimal degrees]:

Back to top

Longitude	Latitude
-2.5725	51.7375

2.2 Area [ha]:

144.82

2.3 Marine area [%]

0.0

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKL1	West Wales and The Valleys
UKK1	Gloucestershire, Wiltshire and Bristol/Bath area

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

Back to top

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo
M	1323	Myotis bechsteini			p	1	5	i		M	D			
M	1304	Rhinolophus ferrumequinum			p	251	500	i		M	B	A	B	B
M	1303	Rhinolophus hipposideros			p	1001	10000	i		M	A	A	C	A

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with

some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N16	26.2
N23	73.8
Total Habitat Cover	100

Other Site Characteristics

1 Terrestrial: Soil & Geology: limestone 2 Terrestrial: Geomorphology and landscape: lowland,valley,hilly

4.2 Quality and importance

Rhinolophus ferrumequinum for which this is considered to be one of the best areas in the United Kingdom. Rhinolophus hipposideros for which this is considered to be one of the best areas in the United Kingdom.

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	J03		B
H	G01		I
H	J02		B

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	E04		I
H	D05		I
H	A02		I

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,
T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.5 Documentation

Conservation Objectives - the Natural England links below provide access to the Conservation Objectives (and other site-related information) for its terrestrial and inshore Natura 2000 sites, including conservation advice packages and supporting documents for European Marine Sites within English waters and for cross-border sites. The Natural Resources Wales weblink below provides access to information on its designated sites. Detailed information about this Natura 2000 site can be accessed via the Management Plan link provided in Section 6.2. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): http://publications.naturalengland.org.uk/category/3212324
http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

http://publications.naturalengland.org.uk/category/6490068894089216

https://naturalresources.wales/conservation-biodiversity-and-wildlife/find-protected-areas-of-land-and-seas/designated-s

5. SITE PROTECTION STATUS (optional)

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5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK04	100.0				

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	Natural Resources Wales
Address:	
Email:	

Organisation:	Natural England
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

[X] Yes Name: WYE VALLEY AND FOREST OF DEAN BAT SITES / SAFLEOEDD YSTLUMOD DYFFRYN FFOREST Y DDENA
Link:
https://www.naturalresources.wales/media/674312/Wye%20Valley%20Bats%20Core%20Plan%20TRK%2031%20Oct%

[ ] No, but in preparation

[ ] No

6.3 Conservation measures (optional)

For available information, including on Conservation Objectives, see Section 4.5.

EXPLANATION OF CODES USED IN THE NATURA 2000 STANDARD DATA FORMS

The codes in the table below are also explained in the official European Union guidelines for the Standard Data Form. The relevant page is shown in the table below.

1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	Designated Special Protection Area	53
B	SAC (includes candidates Special Areas of Conservation, Sites of Community Importance and designated SAC)	53
C	SAC area the same as SPA. Note in the UK Natura 2000 submission this is only used for Gibraltar	53

3.1 Habitat representativity

CODE	DESCRIPTION	PAGE NO
A	Excellent	57
B	Good	57
C	Significant	57
D	Non-significant presence	57

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippopha□ rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	15%-100%	58
B	2%-15%	58
C	< 2%	58

3.1 Conservation status habitat

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

3.1 Global grade habitat

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	15%-100%	62
B	2%-15%	62
C	< 2%	62
D	Non-significant population	62

3.2 Conservation status species (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' Or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Assemblages types

CODE	DESCRIPTION	PAGE NO
WATR	Non breeding waterfowl assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code
BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic ressources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK02	Marine Nature Reserve	67
UK04	Site of Special Scientific Interest (UK)	67

APPENDIX 8

Wye Valley and Forest of Dean Bat Sites SAC Entry
in the Register of European Sites for Wales

Conservation (Natural Habitats, &c.) Regulations 1994 (SI 1994 No. 2716),
fel y'u diwygiwyd / as amended.

