

**EXTENDED PHASE 1  
HABITAT SURVEY**

Land Value Alliances LLP

**Selwood Garden Village**

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## CONTENTS

1.	INTRODUCTION	1
2.	METHODOLOGY	2
3.	RESULTS	8

## PLANS

PLAN GRE 1	ECOLOGICALLY DESIGNATED SITES
PLAN GRE 2	HABITATS PLAN
PLAN GRE 3	HAZEL DORMICE SURVEY PLAN
PLAN GRE 4	POND SURVEY PLAN
PLAN GRE 5	BREEDING BIRDS SURVEY PLAN
PLAN GRE 6	REPTILE SURVEY PLAN

## **1. INTRODUCTION**

### **Background**

- 1.1 This extended phase 1 habitat survey report has been produced by Grass Roots Ecology to inform emerging proposals for up to 1,700 residential dwellings, employment land, a local centre, education provision and social infrastructure together with other supporting infrastructure, public open space, parks and wildlife corridors.

### **Objectives**

- 1.2 This report sets out the findings of a desk study, a series of phase 1 habitat survey visits and a series protected/notable species surveys. In doing so, it also serves to provide further detail in supplementing the Ecology and Nature Conservation Environmental Statement (ES) chapter which accompanies the submitted planning application.

## 2. METHODOLOGY

- 2.1 This extended phase 1 habitat survey report has been prepared with due regard to the recent guidance for ecological report writing produced by the Chartered Institute of Ecology and Environmental Management (CIEEM)<sup>1</sup>.
- 2.2 It has been undertaken by a 'suitably qualified ecologist' with more than 12 years of experience as a practising ecological consultant and nearly 20 years of experience within the environmental assessment and development planning sectors. The author also holds both Bachelor of Science and Master of Science degrees in ecology related subjects, is a full member of CIEEM and possesses relevant European Protected Species licences with Natural England.

### Desk Study

- 2.3 Both Somerset Environmental Records Centre (SERC) and Wiltshire & Swindon Biological Records Centre (WSBRC) were contacted in December 2017 to provide protected/notable species records (within a 4km search radius from the centre of the site) and information on designated sites (6km search radius). Data received has informed this ecological survey report where required and (subject to any confidentiality restrictions) can be made available on request.
- 2.4 Further information on protected species and statutory designated sites relating to a wider search area was also obtained where appropriate from inspecting the online National Biodiversity Network (NBN) Atlas<sup>2</sup> and Multi-Agency Geographic Information for the Countryside (MAGIC)<sup>3</sup> databases respectively.

### Phase 1 Habitat Survey

- 2.5 An extended Phase 1 habitat survey of the site was initially undertaken in December 2017 with further detailed check surveys made up until May 2020 prior to the submission of the planning application.

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<sup>1</sup> Chartered Institute of Ecology and Environmental Management (CIEEM) (2015) *Guidelines for Ecological Report Writing*, CIEEM, Technical Guidance Series, accessed at: [http://www.cieem.net/data/files/Resource\\_Library/Technical\\_Guidance\\_Series/Guidelines\\_for\\_Ecological\\_Report\\_Writing/Guidelines\\_for\\_Ecological\\_Report\\_Writing\\_and\\_Appendices\\_May2015.pdf](http://www.cieem.net/data/files/Resource_Library/Technical_Guidance_Series/Guidelines_for_Ecological_Report_Writing/Guidelines_for_Ecological_Report_Writing_and_Appendices_May2015.pdf)

<sup>2</sup> <https://nbn.org.uk>

<sup>3</sup> <http://magic.defra.gov.uk>

- 2.6 The habitat surveys were performed in line with the methodology set out by the Joint Nature Conservation Committee (JNCC), as recommended by Natural England, where all habitats types were mapped according to the codes and conventions described within JNCC's handbook for phase 1 habitat survey<sup>4</sup>. This technique also allows any habitat areas of greater potential to be identified for more detailed survey.
- 2.7 The habitat survey identified the need for further species-specific surveys (see below) to inform the proposals and ensure that all ecological constraints could be identified and fully understood.

