

Technical Briefing Note

Project: Hall Place Farm, Reading

BN1: Ecological Opportunities and Constraints

29th November 2018

1 Introduction

- 1.1 Aspect Ecology has been commissioned to undertake initial ecological survey work at the above site and carry out an assessment of the deliverability of the site in relation to the proposed illustrative masterplan, which is intended for promotion for allocation for residential development in the upcoming West Berkshire Local Plan review process. The assessment is based on a desktop study with biological records obtained from Thames Valley Environmental Records Centre (TVERC), a review of freely available desktop data, and a Phase 1 Habitat Survey carried out in June 2018. The site boundary is shown on Plan 5420/BN1.
- 1.2 This note provides an overview of the ecological status of the site based on the desktop study and initial survey work, whilst the key ecological opportunities and constraints are also identified (and shown on Plan 5420/BN3).

2 Initial Overview of the Ecological Status of the Site

- 2.1 Table 2.1 below sets out a summary of the ecological status of the site based on the initial work undertaken.

Table 2.1 Summary of Ecological Status of the Site

Ecological Designations	
Notes	<p>Ecological designations in proximity to the site are shown on Plan 5420/BN2.</p> <p><i>European designations:</i> A 15km radius from the site has been searched for the presence of European designations. No European designations are present within the site. The closest European designation within a 15km radius is Hartslock Wood SAC, located 5.4km north-west of the site. Hartslock Wood is designated for its Annex I habitats ‘Semi-natural dry grasslands and scrubland facies on calcareous substrates’ and ‘Taxus baccata woods of the British Isles’ and hosts the priority habitat type ‘orchid rich sites’. The site supports one of only three UK populations of Monkey Orchid <i>Orchis simia</i>, a nationally rare Red Data Book Species. The only other European designation within a 15km radius of the site is Thames Basin Heaths Special Protection Area located 13.8km south-east of the site and well separated by existing development.</p> <p><i>Other statutory designations:</i> There are no statutory ecological designations within the site. The nearest statutory designations are Blundells Copse Local Nature Reserve (LNR) located 1.4km south-east of the site and Sulham and Tidmarsh Woods and Meadows Site of Special</p>

	<p>Scientific Interest (SSSI) located 1.4km west of the site. Blundells Copse is an ancient woodland site with a stream, large Alder <i>Alnus glutinosa</i> trees and a variety of other species. The designation may be sensitive to increases in recreational pressure. Sulham and Tidmarsh Woods and Meadow SSSI is designated for its varied alluvial loams, gravel terraces and peat deposits and the damp copses and seasonally flooded meadow communities supported by these features. The site also supports a rich invertebrate fauna. The site sits within the SSSI Impact Risk Zone for which rural residential development is listed as a risk factor, specifically, any residential development of 100 or more houses outside existing settlements/urban areas.</p> <p>Also lying within 2km of the site is Pincents Kiln SSSI (1.8km south), Round Copse LNR (1.8km north-east) and Lousehill Copse (1.9km east).</p> <p><i>Non-statutory designations:</i> There are no non-statutory designated sites located within the site itself. However, Clay Copse and Cornwall Copse Local Wildlife Site (LWS) is recorded adjacent to the northern site boundary. This area is designated as partly semi-natural ancient woodland with some replanted areas and wet flushes. There are a number of native coppiced trees and an abundance of Bluebell <i>Hycinthoides non-scripta</i>, Yellow Archangel <i>Lamium galeobdolon</i>, Dog's-mercury <i>Mercurialis perennis</i> and Woodruff <i>Galium odoratum</i>. The next nearest designation is Pink's Grove and Beale's Copse LWS located 0.2km south-east of the site. A small portion of the site to the north also falls within a Biodiversity Opportunity Area (BOA)/Conservation Target Area, these are areas identified as supporting high concentrations of UK Priority Species and Habitats where there is potential to restore habitats at a landscape scale.</p> <p>Ancient woodland listed in the ancient woodland inventory is located adjacent to the northern and north-eastern site boundary, this is discussed further in the habitats section below.</p> <p>Summary. No statutory or non-statutory ecological designations are present within the site. Indeed, with the exception of the LWS adjacent to the northern site boundary, which will be buffered from the built development; designated areas are generally located some distance away. As such ecological designations are unlikely to be a significant constraint to development of the site, whilst the sites location within a BOA presents the opportunity to contribute towards landscape scale habitat restoration, with green corridors provided under the proposed site layout. Further assessment will be carried out to identify any nearby designations that may be vulnerable to increases in recreational pressure should residential development of the site be brought forward.</p>
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Habitats	
Notes	<p>Habitats within the site are generally of low ecological value, being dominated by buildings and hardstanding to the east and short grazed horse paddocks within the remainder of the site. A small number of hedgerows, occasional trees, areas of long-sward grassland, scrub, amenity garden areas and a single pond are also present within the site boundary. The hedgerows and scattered trees are considered to be of moderate ecological value whilst the remaining habitats are of low ecological value and are generally common and widespread in nature. The sites northern boundary is formed of woodland habitat, which comprises ancient woodland, this habitat is considered to be of high ecological value.</p> <p>The short-sward grassland that dominates the site is actively grazed by horses and comprises a range of common and widespread grass and herb species. Occasional small areas of long-sward grassland have developed at peripheral areas not subject to horse grazing. The hardstanding and buildings within the eastern section of the site are associated with an equestrian centre with a single semi-detached residential property and are in active use, they support few species with encroaching weed species at the edges only.</p>

