



BDW Trading Ltd

Land at Box End, Bedford

REPRESENTATIONS IN RESPECT OF ECOLOGY

July 2022

FPCR Environment and Design Ltd

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Rev	Issue Status	Prepared / Date	Approved/Date
-	Final	VF / 07.07.22	RG / 08.07.22
A		VF / 15.07.22	

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INTRODUCTION

- 1.1 The following report has been prepared on behalf of Barratt Homes and David Wilson Homes (BDW Trading Ltd.) and provides an assessment of the ecological interest of, and potential for biodiversity net gain on, a site located at Box End, Bedford (hereafter referred to as 'the Site').
- 1.2 FPCR Ltd. is a multi-disciplinary environmental and design consultancy established over 60 years, with expertise in architecture, landscape, ecology, arboriculture, urban design, masterplanning and environmental impact assessment. The practice is a member of the Landscape Institute and Institute of Environmental Management and Assessment and is frequently called upon to provide expert evidence on landscape and visual issues at Public and Local Plan Inquiries.

Site Context

- 1.3 The Site comprises of land covering c.70 hectares located on Box End Road, to the north of Kempston and west of Bedford. The Site largely comprises arable land and is divided into two parcels by the B560. Further arable land lies adjacent to the north and west. To the south is Kempston cemetery and to the east is Box End Park and water sports centre.

Development Proposals

- 1.4 The Site has been put forward to the Bedford Borough Council to be allocated within the emerging Bedford Borough Local Plan for residential development.

Scope of Report

- 1.5 This Ecological Representations report describes the likely current ecological interest within and around the Site, which has been identified through standard desk- and field-based investigations. It then considers the potential ecological impacts and opportunities for ecological enhancement that could arise from residential development at the Site in the context of relevant legislation and planning policy. Finally, it identifies the likely necessary additional surveys required as well as measures to avoid, mitigate or provide compensation for potential impacts, and the mechanisms for securing such measures.

2.0 METHODOLOGY

Desk Study

2.1 In order to compile existing baseline information, relevant ecological information was requested from both statutory and non-statutory nature conservation organisations including:

- Multi Agency Geographic Information for the Countryside website (www.magic.gov.uk); and
- Bedford & Luton Biodiversity Recording and Monitoring Centre.

2.2 Further inspection, using colour 1:25,000 base maps (www.ordnancesurvey.co.uk) and aerial photographs (maps.google.co.uk), was also undertaken to provide additional context and identify any features of potential importance for nature conservation in the wider countryside.

2.3 The search area for biodiversity information was related to the significance of sites and species and the potential zones of influence (Zol)¹, as follows:

- 15km around the Site for sites of International importance (e.g. Special Area of Conservation [SAC], Special Protection Area [SPA] and Ramsar);
- 5km around the Site for sites of National or Regional Importance (e.g. Sites of Special Scientific Interest [SSSI] and National Nature Reserves [NNRs]); and
- 2km around the Site for sites of County Importance (e.g. Local Nature Reserves [LNRs], Local Wildlife Sites [LWS] and species records (e.g.: protected, UK priority or notable species).

2.4 All Desk study results are shown in **Figures 1** and **2a, 2b, 2c** and **2d** and in **Appendix A** and will be discussed within the relevant sections of this report.

Extended Phase I Survey

2.5 The Site (outlined in **Figure 1**) was surveyed by an appropriately experienced and qualified ecologist on 2nd June 2022.

2.6 Survey methods followed the extended Phase 1 Survey technique as recommended by Natural England². This involved a systematic walk over of the Site to classify the broad habitat types and to particularly identify any habitats of principal importance for the conservation of biodiversity as listed within Section 41 (S41) of Natural Environment and Rural Communities (NERC) Act 2006³.

Protected Species Surveys

2.7 Throughout the Phase 1 Habitat Survey, consideration was given to the actual or potential presence of protected species, such as (although not limited to) those protected under the Wildlife and Countryside Act 1981 (as amended), the Protection of Badgers Act 1992, and Conservation of Habitats and Species Regulations 2017 (as amended). Consideration was also given to the existence and use of the Site by other notable fauna such as species of principal importance for the conservation of biodiversity under S41 of the NERC Act 2006, or Birds of Conservation Concern (BoCC)⁴ Red listed species.

¹ Zone of Influence - the areas and resources that may be affected by the proposed development.

² JNCC. 1990. *Handbook for Phase 1 habitat survey – a technique for environmental audit*. Peterborough: JNCC

³ *The Natural Environment and Rural Communities Act 2006*. [Online]. London: HMSO Available at: <http://www.legislation.gov.uk/ukpga/2006/16/contents>

⁴ Eaton, M.A., Brown, A.F., Noble, D.G., Musgrove, A.J., Hearn, R.D., Aebischer, N.J., Gibbons, D.W., Evans, A. And Gregory, R.D. 2015 "Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel Islands and Isle of Man" *British Birds* 108:708-746.