### **Faunal Survey**

- 2.8 Particular attention was given during the habitat survey visits for the presence of habitats and features capable of supporting protected, notable or priority species, with specific consideration given to the following groups/species;

#### Bats

- 2.9 Given the full legal protection<sup>5</sup> afforded to all UK bat species under schedule 5 of The Wildlife and Countryside Act 1981 (as amended) and schedule 2 of The Conservation of Habitats and Species Regulations 2017 (as amended) (the 'Habitats Regulations'), any trees and built structures likely to be affected by the proposals were assessed for their potential to support roosting bats.
- 2.10 The habitats on site were also appraised in terms of their value as foraging areas and commuting routes, both in the context of the site and the wider landscape. Additionally, this assessment was combined with the results of the desk study to ascertain the level of connectivity between the site and other suitable bat habitat in the vicinity of the site. Indeed, given the scale of the site, the habitats present and the presence of nearby Horseshoe bat populations a series of bat activity surveys were also performed. The full methodology and results of all bat surveys are set out in detail in the separate Bat Survey Report.

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<sup>4</sup> Joint Nature Conservation Committee (JNCC) (2010) *Handbook for phase 1 habitat survey – a technique for environmental audit*.  
<sup>5</sup> where both the species and its habitat (roosting sites) are protected.

- 2.11 A full assessment detailing the bat survey work undertaken and subsequent results and assessment can be seen in the Bat Survey Report.

### Hazel Dormice

- 2.12 Hazel Dormice *Muscardinus avellanarius* are also afforded full legal protection under schedule 5 of The Wildlife and Countryside Act 1981 (as amended) and schedule 2 of the Habitats Regulations.
- 2.13 Any hedgerows, scrub and woodlands were assessed during the walkover for their suitability to support Hazel Dormice. Particular consideration was paid to the abundance of food sources within them, density for nesting and overnight shelter and the strength of connectivity to other (off-site) habitat.
- 2.14 Given populations are known in the wider area and that suitable habitat was identified, specific surveys were undertaken from June 2019 until October 2020 in line with Natural England's Dormouse Conservation Handbook involving the deployment of nesting tubes.
- 2.15 Where Hazel *Corylus avellana* was recorded, a search for gnawed hazelnuts was also conducted.

### Badgers

- 2.16 Given the legal protection afforded to Badger under the Protection of Badgers Act 1992, particular attention was given to any evidence indicating activity, such as the presence of a sett, well-worn paths/push-throughs, footprints, latrines and foraging signs. Where possible, this search extended to 30m from the site boundary.

### Great Crested Newts

- 2.17 Any ponds within and in close proximity to the site<sup>6</sup> were identified and appraised for their suitability to support Great Crested Newts *Triturus cristatus*. This

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<sup>6</sup> It is widely appreciated that without barriers to dispersal Great Crested Newts can traverse distances of up to 500m from their respective breeding ponds and suitable terrestrial habitat within this distance *could* be utilised, but suitable habitat at much closer distance will be more commonly used. Historically, when Great Crested Newt mitigation schemes were in their infancy, this distance from a development site was taken as the maximum distance at which Great Crested Newts could be relevant to a development scheme. However, more recent guidance has demonstrated that this zone of influence is in reality typically much smaller. For example, a research report<sup>6</sup> undertaken by English Nature (now Natural England) in 2004, concluded that "... the most comprehensive mitigation, in relation to avoiding disturbance, killing or injury is appropriate within 50m of a breeding pond. It will also always be necessary to actively capture newts 50-100m away. However, at distances greater than 100m, there should be careful consideration as to whether attempts to capture newts are necessary or the most effective option to avoid incidental mortality. At distances greater than 200-250m, capture

involved a visual survey involving the recognised Habitat Suitability Index assessment method as set out in Amphibian and Reptile Groups of the UK's guidance note<sup>7</sup>. Where required, more detailed assessment in the form of water analysis to test for environmental DNA was also performed in line with Natural England's approved protocol<sup>8</sup>.

### Birds

- 2.18 Any birds were recorded, either visually or by call, as part of the habitat surveys and other species-specific surveys. This equated to in excess of 25 individual visits over the course of the various habitat surveys and other species-specific surveys performed at the site.
- 2.19 A series of specific breeding bird surveys were also performed at monthly intervals during April–May 2018 (the peak bird breeding season for lowland Britain) by an experienced ornithologist. The surveys adopted a Common Bird Census (CBC) 'territory mapping' approach involving recording the location and breeding activity of all species of conservation concern. Owing to the size of the land to be surveyed, each 'survey' consisted of two visits on consecutive mornings.
- 2.20 The breeding bird surveys also specifically targeted the River Frome to check for any signs/sightings of Kingfisher *Alcedo atthis* (a Schedule 1 species that is typically under recorded by standard breeding bird survey methodology).