	<p>Eight hedgerows are present within the site, comprised of a mixture of amenity and native species dominated hedgerows. Amenity hedgerows are largely associated with the equestrian centre and residential building, dominated by Leylandii and Privet whilst native species dominated hedgerows are associated with the grassland fields and are dominated by Hawthorn <i>Crataegus monogyna</i>, Elder <i>Sambucus nigra</i> and Bramble <i>Rubus fruticosus</i> with a number of standard trees present. In addition to standard trees recorded within hedgerows a mature Oak <i>Quercus robur</i> tree was recorded within an area of scrub at the south-eastern boundary.</p> <p>Woodland forming the northern site boundary is listed as ancient semi-natural woodland and ancient replanted woodland. The Phase 1 habitat survey recorded the woodland to be of high ecological value with an open canopy dominated by Sweet Chestnut <i>Castanea sativa</i> and Ash <i>Fraxinus excelsior</i>. A good understorey layer is present with Holly <i>Ilex aquifolium</i>, Sweet Chestnut and Hazel <i>Corylus avellana</i> frequently recorded. The ground flora layer was recorded to support a number of ancient woodland indicator species including Bluebell <i>Hyacinthoides non-scripta</i>, Common Honeysuckle <i>Lonicera periclymenum</i>, Pendulous sedge <i>Carex pendula</i>, Dog's Mercury <i>Mercurialis perennis</i> and Herb-robert <i>Geranium robertianum</i>.</p> <p>Summary. The Phase 1 Habitat survey identified the site to be dominated by habitats of generally low ecological value. Habitats of greater relative value in the context of the site include hedgerows, trees and ancient woodland (adjacent to site boundary). Habitats of greater value are proposed for retention and protection under the proposed illustrative site layout and will be subject to suitable mitigation and safeguarding measures.</p>
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Fauna	
Notes	<p>The habitats within the site have the potential to support a number of notable/protected species. The desktop study identified a number of records of protected species from within the wider vicinity of the site although no specific records were returned from directly within or adjacent to the site.</p> <p>Bats. A number of bat records were returned from the desktop study from within the vicinity of the site, the closest record was for Pipistrelle <i>Pipistrellus</i> sp. approximately 0.2km west of the site, dated 1997.</p> <p>21 buildings are present within the site, eight of which are considered to offer low bat roosting potential, one of which supports moderate bat roosting potential and three of which support high bat roosting potential. Four trees with bat roosting potential were identified either within or immediately adjacent to the site. Horse-grazed fields, boundary hedgerows and woodland forming the wider site likely also offer foraging and commuting potential for bats.</p> <p>Emergence / re-entry survey work will be carried out for bats upon any buildings or trees to be affected by the proposals to determine whether bat roosts are present. Licensing and appropriate mitigation will be implemented where required to ensure that roosting bats will be protected. A number of existing buildings with bat roosting potential are to be refurbished to provide farm shop/workshop units, which presents the opportunity to create new roosting features for bats.</p> <p>Amphibians. The desktop study returned records for a number of amphibian species within the vicinity of the site, the closest of which was for Great Crested Newt <i>Triturus cristatus</i> approximately 0.9km north-west of the site dated 2006. A historical, broad scale 1km grid square record for Great Crested Newt was also returned 0.2km west of the site dated 1964.</p> <p>A single waterbody (pond P1) is present within the site and appears to be manmade and</p>