Biodiversity Impact Assessment (BIA)

- 2.8 National Planning Policy Framework 2021 (Paragraph 174) recommends that “*planning policies and decisions should.... Minimise impacts on and provide net gains for biodiversity.*” However, the government is seeking to mandate biodiversity net gain across all future developments in England, with the recently passed Environment Bill to be used to make the statutory changes necessary to implement mandatory net gain.
- 2.9 To assess whether or not the proposals for the Site are capable of delivering a biodiversity gain, the Department for Environment, Food and Rural Affairs (DEFRA) Biodiversity Impact Assessment Calculator v3.1 was used, the results of which are discussed in line with the on-site mitigation proposals in Section 4 of this appraisal.
- 2.10 As the detailed layout and landscape design are not available at this stage, recommendations for the habitats within the greenspace are given and the BIA numbers based on these recommendations. This will be sufficient to determine whether or not the Site is capable of achieving a net gain in biodiversity.

3.0 RESULTS

Statutory Designations

- 3.1 The Site itself is not covered by any statutory designations; however, one national designation of ecological value, Hangar Wood SSSI, lies within the potential Zol as shown in **Figure 1**.
- 3.2 Biddenham Pit SSSI also lies within the Zol but is designated for geological reasons and is thus is not included within the scope of this report.
- 3.3 Hangar Wood SSSI lies approximately 750m north of the Site and represents one of the best remaining examples of wet ash-maple woodland in Bedfordshire, exhibiting a flora characteristic of the heavy, slightly basic clay soils. It encompasses a rich variety of shrubs and a diverse ground flora including species uncommon in the county.

Non-Statutory Designations

- 3.4 Non-statutory designations in Bedfordshire are known as County Wildlife Sites (CWSs). Other designations include Roadside Nature Reserves (RNRs). Six CWSs and two RNRs lie within 2km of the Site as shown in **Figure 1** and summarised in **Table 1**.

Table 1. CWSs and RNRs within the Site's Potential Zone of Influence

Site name	Approx. distance from Site	Interest feature(s)
River Great Ouse CWS	500m E	A County Wildlife Site comprising: the River Great Ouse within Bedfordshire.
Hanger Wood and Oxleys CWS	750m N	CWS comprising: Hanger Wood SSSI; Half Grown Spinney; Oxleys; a narrow strip of semi-natural broadleaved woodland adjacent to Hanger Wood SSSI. Hanger Wood, Oxleys and Half Grown Spinney are semi-natural broadleaved ancient woodland.
Astey Wood CWS	1.2km W	Semi natural ancient broadleaved woodland with large <i>Fraxinus</i> and <i>Quercus</i> standards with mixed understorey of <i>Corylus</i> , <i>Acer campestre</i> , <i>Crataegus</i> sp., <i>Ulmus glabra</i> , <i>Rosa canina</i> , <i>Prunus spinosa</i> , <i>Salix caprea</i> , <i>Cornus sanguinea</i> , <i>Malus sylvestris</i> and <i>Ligustrum vulgare</i> . The field layer is dominated by <i>Hyacinthoides</i> and <i>Mercurialis</i> .
Bromham Bypass RNR	1.2km N	Five substantial blocks (three main areas) of cutting slopes along the A428 sown with various wildflower mixtures in 1987 and subsequently managed annually to realize their wildlife potential.
Kempston Wood CWS	1.2km W	NVC W8- <i>Fraxinus-Acer-Mercurialis</i> with oak and ash in the canopy, including old ash coppice stools. The thick understorey consists of hazel and maple coppice with hawthorn and dense blackthorn. The field layer is dominated by dog's-mercury with bluebell and ground-ivy. Pollard oak and ash are present on a woodbank around the edge. Old maple and hazel coppice stools are also present. A grass strip divides it from the surrounding land. Un managed with no public access.
Ramsons Wood CWS	1.7km SW	NVC W8- <i>Fraxinus-Acer-Mercurialis</i> with a full canopy of oak and ash, including old ash coppice stools. The dense understorey consists of areas of hazel and maple coppice and hawthorn. Un managed with no public access.

Site name	Approx. distance from Site	Interest feature(s)
Stagsden Bypass RNR	1.5km W	A substantial area of verge including a permanently flooded balancing pond and some areas seeded with wildflowers.
Bromham Park CWS	2km NE	The site comprises of a field of marshy grassland to the east and an area of broadleaved woodland to the west, both of which lie north of the River Great Ouse.

Habitats

- 3.5 The habitats recorded during the Extended Phase 1 Survey are discussed in detail below and shown on **Figure 3**. The species lists and condition assessments for the BIA are given in **Appendix B**.

Arable Land

- 3.6 The Site predominantly comprised arable field parcels bounded by hedgerows with wide grassland margins.

Grassland

- 3.7 The field parcels were bounded by grassland margins. Combined these margins supported a wide variety of floral species however within individual 1m² quadrats species diversity was typically less than nine species. These margins were therefore categorised as low distinctiveness grassland. Some of these margins had been left uncut with a tall sward, especially along ditches. Others were shorter and subject to regular cutting. Grassland margins were categorised as being in moderate condition.