COFNOD YN Y GOFRESTR O SAFLEOEDD EWROPEAIDD I GYMRU

ENTRY IN THE REGISTER OF EUROPEAN SITES FOR WALES

(Rheoliad / Regulation 11.2)

***ENW'R SAFLE*:**
***SITE NAME*:** Wye Valley and Forest of Dean Bat Sites / Safleoedd Ystlumod Dyffryn Gwy a Fforest y Ddena

***MATH O SAFLE*:** Ardal Cadwraeth Arbennig (ACA)
***SITE TYPE*:** Special Area of Conservation (SAC)

***CÔD Y SAFLE*:**
***SITE CODE*:** UK0014794

***HANES DYNODIAD*:**

***Dyddiad y trosglwyddwyd i'r Comisiwn Ewropeaidd (Rheoliad 7.4)*:**
Ionawr 2003

***Dyddiad y mabwysiadwyd fel safle o bwysigrwydd cymunedol (Council Directive 92/42/EEC, Erthygl 4.2)*:**
7 Rhagfyr 2004

***Dyddiad dynodi*:**
13 Rhagfyr 2004

***Dynodwyd gan (Rheoliad 8.1)*:**
Cynulliad Cenedlaethol Cymru

***LLEOLIAD*:**

Awdurdod unedol:
Sir Fynwy, Gloucestershire

Cyfesurynnau:
Hydred 02 34 21 Gor, Lledred 51 44 15 Gog
Cyfeirnod Grid Cenedlaethol Arolwg Ordnans: SO605044

Gweler hefyd y map(iau) amgaeëdig, nad ydynt yn ffurfio rhan o'r cofnod hwn.

***DESIGNATION HISTORY*:**

***Date transmitted to the European Commission (Regulation 7.4)*:**
January 2003

Date adopted as a site of community importance (Council Directive 92/42/EEC, Article 4.2):
7 December 2004

***Date designated*:**
13 December 2004

Designated by (Regulation 8.1):
National Assembly for Wales

***LOCATION*:**

Unitary authority:
Monmouthshire, Gloucestershire

***Coordinates*:**
Longitude 02 34 21 W, Latitude 51 44 15 N
Ordnance Survey National Grid Reference: SO605044

See also the accompanying map(s), which do not form part of this entry.

MATHAU O GYNEFIN A/NEU RYWOGAETHAU Y DYNODIR Y SAFLE O'U PLEGID:
HABITAT TYPES AND/OR SPECIES FOR WHICH THE SITE IS DESIGNATED:

	*	Enw cyffredin	Common name	Term Gwyddonol	Scientific term
1		Ystlum trwyn pedol mwyaf	Greater horseshoe bat	*Rhinolophus ferrumequinum*	
2		Ystlum trwyn pedol lleiaf	Lesser horseshoe bat	*Rhinolophus hipposideros*	

*Mae'n dynodi mathau o gynefin neu rywogaeth y rhoddir blaenoriaeth iddynt (a ddiffinnir yn Erthyglau 1(d) ac 1(h) o Council Directive 92/43/EEC).

*Denotes a priority habitat type or species (defined in Articles 1(d) and 1(h) of Council Directive 92/43/EEC).

***GWNAED Y COFNOD HWN*:**
14 Mehefin 2005

***THIS ENTRY MADE*:**
14 June 2005

***GAN*:**
Trish Fretten, ar ran Gweinidog dros yr Amgylchedd, Cynllunio a Chefn Gwlad, Cynulliad Cenedlaethol Cymru

***BY*:**
Trish Fretten, on behalf of the Minister for Environment, Planning and Countryside, National Assembly for Wales

***LLOFNOD*:** ***SIGNATURE*:**

DYDDIAD(AU) COFNODION BLAENOROL AR GYFER Y SAFLE HWN:
Dim

DATE(S) OF PREVIOUS ENTRIES FOR THIS SITE:
None

COFNODWYD Y SAFLE HWN HEFYD YN Y GOFRESTR O SAFLEOEDD EWROPEAIDD AR GYFER LLOEGR

THIS SITE HAS ALSO BEEN ENTERED IN THE REGISTER OF EUROPEAN SITES FOR ENGLAND

GAN:
Trevor Salmon, ar ran yr Ysgrifennydd Gwladol dros yr Amgylchedd, Bwyd a Materion Gwledig

BY:
Trevor Salmon, on behalf of the Secretary of State for the Environment, Food and Rural Affairs