### Reptiles

- 2.21 UK reptile species<sup>9</sup> (Common Lizard, Slow-worm, Grass Snake and Adder) receive partial legal protection<sup>10</sup> under Schedule 5 of The Wildlife and Countryside Act 1981 (as amended).
- 2.22 Given some areas of suitable habitat for this group were identified within the site, a series of specific surveys involving the deployment of artificial refugia were

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*operations will hardly ever be appropriate.*" Moreover, studies by Jehle<sup>6</sup> and Cresswell & Whitworth<sup>6</sup> have also demonstrated that the habitat within 50m of the pond is the most important to Great Crested Newts and supports the majority of the population within its terrestrial phase. Newts generally only disperse beyond this area where there are suitable habitat features linking the breeding pond to the terrestrial habitat. Accordingly, identification of any ponds within 250m of the site was considered to be appropriate.

<sup>7</sup> ARG UK Advice Note 5: Great Crested Newt Habitat Suitability Index

<sup>8</sup> <http://sciencesearch.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&Completed=0&ProjectID=18650>

<sup>9</sup> Note that the application site does not contain suitable habitat for the less common UK reptile species (Sand Lizard *Lacerta agilis* and Smooth Snake *Coronella austriaca*) which are afforded full legal protection (similar to bats and Great Crested Newts).

<sup>10</sup> where the species itself is protected (from killing and injury) but not its habitat.

performed. Following a sufficient 'bedding in' period the refugia were checked on seven occasions during suitable weather conditions between June and September 2019.

#### Invasive species

- 2.23 Invasive species such as Japanese knotweed *Fallopia japonica* and Himalayan Balsam *Impatiens glandulifera* were searched for and recorded.

#### Other notable species

- 2.24 The River Frome was also checked for signs of Otter *Lutra lutra*, Water Vole *Arvicola amphibius* and, as mentioned above, Kingfisher.

### **Limitations**

#### Desk Study

- 2.25 The data provided by SERC and WSBRC were not exhaustive. Therefore, there remains the potential for further protected/notable species to occur within the vicinity of the site, that were not included within the data search.

#### Field Survey

- 2.26 Every effort has been made to perform the habitat surveys during the optimum time of year to allow a robust assessment of the value of the habitats and identification of constraints.
- 2.27 Any assessment of the habitats must be considered as a 'snapshot' of the existing conditions on the day and time of survey and therefore does not represent a comprehensive list of flora and fauna.
- 2.28 The nature of the land use within the majority of the site (modern dairy farm), resulted in some habitats being subject to change between survey visits, owing to arable/grazing rotation.



- 2.29 Moreover, ecological constraints will change over time and it is considered that the findings of this extended phase 1 habitat survey are to be valid for a period of one year, after which a habitat/walkover survey should be repeated to check that the baseline conditions have not significantly changed.

### Bats

- 2.30 Bats are secretive animals and can roost in very small crevices/features which are not always visible. As such, signs of use can be largely absent when a small number of bats are present and therefore field signs can be missed during survey work. Under such circumstances, professional judgement is applied in assessing the likelihood of encountering bats.

### Badgers

- 2.31 It should be noted that it is not always possible to identify signs of Badger where there are areas of dense vegetation as this can conceal features such as setts. Also, where a sett is identified, it is not always possible to locate and count every entrance and activity can change in a short period of time and is also dependent on the time of year.

### **3. RESULTS**

#### **Context**

- 3.1 The site is located on farmland to the immediate south and southeast of Frome and encompass the small settlement areas of Little Keyford and Blatchbridge.
- 3.2 Existing development (predominately industrial and commercial) is located to the north of the site with open countryside interspersed with individual houses and pockets of housing elsewhere. Land to the immediate north is also being progressed for forthcoming development.
- 3.3 The southern part of the site is intersected by A361 and a railway line forms part of the eastern boundary with the River Frome running through portions of the site.

#### **Statutory designated wildlife sites**

- 3.4 All statutory designated sites within the vicinity of the site are shown on Plan GRE 1.
- 3.5 The nearest statutory designated site is Longleat Woods Site of Special Scientific Interest (SSSI) located approximately 1.6km to the southeast. It is designated predominately on account of its ancient woodland habitat with populations of Hazel Dormice also known to be present.
- 3.6 Mells Valley SAC is located approximately 2.5km to the northwest. It is designated for its grassland habitat and cave systems, which support 12% of the national population of Greater Horseshoe bat, which both breed and hibernate at the site.
- 3.7 Also of note is Ironstone Works Mells SSSI located approximately 4km to the northwest which is designated in part for its Greater Horseshoe and Lesser Horseshoe bat populations.