Scrub

- 3.8 There were some patches of willow *Salix* sp. and bramble *Rubus fruticosus* agg. dominated scrub in the northwest of the Site. Some hawthorn *Crataegus monogyna* and elder *Sambucus nigra* was also present. Scrub habitats were recorded as poor condition.

Hedgerows

- 3.9 There was a network of hedgerows across the Site. A majority of these hedgerows were thick and tall, included a number of trees, and provided high quality green corridors across the Site. Most of the hedgerows were in moderate condition with a few in poor condition.

Line of Trees

- 3.10 There was a line of trees and scrub with good species diversity along a field drain in the southern field parcel with a tall grass understory. This tree line was in moderate condition.

Ditches/Field Drains

- 3.11 There were a number of ditches/field drains that run throughout the Site. At the time of survey, none of these held any water and the channels were choked with vegetation. They were in poor condition. These measured approximately 1.3km length in total.

Fauna

- 3.12 A summary of the protected and notable species records returned during the desk study is provided in **Figures 2a, 2b, 2c and 2d** and in **Appendix A**.

Bats

Roosting

- 3.13 Records of roosts for Daubenton's bat *Myotis Daubentonii*, Natterer's bat *Myotis nattereri*, common pipistrelle *Pipistrellus pipistrellus* and soprano pipistrelle *Pipistrellus pygmaeus* were returned during the desk study, though many of these were old records (more than 20 years old). Bat records are shown in **Figure 2a**.
- 3.14 The Site contains no buildings but there are several mature trees, mostly in association with hedgerows, that could potentially support roosting bats.

Foraging/commuting

- 3.15 Records of the following bat species/families were returned during the desk study: common pipistrelle, soprano pipistrelle, brown long-eared bat, *Nyctalus* sp., noctule *Nyctalus noctula*, Natterers bat, Daubenton's bat, serotine *Eptesicus serotinus*, *Myotis* sp., and barbastelle *Barbastella barbastellus*.
- 3.16 The Site was deemed to have moderate suitability to support foraging and commuting bats due to the presence of the hedgerow network across the Site, linking to the surrounding woodlands and ponds.
- 3.17 Whilst the Site supports a network of foraging and commuting habitat, it is predominantly arable land which is of limited suitability to bat species. The field boundary habitats are most likely to be used for foraging and commuting behaviours on the way to the higher quality woodland and pond areas in the local area. The Site itself is not likely to be of high strategic significance to bats locally.

Breeding Birds

- 3.18 Several bird species records were returned during the desk study. Many of the species were wetland birds for which the Site provides no suitable breeding habitat. Records also included farmland specialists however such as skylark *Alauda arvensis* and yellow hammer *Emberiza citrinella* for which the Site does hold suitable habitat. The grassland margins also provide foraging habitat for barn owl *Tyto alba*.
- 3.19 The boundary hedgerows and trees are also likely to support a range of common and widespread breeding bird species, but in the context of the surrounding woodland areas that are considered to provide higher quality habitat. The existing bird records are summarised in **Figure 2b**.

Amphibians

- 3.20 Records were returned for great crested newt *Triturus cristatus*, smooth newt *Lissotriton vulgaris*, and toad *Bufo bufo*.
- 3.21 There are no ponds within the Site boundary and at the time of the survey the field drains were dry. There are several ponds within 250m of the Site and thus small numbers of amphibians

could potentially use the field boundary habitats in their terrestrial phase, particularly the hedgerows and grass margins. Amphibian records are summarised in **Figure 2b**.

Reptiles

- 3.22 Existing grass snake *Natrix helvetica* records were returned during the desk study.
- 3.23 The hedgerows and grass field margins and ditches/drains provided suitable habitat for grass snake and slow worm *Anguis fragilis*. The site is therefore considered suitable to support small numbers within these habitats. Reptile records are summarised in **Figure 2b**.

Badger

- 3.24 Badger records were returned during the desk study and the Site provides suitable foraging and sett building habitat for them. No evidence of the species was recorded during the site visit, however the site could potentially form part of a foraging territory.

Otter and other Riparian mammals

- 3.25 Records of otter *Lutra lutra* and water shrew *Neomys fodiens* were returned during the desk study but the Site does not hold suitable habitat for them, with the ditches/field drains being largely dry. These species are considered to be absent from the Site. Mammal records are shown in **Figure 2a**.

Other Notable Mammals

- 3.26 Records for brown hare *Lepus europaeus* and hedgehog *Erinaceus europaeus* were returned during the desk study. The Site provides suitable habitat for both species and the presence of each is assumed. Records were also returned for harvest mouse *Micromys minutus*. The Site provides some habitat for them in the longer grass and ruderal vegetation along the drainage ditches/channels, therefore the Site potentially supports small numbers. Mammal records are shown in **Figure 2a**.

Invertebrates

- 3.27 A number of notable invertebrate species, particularly butterflies and moths were returned during the desk study, as shown on **Figure 2c**. The Site largely comprised intensively managed arable land and thus is unlikely to support a significant invertebrate assemblage however the grassland field margins and hedgerows potentially support small numbers of notable species.