	<p>likely used as part of horse cross-country course, it was additionally noted that no emergent or aquatic vegetation is present such that it is considered unlikely to be used by Great Crested Newts. An additional pond (P2) was also recorded within the adjacent woodland in close proximity to the site boundary and was recorded to hold little water at the time of survey.</p> <p>The site supports few terrestrial opportunities for amphibians being dominated by buildings, hardstanding and short-sward grassland with habitats of potentially greater value being limited to small areas of scrub and long-sward grassland only in addition to boundary hedgerows and woodland.</p> <p>Given the lack of recent records of Great Crested Newts from within 500m of the site boundary and the lack of suitability of the on-site pond it is considered unlikely Great Crested Newts make use of the site. Other amphibian species may make some limited use of the site, although no nearby records of such species were returned from the desktop study. As such, it is not considered necessary to carry out specific survey work for this species group, whilst new opportunities, such as the creation of new ponds are proposed under the illustrative masterplan which will provide additional benefits for amphibians.</p> <p>Reptiles. The desktop study did not return any records of reptiles from within or adjacent to the site. A number of records of Slow-worm <i>Anguis fragilis</i> and Grass Snake <i>Natrix natrix</i> were returned from within the 2km radius surrounding the site, the closest of which was for Slow-worm located 0.4km east of the site, dated 2012.</p> <p>Areas of suitable reptile habitat are limited within the site to small areas of long-sward grassland, woodland, scrub and hedgerow edges. The majority of the site comprising short-sward grassland, buildings and hardstanding offers little potential for reptiles such that it is considered relatively unlikely that the site would support significant populations of reptiles.</p> <p>Specific survey work for this species group is not considered necessary whilst a range of new habitat opportunities for reptiles are possible under the proposed illustrative layout including areas of wildflower grassland and ponds.</p> <p>Badgers. A number of records of Badger were returned from within the vicinity of the site, including a number of broad scale 1km grid reference records which cover the site. The closest specific Badger record returned is approximately 0.7km north-west of the site, within the adjacent woodland, dated 2008.</p> <p>During the Phase 1 survey no setts or signs of Badger were recorded (albeit an exhaustive search of the off-site woodland was not carried out. Habitats suitable for Badger foraging and sett building are present within the site including scrub and woodland edge.</p> <p>Based on an initial assessment it is considered unlikely Badgers would make significant use of the site although the adjacent woodland is considered likely to support the species. Under the proposed illustrative layout, existing habitats likely to be of highest value to Badger such as hedgerows and woodland edge are retained whilst new green corridors and habitats which will be beneficial to the species and will retain connectivity throughout the site are proposed.</p> <p>Dormouse. The desktop study returned a small number of Dormouse <i>Muscardinus avellanarius</i> records from 1.2km west of the site from 2015 and 2016.</p> <p>Habitats in the form of hedgerows within the site and woodland bounding the site offer some potential for Dormouse and are generally well connected to further areas of woodland in the local area. Woodland bounding the site supports a good understorey layer comprising a number of species including Holly and Hazel.</p>