3.8 Other statutory designated sites situated at further distances from the site include:

- Vallis Vale SSSI (2.5km northwest) – woodland habitat (continuous with the Mells Valley SAC)
- Postlebury Wood SSSI (3km southwest) – woodland habitat
- Bradley Woods SSSI (3.8km southeast) – Alder woodland

3.9 These statutory designated sites will need to be give due regard within the forthcoming ES chapter.

### **Non-statutory designated sites**

3.10 A Local Wildlife Site (LWS) (Vinney Lane) is located within the site, as shown on Plan GRE 2. It represents a short length of stream and was notified as a LWS following a recording of a notable aquatic beetle *Agabus biguttulus* in 1996.

3.11 Land in close proximity to the southwest beyond the A361 is recognised for its parkland habitat (Marston Park LWS).

3.12 Other LWSs in the vicinity of the site include:

- Horley Wood LWS (500m south) – semi-natural woodland and plantation habitats
- Thickthorn Wood LWS (700m south) – semi-natural woodland, scrub and ride habitats

3.13 These non-statutory designated sites will also need to be give due regard within the forthcoming ES chapter.

### **Habitats within the site**

3.14 Habitats are shown on Plan GRE 2.

3.15 Photographs are also appended to this report.

### Improved Grassland

- 3.16 The majority of the site is managed as a silage crop and grassland leys comprising a mixture of Perennial Ryegrass, Italian Ryegrass and other hybrid ryegrasses with a high proportion of White Clover. Other species observed within the improved grassland habitat comprise occasional Yorkshire-fog, Cock's-foot, Broad-leaved Dock and Common Nettle. Being intensively managed the sward was observed to be generally short for the duration of the surveys.
- 3.17 Whilst the improved grassland habitat is of little/no intrinsic value in habitat terms, some value is afforded for the foraging habitat provided for local Greater Horseshoe bat populations (see below).

### Arable

- 3.18 Large areas of the site are subject to further intensive agricultural management and are ploughed and cultivated to provide a further silage crop (Maize).

### Semi-improved Grassland

- 3.19 Other habitat under agricultural management comprises semi-improved grassland. These areas were observed to be subject to intermittent cattle and horse grazing.
- 3.20 Fields to the west and east of Little Keyford Lane offer some botanical interest within the context of the site, principally for the number of grass species observed rather than for any herbaceous value. Cock's-foot, Yorkshire-fog, Perennial Ryegrass, False Oatgrass, Red Fescue, Tall Fescue, Soft-brome, Crested Dog's-tail, Meadow Foxtail and Smaller Cat's-tail formed the grassy component with False-brome, Rough Meadowgrass and Common Couch observed along the boundaries. White Clover, Red Clover, Common Bird's-foot-trefoil, Oxeye Daisy, Cut-leaved Crane's-bill, Common Vetch, Meadow Buttercup and Field Bindweed form the herbaceous component. These fields are cattle grazed on occasion and cut for haylage.

- 3.21 Further semi-improved grassland is present in the southeast area of the site (the majority being east of the River Frome). Dominant grass species comprise Perennial Ryegrass, Yorkshire-fog, Cock's-foot, Crested Dog's-tail, Meadow Foxtail, Common Bent, with Smaller Cat's-tail, Sweet Vernal-grass, Timothy and Wall Barley also observed. False Oat-grass and Rough Meadowgrass is abundant at the boundaries along with occasional Common Couch in other unmanaged areas. Meadow Buttercup, Creeping Buttercup and Broad-leaved Dock was also observed. These fields are subject to regular horse grazing.
- 3.22 Other semi-improved grassland is present to the south of the A361. Perennial Ryegrass dominates in areas with other species comprising Yorkshire-fog, Cock's-foot, Crested Dog's-tail, Meadow Foxtail, False Oatgrass with White Clover, Red Clover, Creeping Thistle, Common Sorrell, Creeping Buttercup and Hard-rush observed in damper areas. The field is subject to intermittent grazing (cattle: western field, horse: eastern field).
- 3.23 In relation to solar farm site, a further area of semi-improved grassland is present in the southern land parcel. It comprises Common Bent, which dominates large areas, with other species present comprising Perennial Ryegrass, Sweet Vernal Grass, Yorkshire-fog, False Oatgrass, Cock's-foot, Smaller Cat's-tail, White Cover, Creeping Buttercup, Ribwort Plantain and Common Ragwort with rare occurrences of Red Clover, Common Knapweed and Meadow Vetchling.