4.0 ECOLOGICAL CONSTRAINTS AND OPPORTUNITIES

Statutory Designations

- 4.1 There is one SSSI within 5km of the Site: Hanger Wood.
- 4.2 The Site is not within the Impact Risk Zone⁵ where Natural England is required to be consulted on the potential impacts from residential development. There are no direct terrestrial or hydrological habitat links between the Site and this SSSI. There is a public right of way from the Site to the edge and around the SSSI but not within it so it is not thought that recreation pressure will significantly increase from development at the Site.

Non-Statutory Designations

- 4.3 There are six CWSs and two RNRs within 2km of the Site.
- 4.4 There is some hydrological connectivity between the Site and the River Great Ouse CWS, but standard good practice working measures for pollution control during construction and an effective surface water drainage plan will ensure no impacts will occur on this CWS.
- 4.5 Given the intervening distance and/or lack of public access it is considered unlikely the development would result in adverse impacts on the remaining non statutory sites.
- 4.6 No direct impacts upon non-statutory sites are anticipated as a result of the development.

Habitats

- 4.7 The degree to which habitats receive consideration within the planning system relies on a number of mechanisms, including:
- Inclusion within a specific policy, for example veteran trees, ancient woodland and linear habitats within the National Planning Policy Framework (NPPF);
 - A non-statutory site designation;
 - Habitats considered as habitats of principal importance for the conservation of biodiversity as listed within Section 41 (S41) of the NERC Act 2006; or
 - Habitats identified as being a Priority Habitat within the local Biodiversity Action Plan (LBAP).
- 4.8 The onsite habitats identified during the survey which fall within the above listed categories are the hedgerows and associated trees.
- 4.9 There is scope to retain a majority of the hedgerows and mature trees within the designated green space. On a site of this size, these hedgerows can be incorporated into areas of green space including extensive green corridors that strengthen any existing, as well as create new, links to the surrounding area and the habitats it provides. Their incorporation as boundaries to private gardens should be avoided where possible.
- 4.10 Development at the Site has the potential to provide and enhance biodiversity within the green infrastructure by creating additional habitat types of local importance such as wetland areas (attenuation/SuDS features) as well as creating mixed scrub and woodland areas and a range of high diversity grasslands.

⁵ The Impact Risk Zones (IRZs) are a GIS tool developed by Natural England to make a rapid initial assessment of the potential risks to SSSIs posed by development proposals. They define zones around each SSSI which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts

BIA

- 4.11 The current value of the site calculated using the Defra Biodiversity Impact Assessment Metric v3.1 and based on the habitat definitions and condition assessments in **Appendix B** is 152.06 habitat units and 191.15 hedgerow units.

Habitats

- 4.12 At this stage, no detailed layouts or landscaping is available and thus a broad-brush approach has been taken to determine whether or not the Site is capable of a net gain in biodiversity.
- 4.13 Whilst some of the grassland and scrub can potentially be retained and enhanced (thus resulting in a higher net gain), this is not known at this stage and thus all habitats present on the Site are currently calculated as lost and all habitats post development are created.
- 4.14 The Site area is c.70 ha and the developable area is c.40.85 ha. Within the calculation this has been roughly split 70:30 buildings/hardstanding:gardens.
- 4.15 The remaining 29.15 ha is dedicated to greenspace and this area has the potential to create new, diverse habitats to benefit habitat and species biodiversity across the Site.
- 4.16 At present, this greenspace has been split into potential habitats that could be accommodated within a Site of this size and type. Whilst detail is not available at this time, this level will demonstrate that the Site is at least capable of achieving a net gain in biodiversity.
- 4.17 To be in line with the Vale of Marston SPD⁶, 50% of this green space is required to be woodland or 'woodland type' planting. This 50% (14.57 ha), at this stage has been split into 10 ha of broadleaved woodland planting and 4.57 ha of mixed scrub planting. There is potential for woodland blocks as well as shelter belts and other linear tree features to link the blocks. Scrub planting would compliment these features by creating edges and buffers to the woodland blocks and strengthening existing and new hedgerows.
- 4.18 The remaining 14.57 ha has been split between ponds (1.2 ha), 'other neutral grassland' (8.87 ha) (for wetland areas around SuDS features and wildflower grassland meadow areas and flowering lawns), modified grassland (3 ha) (for more amenity focussed areas) and hardstanding (1.51 ha) (for footpaths, roads, and play areas etc).
- 4.19 All of these green space habitats (with the exception of hardstanding and modified grassland) have been calculated as moderate condition. The modified grassland has been calculated as poor condition as this habitat is chosen for amenity areas with high levels of public access and thus maintaining a moderate condition is not guaranteed.
- 4.20 These figures result in a potential post development net gain of 34.48 units (22.67%).

Ditches

Approximately 400m of ditch is likely to be lost to development as it does not fall within greenspace. There is significant scope to enhance the remaining ditches through deepening such that these retain water, and planting with native aquatic plants. **Hedgerows**

- 4.21 There is scope to retain a majority of the hedgerows and the existing tree line within the extensive green space on the Site. There is furthermore potential to enhance some of these

⁶ Developing in the Forest of Marston Vale: Design Guidance Supplementary Planning Document Draft June 2022. Prepared by Central Bedfordshire Council, Bedford Borough Council and the Forest of Marston Vale Trust.

linear features through gapping up, additional species planting and simply by surrounding them with high quality greenspace to create strong green links across the development.