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	<p>Based on an initial assessment, it is possible that Dormouse could make use of habitats within and bounding the site. Populations are most likely to be associated with the adjacent woodland and connected Sulham Woods.</p> <p>With the exception of small gaps for access, the hedgerows within the site and the woodland bounding the site, which could offer potential Dormouse habitat will be retained and protected under the proposals such that no further survey work is considered necessary.</p> <p>Other Mammals. A small number of other mammal records were returned from within the vicinity of the site including Hedgehog <i>Erinaceus europaeus</i>, Brown Hare <i>Lepus europaeus</i> and Water Vole <i>Arvicola amphibius</i>.</p> <p>The site itself contains some suitable habitat for Hedgehog in the form of grassland, scrub and woodland. A range of other more common mammals such as Fox <i>Vulpes vulpes</i> and Rabbit <i>Oryctolagus cuniculus</i> likely also make use of the site whilst a Muntjac <i>Muntiacus reevesi</i> deer was also recorded during survey work undertaken.</p> <p>Based on an initial assessment, the site is unlikely to support significant populations of other protected mammal species whilst no suitable habitat is present for Water Vole. The proposed illustrative masterplan maintains connectivity of habitats throughout the site and offers a range of new habitats for use by mammals going forward.</p> <p>Birds. The desktop study did not return any specific records of bird species form within the site. A number of records were returned from the surrounding areas including Red Listed Birds of Conservation Concern (BoCC) Song Thrush <i>Turdus philomelos</i>, Redwing <i>Turdus iliacus</i>, Linnet <i>Carduelis cannabina</i>, Cuckoo <i>Cuculus canorus</i>, Skylark <i>Alauda arvensis</i> and Grey Partridge <i>Perdix perdix</i> and the Amber Listed BoCC Dunnock <i>Prunella modularis</i>, Swift <i>Apus apus</i>, Redstart <i>Phoenicurus phoenicurus</i> and Reed Bunting <i>Emberiza schoeniclus</i>. Song Thrush, Linnet, Cuckoo, Grey Partridge and Reed Bunting are also listed as UK Priority Species.</p> <p>Suitable habitats are present for breeding birds within the site including buildings, woodland, scrub and hedgerows. Swallows <i>Hirundo rustica</i> and the Red Listed BoCC, UK Priority Species House Sparrows <i>Passer domesticus</i> were recorded nesting within a number of the stable buildings. Additionally Feral Pigeon <i>Columba livia</i>, Wood Pigeon <i>Columba palumbus</i>, Blackbird <i>Turdus merula</i>, the Schedule 1 species Red Kite <i>Milvus milvus</i>, Buzzard <i>Buteo buteo</i>, Pied Wagtail <i>Motacilla alba</i>, Magpie <i>Pica pica</i>, Robin <i>Erithacus rubecula</i> and the BoCC Red listed, UK Priority Species Starling <i>Sturnus vulgaris</i> were recorded to be present within the site.</p> <p>Given the sites small size and further suitable habitats in the surrounding area it is considered unlikely that the site would support a significant assemblage of breeding birds. Further, under the proposed illustrative masterplan habitats likely of highest value to birds are largely retained. Additionally, a range of new nesting and foraging opportunities are provided and the opportunity to incorporate new nest boxes / roosting units into the built development or upon retained trees is present.</p> <p>Invertebrates. The desktop study returned a number of records of invertebrates within the vicinity of the site, the closest of which returned included the UK Priority Species Small Emerald <i>Hemistola chrysoprasaria</i>, Dot Moth <i>Melanchra persicariae</i> and Stag Beetle <i>Lucanus cervus</i>, located approximately 0.3km south-east of the site.</p> <p>The site supports limited potential for invertebrates with habitats of elevated value including woodland, hedgerows, scrub and long-sward grassland. Meadow Brown <i>Maniola jurtina</i>, Speckled Wood <i>Pararge aegeria</i> and Red-tailed Bumblebee <i>Bombus lapidarius</i> were recorded during the survey work undertaken.</p>
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	Based on an initial assessment, it is considered unlikely that the site would support a notable invertebrate population whilst the habitats proposed under the illustrative masterplan will likely offer a range of benefits and a pollen source to invertebrates going forward.
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3 Ecological Opportunities and Constraints