#### Field Margins

- 3.24 Obvious field margins are generally absent given the intensive agricultural management regime. However, where they do occur they are defined by species such as False Oat-grass, Yorkshire-fog, Cock's-foot, Rough Meadowgrass, Common Couch, Red Fescue, Barren Brome and Meadow Foxtail. Cow Parsley, Hemlock, Burdock, Great Willowherb, Hogweed, Broad-leaved Dock and Field Bindweed were also observed. Some areas were observed to be somewhat rank and tussocky in places and provide habitat for common reptiles.

## Hedgerows

- 3.25 Hedgerows delineate the majority of the fields across the site. Approximately 30% of the hedgerow network is considered to be relatively species-rich comprising six or more native woody species, these tending to be situated in the west and north. A proportion of these could be identified as being 'ecologically important' under the Hedgerow Regulations 1997.
- 3.26 The hedgerows are labelled on Plan GRE 2 and summarised on the table below.

Hedge No.	Description
1	Tall, roadside hedgerow comprising hawthorn, blackthorn, hazel and field maple
2	Old hedgerow comprising hawthorn, field maple, blackthorn, hazel, elm and elder
3	Largely unmanaged hedge comprising hawthorn, blackthorn, elm, holly and privet. Group of mature hawthorn and elder standards also present
4	Old hedgerow comprising hawthorn, blackthorn, elm, guelder rose and dogrose
5	Old hedgerow comprising hawthorn, field maple, elm, hazel, blackthorn, dogwood, lilac and elder
6	Old hedgerow comprising hawthorn, field maple, elm, hazel, blackthorn, dogwood, lilac and elder. Group of trees comprising goat willow, hazel and lime at southern end
7	Dense hedgerow comprising hawthorn, blackthorn, hazel, field maple, dogwood and elder, with occasional standards
8	Dense hedgerow comprising hawthorn, blackthorn, hazel, field maple and elder
9	Dense hedgerow comprising hawthorn, blackthorn, hazel, field maple and elder
10	Old hedgerow comprising hawthorn, blackthorn, hazel and field maple
11	Wide, roadside hedge comprising hawthorn, hazel, elm and elder
12	Old hedgerow comprising hawthorn, field maple, elm, hazel, blackthorn, dogwood, crab apple and elder
13	Old, roadside, hedgerow comprising hawthorn, field maple, elm, hazel, blackthorn, dogwood, crab apple and elder
14	Dense hedgerow with wet ditch comprising hawthorn, blackthorn, hazel, field maple, dogwood and elder
15	Dense hedgerow with wet ditch comprising hawthorn, blackthorn, hazel, field maple, dogwood, spindle and elder
16	Dense hedgerow comprising hawthorn, blackthorn, hazel, field maple, dogwood and elder
17	Dense hedgerow comprising blackthorn, hawthorn, hazel, H26 field maple, crab apple, elm, dogrose and elder
18	Young boundary hedgerow comprising hawthorn and field maple. A line of screening trees comprising field maple, ash, sycamore and hawthorn runs adjacent, directly on the roadside
19	Tall hedgerow comprising hawthorn and field maple. Small group of roadside trees comprising field maple, hawthorn and hazel, at western end
20	Old, roadside hedgerow comprising field maple, hazel, sycamore and hawthorn