- 4.22 Any hedgerow losses can readily be mitigated through additional tree line creation and/or hedgerow creation within the green space. The hedgerow BIA has not been calculated at this time as specific hedgerow length removal is not known but a significant hedgerow gain can be readily achieved on the Site.

Fauna

- 4.23 Further surveys are required to determine which species are present within the Site and to what level but the habitat creation potential described below will increase foraging and sheltering opportunities on the Site for a range of protected and notable species.

Bats

- 4.24 Currently, the Site provides foraging and commuting opportunities along the hedgerows and field boundaries as well as potential roosts within some of the mature trees. A majority of these opportunities can be retained within a Site of this size. The green corridor creation opportunities described above will enhance the permeability of the Site for bats and other fauna by providing stronger green links to the wider area. The enhanced habitat diversity, particularly the wetlands, woodlands and high diversity grasslands will also enhance invertebrate diversity and thus foraging resources.
- 4.25 As good practice, to minimise potential effects to the local bat population, lighting at the peripheries of the Site and on any retained and created green infrastructure should be carefully designed in order to minimise light spill onto vegetated areas, particularly adjacent to those mentioned above. This could be achieved through a combination of positioning of fittings/luminaires and other design features such as directional hoods/baffles, timers, low level bollards, etc., to maintain 'dark zones' in key locations.

Breeding Birds

- 4.26 A majority of the breeding opportunities for birds within the Site can be readily retained within green infrastructure.
- 4.27 Whilst there will be some loss of habitat for ground nesting birds as a result of development at the Site, this is not thought to be strategically significant due to the amount of alternative suitable habitat surrounding the Site and throughout the local area.
- 4.28 The habitat creation opportunities described above will provide nesting opportunities for a range of bird species in the form of additional woodland, trees and scrub habitats. New wetland creation and planting of fruit and seed bearing trees and shrubs will enhance food sources.
- 4.29 Further enhancements in the form of the provision of a variety of bird nest boxes on retained trees and/or new buildings would provide additional opportunities for a variety of species.

Amphibians

- 4.30 Small numbers of amphibians are likely to use the site in their terrestrial phase. The new SuDS features can be sensitively designed to provide suitable breeding habitat where there currently is none present on site. Enhancement and creation of grassland, scrub and woodland will provide high quality terrestrial habitat that links these ponds.

- 4.31 Additional opportunities include installation of log piles and hibernacula throughout the green space.

Reptiles

- 4.32 Grass snake and slow worm potentially use the Site in low numbers. Whilst the loss of some of the grassland and hedgerows will reduce potential habitat, the potential increase in habitat diversity that would result from development at the Site could increase the quality of habitat available. Provision of green space at the site boundaries and linking to the surrounding valuable habitats off-site will retain the site permeability for reptiles. There are additionally opportunities for the creation of sheltering and hibernation habitat through installation of hibernacula and log piles within the green space, especially around the SuDS.

Badger

- 4.33 No setts were identified within the Site. The scope for habitat creation within the greenspace will enhance foraging opportunities for badger and ensure the Site remains permeable to them, allowing access to the wider area.

Other Mammals

- 4.34 It is considered that the potential for habitat creation at the Site as discussed above will also provide additional opportunities for hedgehog. Further enhancement such as provision of log piles or hedgehog houses could easily be incorporated into retained and created habitats.
- 4.35 Some habitat for brown hare will remain on site but the majority will be lost to this species. This loss is not considered to be significant however given to the amount of similar habitat and habitat of higher suitability within the surrounding area.

Further Surveys

A suite of further surveys will be required to accompany any future application on this Site. These include:

- Bat Activity surveys (a combination of walked transects and static detectors);
- Badger Survey;
- Great crested Newt surveys (of ponds within 250m of the Site);
- Breeding Bird Survey (particularly for farmland specialists; and
- Reptile Survey (focussing on field boundaries and along the ditches.

5.0 CONCLUSIONS

- 5.1 The desk- and field-based baseline investigations have demonstrated that the habitats present within and around the Site do not pose an 'in principle' constraint to the residential development at the Site. Further surveys are required to determine the protected and notable species using the Site but any required mitigation can be readily included within the greenspace on a site of this size.
- 5.2 Development at the Site has the potential to increase not only the grassland diversity (and so increase the network of unimproved grassland already present in the area) but also the overall habitat diversity. This, in turn, will increase the diversity of species that the Site can support. There are likely to be no protected or notable species or habitats present that cannot be accommodated and additional opportunities provided for, within on-site green infrastructure.