3.1 Ecological Opportunities and Constraints are set out on Plans 5420/BN3.

Key Opportunities

3.2 The key opportunity which could be delivered through development of the site is to incorporate well designed strategic areas of high quality greenspace to benefit biodiversity and the community, as set out within the illustrative masterplan. Such greenspace has been proposed throughout the site, particularly alongside the ancient woodland to buffer it from built development. The site slopes downwards towards the woodland in its north central portion and as such this is a preferred location for Sustainable Drainage Systems (SuDS) features, such as an attenuation pond. As such a greenspace area has also been proposed for creation here with a number of wetland features to benefit wildlife.

3.3 This greenspace is proposed to be linked though the site to create new ecological corridors across what is currently short grazed grassland, for example with the use of planted swales. Existing habitats can be protected and strengthened (for example with new additional ecotone planting adjacent to the existing woodland) and new habitats can be created which are not currently present within the site (for example new wildlife ponds, wildflower grassland, orchard and bird and bat roosting features).

3.4 Based on an initial assessment, it appears that the site is not being actively managed to specifically benefit biodiversity. As such a further key opportunity of development of the site is to bring the retained and new habitats into active management specifically to benefit biodiversity.

3.5 A summary of the key opportunities for development of the site are given below:

- Improve and strengthen ecological networks with well-designed greenspace and green corridors, which contribute to the aims of the BOA;
- Strengthen and protect existing habitats for example by buffering woodland from built development with greenspace and through planting of an ecotone from woodland to scrub to grassland;
- Creation of new habitat features such as wildflower meadows, ponds and additional native hedgerows to benefit a range of species such as invertebrates, amphibians, reptiles and birds.