21	Field boundary hedgerow with ditch, comprising field maple, hazel and hawthorn
22	Field boundary hedgerow comprising hawthorn and hazel
23	Field boundary hedgerow comprising field maple, hazel and hawthorn
24	Old, field boundary hedgerow with ditch, comprising field maple, hazel, elm and hawthorn
25	Old hedgerow comprising dogwood, willow, field maple and hawthorn
26	Field boundary hedgerow comprising dogwood, hawthorn and hazel. A small section at the roadside end have escaped management, forming standard trees
27	Field boundary hedgerow comprising dogwood, hawthorn and hazel. A small section at the roadside end have escaped management, forming standard trees
28	Field boundary hedgerow with ditch comprising hazel, field maple and hawthorn
29	Tall hedgerow comprising hawthorn and field maple
30	Dense hedgerow comprising hawthorn, blackthorn, hazel, field maple and elder
31	Field boundary hedgerow comprising dogwood, blackthorn, hawthorn and field maple
32	Old hedgerow comprising blackthorn and dogwood
33	Field boundary hedgerow comprising blackthorn and elm
34	Hedgerow comprising predominantly elm, with blackthorn, hawthorn, field maple, ash, dogwood and elder
35	Unmanaged hedgerow comprising field maple, blackthorn, hazel, hawthorn, elm and elder
36	Boundary hedgerow comprising elm, blackthorn, hawthorn, field maple, ash, dogwood and elder
37	Roadside hedgerow comprising blackthorn, hawthorn, hazel, field maple, elm, dogrose and elder
38	Hedgerow comprising blackthorn, hawthorn, ash, field maple, elm and elder
39	Apparently unmanaged hedgerow comprising field maple, blackthorn, hazel, hawthorn, elm and elder
40	Managed hedgerow comprising elm, hawthorn and elder
41	Apparently unmanaged hedgerow comprising field maple, blackthorn, hazel, hawthorn, elm, ash and elder
42	Apparently unmanaged hedgerow comprising field maple, blackthorn, hazel, hawthorn, elm and elder
43	Apparently unmanaged hedgerow comprising field maple, blackthorn, hazel, hawthorn, elm, goat willow and elder
44	Apparently unmanaged hedgerow comprising blackthorn, hawthorn, ash, field maple, elm, spindle, goat willow and elder
45	Roadside hedgerow comprising field maple, elm, goat willow, holly and elder
46	Relatively species rich hedgerow comprising blackthorn, hawthorn, hazel, field maple, elm, spindle, goat willow and elder
47	Roadside hedgerow comprising elm, blackthorn, hawthorn, field maple, ash, dogwood and elder
48	Intermittent hedgerow comprising blackthorn, hawthorn, hazel, ash, field maple, elm, dogwood and elder. Belt of trees present along ditch comprising elm, hawthorn, hazel, field maple and elder
49	Roadside hedgerow comprising blackthorn, hawthorn, hazel, ash, field maple, elm, dogwood and elder
50	Intermittent hedgerow comprising blackthorn, hawthorn, hazel, field maple, elm, sycamore and elder

51	Prominent line of trees comprising black pine, yew, sycamore, holly and hawthorn
52	Old, field boundary hedgerow comprising hawthorn, dogwood, blackthorn and hazel
53	Old, field boundary hedgerow comprising elm, blackthorn, hawthorn and field maple
54	Old, field boundary hedgerow comprising elm, blackthorn, hawthorn and field maple
55	Old, field boundary hedgerow comprising elm, blackthorn, hawthorn and field maple
56	Apparently unmanaged, field boundary hedgerow comprising elm, field maple, dogwood and hazel. Dutch elm disease apparent
57	Old hedgerow comprising blackthorn, field maple and hawthorn
58	Old hedgerow comprising blackthorn, field maple and hawthorn
59	Old hedgerow comprising blackthorn, field maple and hawthorn
60	Field boundary hedgerow comprising field maple and hazel
61	Field boundary hedgerow comprising field maple, hawthorn and blackthorn
62	Tall hedgerow comprising hawthorn and field maple
63	Field boundary hedgerow with ditch, comprising hazel, field maple, hawthorn and elm
64	Field boundary hedgerow with ditch, comprising hazel, field maple, hawthorn and elm
65	Wide, field boundary hedgerow, comprising of blackthorn
66	Wide, field boundary hedgerow, with ditch, comprising Hazel, field maple and hawthorn
67	Field boundary hedgerow, comprising blackthorn
68	Field boundary hedgerow with ditch, comprising hazel
69	Old hedgerow comprising blackthorn, field maple and hawthorn
70	Field boundary hedgerow comprising elm, field maple, dogwood and hazel
71	Field boundary hedgerow comprising field maple and hazel. Screening planting to roadside comprising ash, oak, hawthorn, blackthorn and field maple
72	Field boundary hedgerow comprising field blackthorn and hazel
73	Field boundary hedgerow comprising hawthorn, blackthorn and hazel
74	Field boundary hedgerow with ditch, comprising blackthorn
75	Remnant hedge comprising field maple
76	Property boundary hedge comprising hawthorn with some elder
77	Sparse field boundary hedge comprising elm and ash
78	Line of mature white willow trees
79	Regularly trimmed hedgerow comprising beech
80	Field boundary hedgerow comprising hawthorn and blackthorn
81	Field boundary hedgerow comprising hawthorn and elm
82	Field boundary hedgerow comprising hawthorn, alder and elm. Dutch elm disease apparent

3.27 The hedgerows identified as being relatively species-rich are generally mature and support native woody species such as Hawthorn, Blackthorn, Dog-rose,



Holly, Bramble, Goat Willow, Spindle, Dogwood, Hazel, Elm (although many specimens are dead following contracting Dutch Elm disease), Field Maple, Elder and Ash.