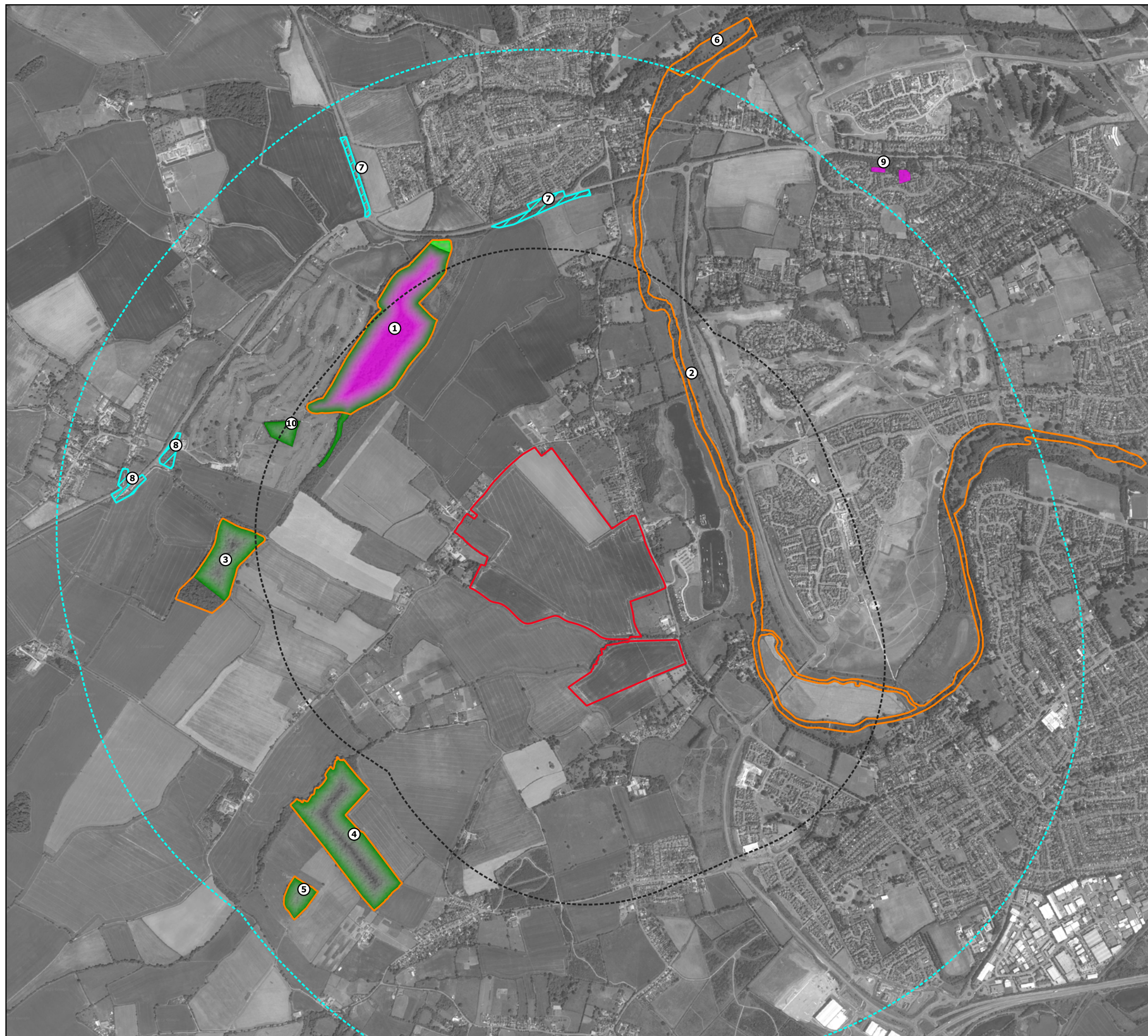
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Key

-  Site Boundary
-  1km Buffer
-  2km Buffer
-  County Wildlife Site (CWS)
-  Roadside Nature Reserve (RNR)
-  Site of Special Scientific Interest (SSSI)
-  Ancient Semi-Natural Woodland (ASNW)
-  Replanted Ancient Woodland Site (PAWS)

- 1 - Hangar Wood and Oxleys CWS, SSSI, ASNW, PAWS**
- 2 - River Great Ouse CWS**
- 3 - Astey Wood CWS, ASNW**
- 4 - Kempston Wood CWS, ASNW**
- 5 - Ransoms Wood CWS, ASNW**
- 6 - Bromham Park CWS**
- 7 - Bromham Bypass RNR**
- 8 - Stagsden Bypass RNR**
- 9 - Biddenham Pit SSSI**
- 10 - Unnamed ASNW**