- Delivery of specific faunal enhancements into greenspace and new dwellings including Dormouse boxes (in adjacent woodland), bat boxes, bird boxes, hibernacula and brush piles, insect hotels, pollen and nectar plantings for bees, beetle and butterfly banks and Hedgehog cut outs.
- Development of Management Plans to bring the development into active management to maintain its biodiversity interest in the long-term.

Key Constraints

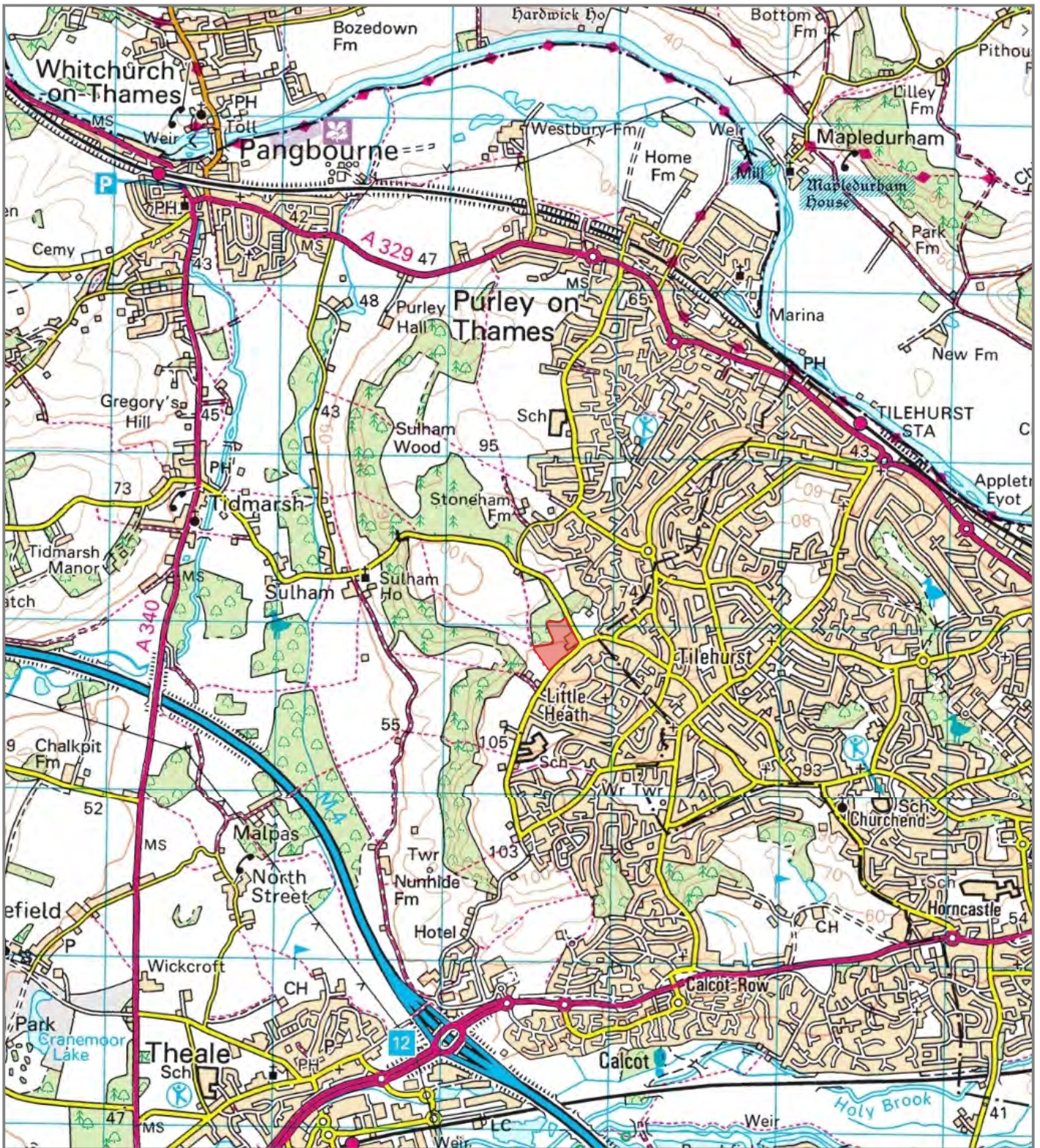
- 3.6 Statutory ecological designations are unlikely to pose a key constraint to the proposals.
- 3.7 The presence of woodland listed as a LWS and ancient woodland on the ancient woodland inventory forming the northern site boundary is a key constraint. As shown on the Illustrative Masterplan, any development of the site will ensure the woodland is retained and safeguarded. As a minimum the woodland will be buffered from built development (including roads and other hard surfaces) by 15m in accordance with Natural England standing advice. Consideration will also be given as more detailed proposals are brought forward to the effects any residential development and additional residents may have on the woodland.
- 3.8 Other habitats within the site are common and widespread and would not pose a significant constraint to development of the site, albeit some habitat losses may require compensation. It is likely any required compensation could be delivered on-site through the delivery of high quality greenspace.
- 3.9 In relation to protected species, as set out above further survey will be undertaken in this regard in order to identify the presence/likely absence of protected species, and where present, their distribution across the site. The effects of the proposals on protected species will be identified and assessed, and proportional mitigation measures will be designed and implemented accordingly. Overall, based on an initial assessment it appears unlikely the site supports significant populations of protected species, and as such it is considered likely that any required mitigation/compensation could be delivered within on-site greenspace.