- 3.28 The remaining hedgerow network is dominated by a lower number of species such as Hawthorn, Blackthorn, Field Maple and Elm. There are also some occasional amenity hedgerows which border adjacent residential properties.
- 3.29 The hedgerows also support occasional standard mature trees comprising predominantly Oak and Ash.
- 3.30 Ivy tends to dominate the ground flora with other species comprising Lords-and-Ladies, Cow Parsley, Common Nettle, Wood-avens, Ground-Ivy and False-brome.
- 3.31 In terms of structure, many are subject to regular management although those either side of Paddles Lane and the southern part of Little Keyford Lane are less frequently managed and exhibit good structural diversity in places.

#### Trees

- 3.32 In addition to the aforementioned standard trees within the hedgerows, very occasional standard trees are also present within the fields and comprise mainly Ash and Oak.
- 3.33 Other groups of trees are present, mainly on northern side of A361 and comprise Ash, Oak, Field Maple, Sycamore, Willow, Hawthorn, Blackthorn and Hazel.
- 3.34 A small number of trees are mature and of veteran status and therefore offer opportunities for faunal groups such as bats.

#### Ditches

- 3.35 Ditches, some of which are wet, run along many of the hedgerows. No obvious aquatic or emergent vegetation was observed with these features being heavily overshadowed.

- 3.36 One of the ditches is flowing, being akin to a stream, and is designated as a local wildlife site (LWS) (Vinney Lane) in recognition of its invertebrate interest – as already mentioned above.

#### River Frome

- 3.37 This meandering watercourse traverses the eastern portion of the site. Alder and Crack Willow tend to dominate along its length with ruderal vegetation such as Great Willowherb, Hemlock and Common Nettle also observed. The watercourse supports a range of riverine habitats comprising riffles and pools and is of value to a range of faunal species, in particular bats and birds.

#### Buildings

- 3.38 A number of farm buildings (Sandy's Hill Farm) and a residential property (Sandy's Hill View) and associated gardens are also present within the SGV application site. A small, old and dilapidated stone former barn with no roof is also present to the northwest of Sandy's Hill Farm. Various buildings within Sandy's Hill Farm (including the dilapidated stone barn) present bat roosting opportunities. All buildings are to be demolished as part of the proposals.
- 3.39 The bat activity surveys of the buildings at Sandy's Hill Farm during June–September 2019 confirmed that the main farmhouse and adjoining barn supports a small Common Pipistrelle summer roost.
- 3.40 Some of the farm buildings are also afforded interest for their nesting bird potential.

#### Other

- 3.41 A small field in the northern part of the application site has undergone some clearance in recent times and currently represents recolonising ground. Immature Ash and Bramble scrub dominated areas prior to clearance works. Species now dominating include sapling Ash, Teasel, Broad-leaved Dock, Ribwort plantain, Nettle, Thistle and Cock's-foot. Bramble is also beginning to recolonise in areas.

- 3.42 A railway line forms part of the eastern boundary of the application site and the western boundary of the northern parcel to the proposed solar farm site. Trees and scrub along the embankment have undergone clearance works over the course of the survey visits.
- 3.43 Stands of Himalayan Balsam were observed along the northern stretch of the River Frome. This non-native and invasive species is listed on Schedule 9 of the Wildlife and Countryside Act.

### Management

- 3.44 Management of the land is split between cereal crops (maize), grassland managed for silage, hay and low intensity cattle grazing, with a small number of fields grazed by horses.
- 3.45 Approximately 85% of the improved grassland is managed as modern progressive dairy cattle farm under Sandy's Hill Farm. Only a small proportion is grazed as the majority of the milking cattle are silage fed (and milked robotically) indoors. Dry (non-milked) cattle are grazed April-December (conditions permitting) on land outside of the application site and heifers are grazed in autumn only on a small number of fields within the application site. Only one field within the application site is grazed all year round with young cattle. Some dry cows and heifers graze from the autumn period from September on a small number of other fields.
- 3.46 Many of the hedgerows are also subject to regular cutting.

### **Fauna considered to be utilising the site**

#### Bats

- 3.47 Records for Common Pipistrelle, Soprano Pipistrelle, Noctule bat, Serotine bat, Brown Long-eared bat, Brandt's bat, Whiskered bat, Daubenton's bat, Natterer's bat, Barbastelle bat, Bechstein's bat, Lesser Horseshoe bat and Greater Horseshoe bat were returned within the requested search area. All bats species of bats found in Somerset are included on the BAP.