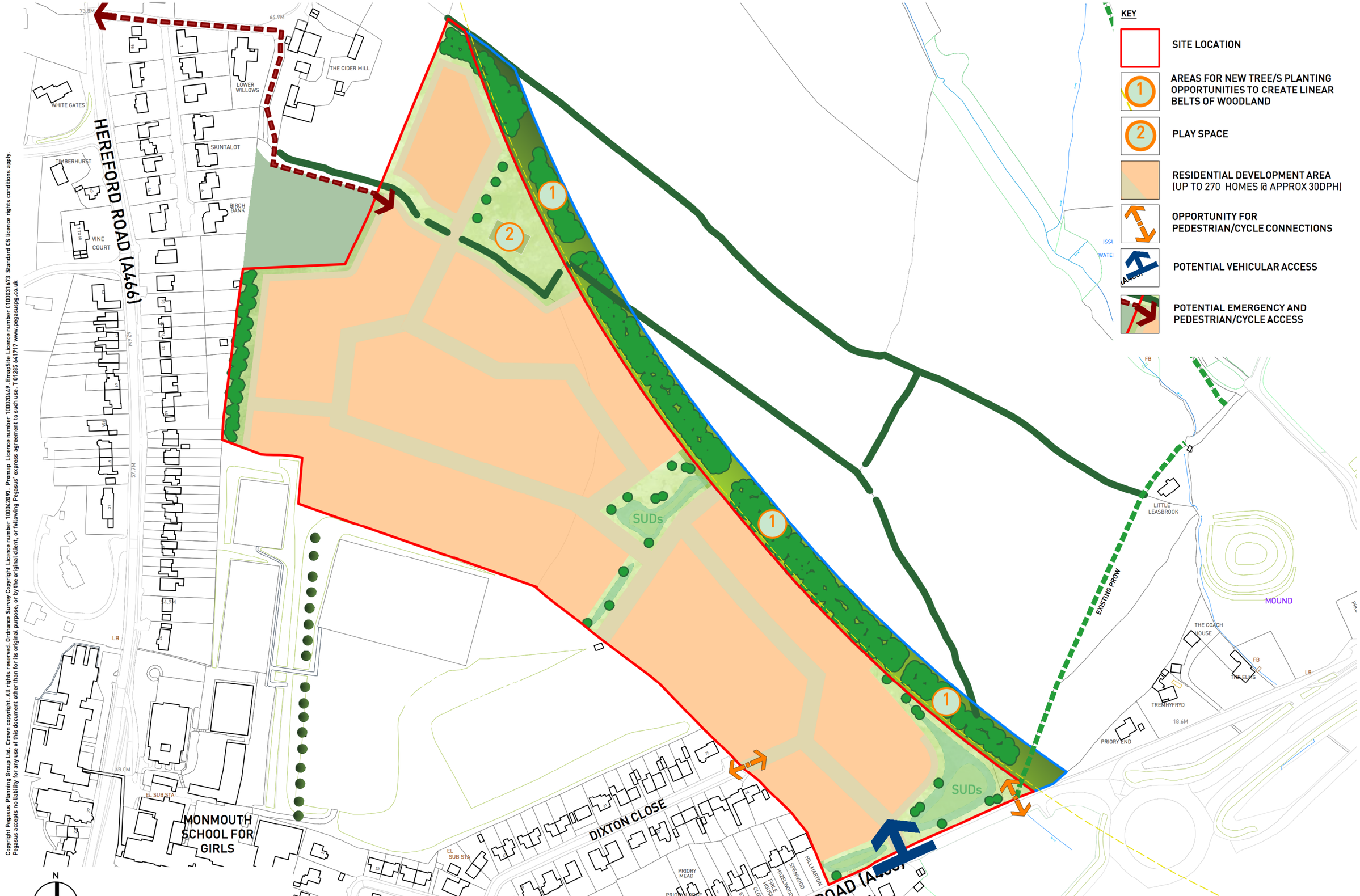
DYDDIAD: 14 Mehefin 2005

DATE: 14 June 2005

LLOFNOD: ***SIGNATURE:***

APPENDIX 9

Land to the East of Monmouth – Strategic Masterplan (Drawing Number P18-0649_01 Rev i) (Pegasus Design)



LEASBROOK, MONMOUTH - **STRATEGIC MASTERPLAN**

Pegasus Design

PLANNING | DESIGN | ENVIRONMENT | ECONOMICS | WWW.PEGASUSGROUP.CO.UK | TEAM/DRAWN BY EJT/CB | APPROVED BY P.M: EJT | DATE: 25/08/21 | SCALE: 1:2500 @A3 | DRWG: **P18-0649**_01 REV: i | CLIENT: **REDROW HOMES** |

ECOLOGYSOLUTIONS

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