4 Conclusions and Overall Deliverability of Future Proposals

- 4.1 The site is subject to a number of minor identified/likely ecological constraints, though based on an initial assessment these constraints are considered unlikely to prevent a sensitively designed development. Indeed, development creates the opportunity to incorporate a range of features which capitalise on the identified key ecological opportunities, in particular the strengthening and expansion of hedgerows and woodland and creating a number of new faunal enhancements.
- 4.2 Overall it is considered that the Illustrative Masterplan has been sensitively designed and is deliverable in ecological terms. It is likely (subject to further protected species survey work) that the Masterplan incorporates adequate greenspace such that any required mitigation/compensation can be delivered on-site which also has the potential to deliver a net gain in biodiversity.

Plan 5420/BN1:

Site Location



Key:

Site Location

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Site Location TITLE

5420/BN1 DRAWING NO.

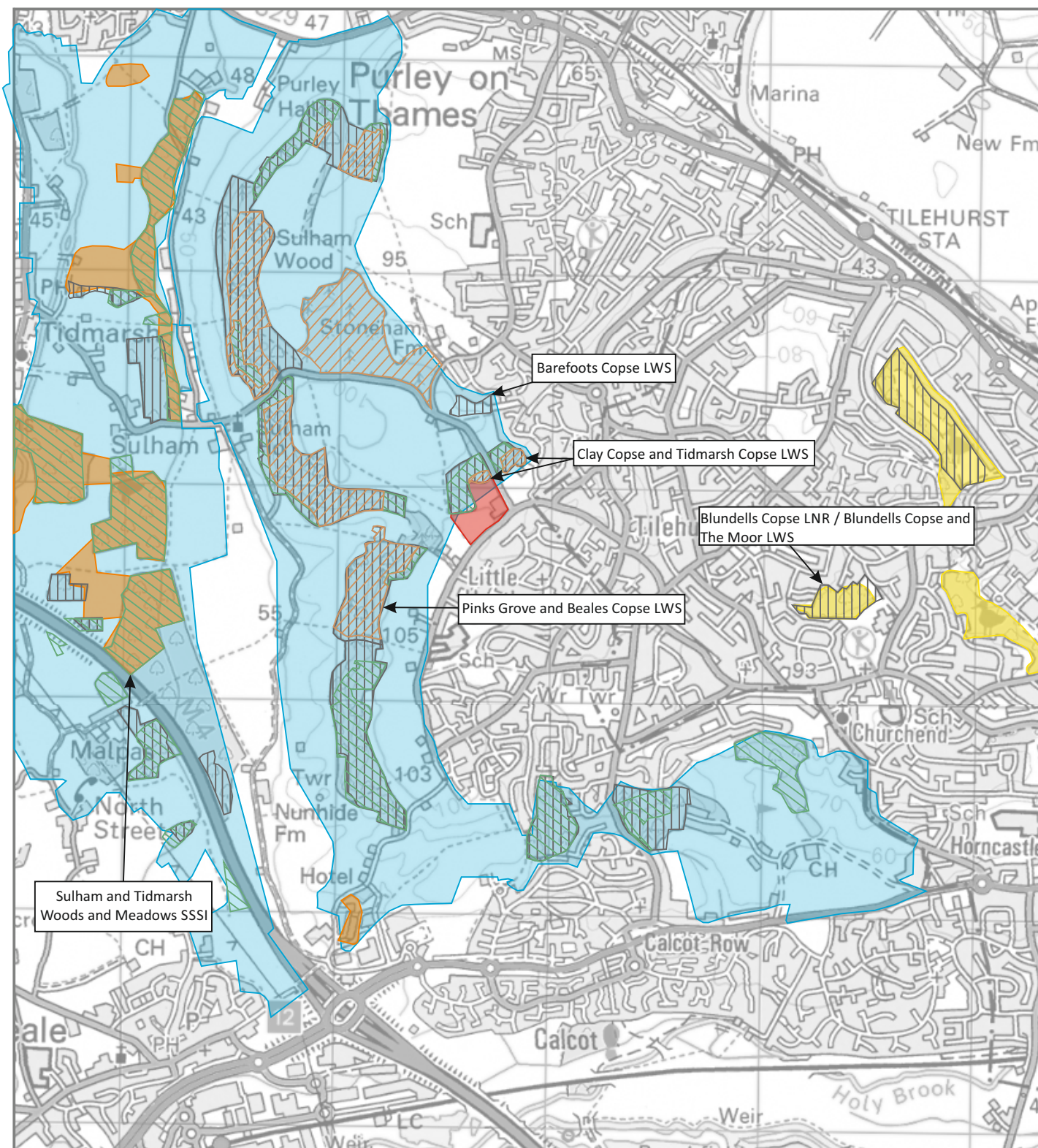
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July 2018 DATE



Plan 5420/BN2:

Ecological Designations



Key:

- Site Location
- Biodiversity Opportunity Area/Conservation Target Area
- Local Wildlife Site (LWS)
- Ancient Woodland (semi-natural)
- Ancient Woodland (replanted)
- Site of Special Scientific Interest (SSSI)
- Local Nature Reserve (LNR)