client
Barratt Homes

project
Land at Box End,
West of Bedford

drawing title
**SITE LOCATION AND CONSULTATION
RESULTS PLAN - DESIGNATED SITES**



scale @ A3
1:20000

drawn
LG / VF

issue
5/7/2022

drawing / figure number
Figure 1

rev
-

Key

- Site Boundary
- 1km Buffer
- 2km Buffer

Bats

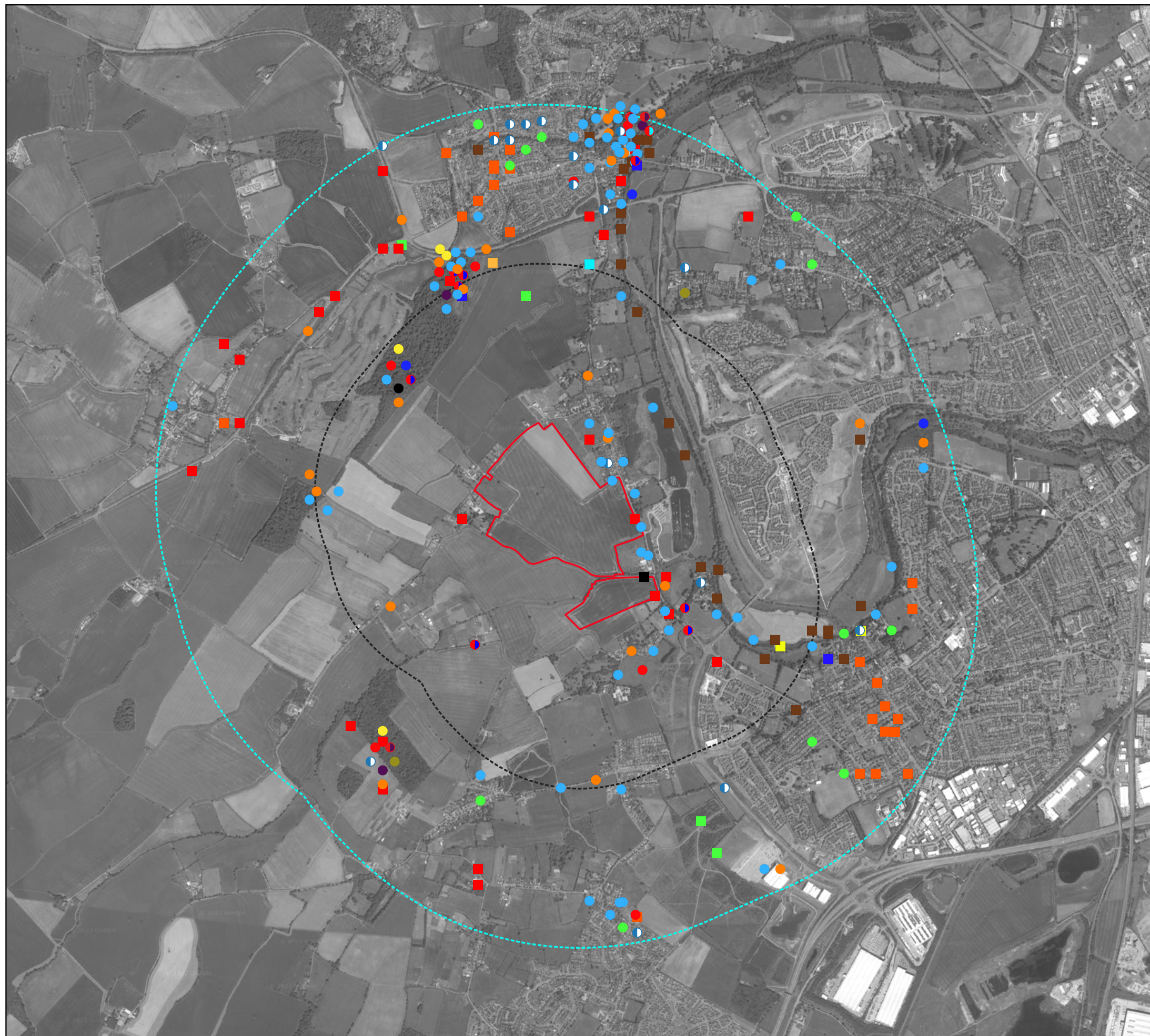
- Barbastelle
- Brown Long-eared
- Common Pipistrelle
- Daubenton's
- Myotis sp.
- Natterer's
- Noctule
- Nyctalus sp.
- Nyctalus/Eptesicus
- Pipistrelle sp.
- Serotine
- Soprano Pipistrelle
- Unidentified bat sp.

Marine Mammals

- Grey Seal

Terrestrial Mammals

- Badger
- Brown Hare
- Harvest Mouse
- Hedgehog
- Otter
- Polecat
- Stoat
- Water Shrew