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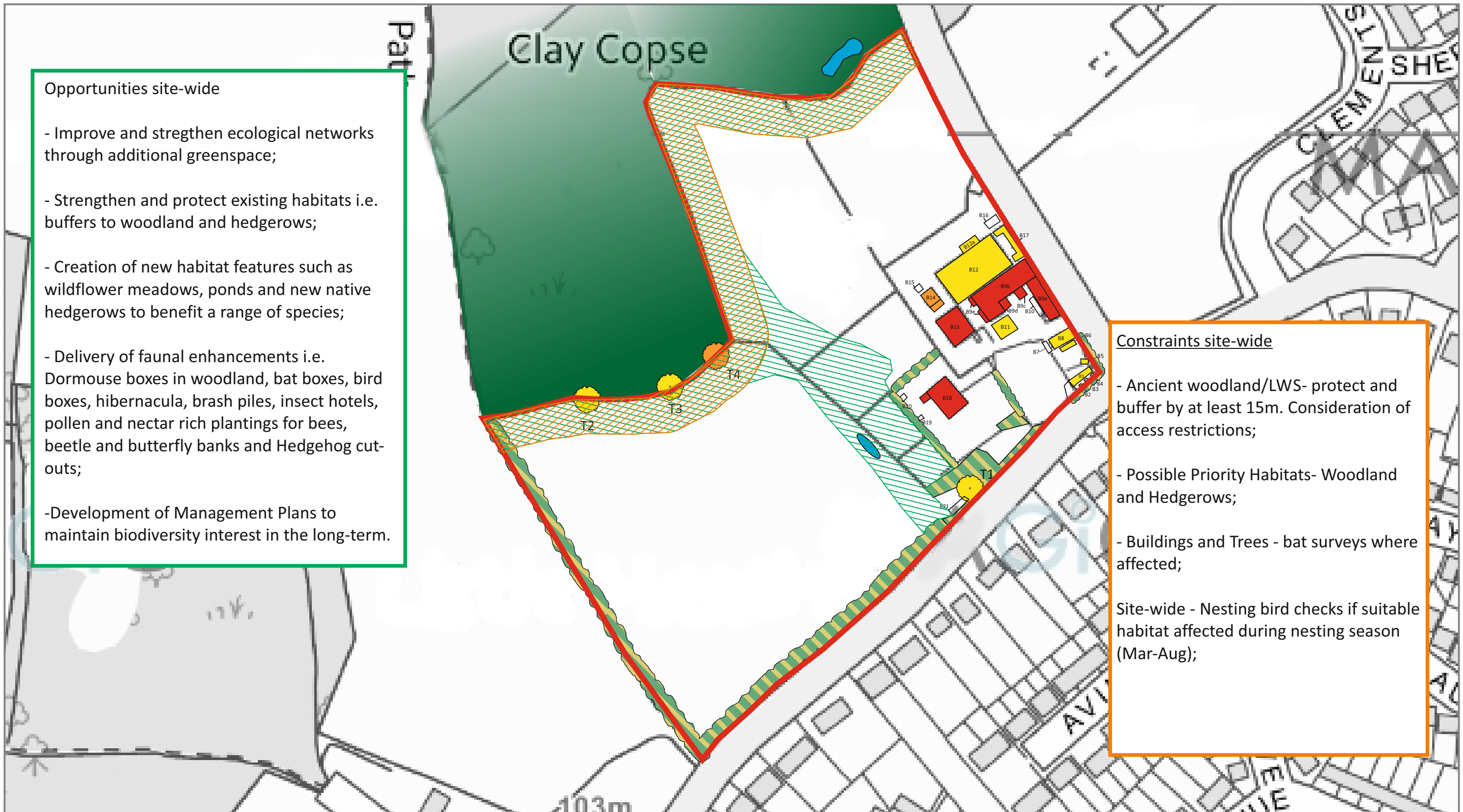
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Plan 5420/BN3:

Constraints and Opportunities



Opportunities site-wide

- Improve and strengthen ecological networks through additional greenspace;
- Strengthen and protect existing habitats i.e. buffers to woodland and hedgerows;
- Creation of new habitat features such as wildflower meadows, ponds and new native hedgerows to benefit a range of species;
- Delivery of faunal enhancements i.e. Dormouse boxes in woodland, bat boxes, bird boxes, hibernacula, brash piles, insect hotels, pollen and nectar rich plantings for bees, beetle and butterfly banks and Hedgehog cut-outs;
- Development of Management Plans to maintain biodiversity interest in the long-term.

Constraints site-wide

- Ancient woodland/LWS- protect and buffer by at least 15m. Consideration of access restrictions;
- Possible Priority Habitats- Woodland and Hedgerows;
- Buildings and Trees - bat surveys where affected;

Site-wide - Nesting bird checks if suitable habitat affected during nesting season (Mar-Aug);

Key:

- | | | |
|--|---|---|
| Site Boundary | Area likely proposed for greenspace creation and ecological corridors | Low bat potential building- further survey required if due to be affected by proposals |
| Ancient Woodland - retain, buffer by 15m*and enhance | Ponds - consider potential for amphibians | Low bat potential tree- further survey required if due to be affected by proposals |
| Hedgerows and scrub- retain and protect where possible | High bat potential building- further survey required if due to be affected by proposals | Moderate bat potential tree- further survey required if due to be affected by proposals |
| Indicative 15m Ancient Woodland buffer | Moderate bat potential building- further survey required if due to be affected by proposals | |



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* Buffer could extend to 50m if Natural England standing advice is updated.



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