client
Barratt Homes

project
**Land at Box End,
West of Bedford**

drawing title
**SITE LOCATION AND CONSULTATION RESULTS PLAN -
SPECIES RECORDS - BATS, MARINE & TERRESTRIAL
MAMMALS**

scale @ A3
1:25000

drawn
LG / VF

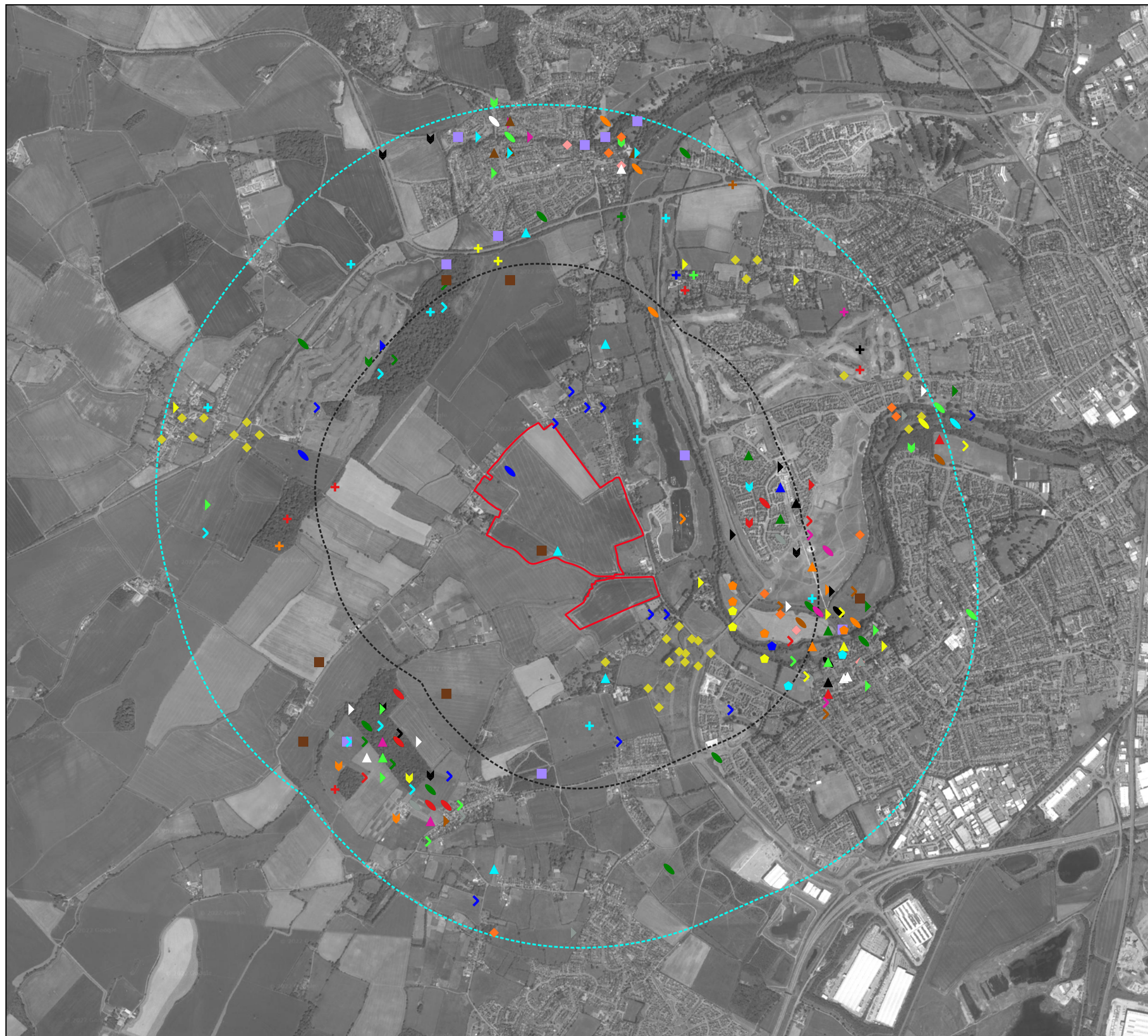
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Figure 2a

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Key

Site Boundary	1km Buffer	2km Buffer
Birds		
Barn Owl	Lesser Redpoll	Spotted Flycatcher
Black-headed Gull	Linnet	Starling
Bullfinch	Little Grebe	Stock Dove
Common Sandpiper	Little Owl	Stonechat
Corn Bunting	Mallard	Swallow
Fieldfare	Marsh Tit	Swift
Golden Plover	Meadow Pipit	Tawny Owl
Goldfinch	Mistle Thrush	Treecreeper
Goosander	Mute Swan	Turtle Dove
Greenfinch	Nuthatch	Wheatear
Grey Partridge	Oystercatcher	Whinchat
Grey Wagtail	Peregrine	White/Pied Wagtail
Herring Gull	Redwing	Willow Warbler
Hobby	Reed Bunting	Woodcock
House Martin	Rook	Wren
House Sparrow	Short-eared Owl	Yellowhammer
Kestrel	Siskin	
Kingfisher	Skylark	
Lapwing	Sparrowhawk	
Fish		
Barbel	Eel	Spined Loach
Bullhead		
Herpetofauna		
Common Toad	Grass Snake	Great Crested Newt
Invasive and Non-Native Species (INNS)		
Chinese Muntjac	Chinese Water Deer	
Notable Plants		
Bee Orchid	Greater Dodder	Sweet-briar
Bluebell	Green Hellebore	Tormentil
Columbine	Sea-buckthorn	Wild Clary
Crested Cow-wheat	Sowbread	



client
Barratt Homes

project
Land at Box End,
West of Bedford

drawing title
SITE LOCATION AND CONSULTATION RESULTS PLAN -
BIRDS, FISH, HERPETOFAUNA, INNS & NOTABLE PLANTS

scale @ A3
1:25000

drawn
LG / VF

issue
5/7/2022

drawing / figure number
Figure 2b

rev
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