- 3.48 As already mentioned, a population of Greater Horseshoe bats is known to be present at the nearby Mells Valley SAC located approximately 2.5km to the northwest of the site. Lesser Horseshoe (and Greater Horseshoe) bat populations are also known to be present in the local area, being associated with the Old Ironstone Mells SSSI located approximately 4km to the northwest.
- 3.49 The results of all bat survey work and assessment is detailed and evaluated separately within the Bat Survey Report.

#### Hazel Dormice

- 3.50 Populations of this protected species are known in the wider area and some hedgerows within the site were identified as providing suitable habitat on account of their species composition and structure, as shown on Plan GRE 3. Specific surveys were therefore undertaken in 2019 and continued into 2020 in order to exceed the recognised monthly score weighting system developed by Chanin & Woods (2003).
- 3.51 No considerations in relation to this protected species were identified following a review of the ecological assessments submitted alongside the neighbouring planning applications and discussions with Somerset Ecology Service's Senior Ecologist confirmed that this was the case.
- 3.52 Indeed, no evidence of this protected species was found during the surveys and it was judged that sufficient evidence had been obtained to discount presence.

#### Badgers

- 3.53 Badgers are known in the local area with an individual observed during one of the bat activity surveys (Aug-2018) crossing Little Keyford Lane in the centre of the site. In addition, two mammal holes considered to be attributed to Badger were observed to the east of Little Keyford Lane (the locations of these are not notified in the interest of maintaining animal welfare). Signs of activity were identified in 2019 although recent checks (May-2021) did not identify any obvious signs

indicating current occupation. The sett is therefore judged to be representative of an outlier sett being used on an occasional basis.

#### Amphibians (Great Crested Newts)

3.54 SERC confirmed records for Great Crested Newts to the north of Frome in excess of 3km from the site with the online NBN Atlas confirming a record located approximately 1.6km to the southwest. Accordingly, consideration to whether any nearby ponds which may present suitable breeding habitat has been given.

3.55 No ponds are located within the site. Factoring in significant barriers to amphibian dispersal (major roads and River Frome), the following ponds are known to be present within 250m, as shown on Plan GRE 4:

- two ponds shown on detailed planning application OS mapping located close to the western boundary and eastern boundaries of the main site within residential gardens (Marston Gate House and Claybatch Farm respectively): pond to the west is now infilled with permission to access the pond to the east not given, although occupants of the neighbouring property confirmed that they were not aware of any pond;
- ornamental pond within the garden of Hillview used for rearing Geese/ducks. This pond is not considered to be suitable for breeding amphibians;
- a dried up pond located approximately 475m to the east of the main site and 240m to the west of the solar farm site: this feature had dried up and was poached by horses and overshadowed by scrub/vegetation, as also reported in the adjacent David Wilson Homes planning application. As such, it was judged as being unsuitable for breeding amphibians;
- small pond located approximately 180m to the north of the site: this nearby pond was subject to eDNA analysis in April 2018 confirming *absence* of Great Crested Newts. This pond was also surveyed (both aquatic surveys involving bottle trapping, torching and eDNA survey techniques) by Crossman Associates in relation to the adjacent planning application on land east and west of Sandy's Hill and this also confirmed absence;
- two small ornamental ponds within a residential property (Selwood) reported within the adjacent David Wilson Homes planning application

(southern plot to the west of B3092) located approximately 220m to the east of the main site and 260m west of the solar farm site: the ponds were considered to be unsuitable for breeding amphibians due to their small size/depth, lack of vegetation and the presence of fish;

- other nearby ponds/lakes are known within the nearby Marston Park LWS, the nearest located approximately 250m to the south of the site. However, these ponds are known to support fish and are therefore not considered to present suitable breeding habitat for this protected species; and
- large ponds situated north adjacent to the recently built-out residential development at Southfield Farm, the nearest located approximately 480m from the solar farm site. These ponds are separated by the River Frome as well as large areas of recently constructed built development and therefore the SGV application site and solar farm site are judged to be outside of any amphibian's home-range.

3.56 Indeed, no considerations in relation to this protected species were identified following a review of the ecological assessments submitted alongside the neighbouring planning applications.

3.57 In light of the above, the likelihood of encountering Great Crested Newts within the site is judged to be very low and no further consideration is therefore given.

### Birds

3.58 Results from the specific breeding bird surveys are illustrated on Plan GRE 5. The surveys identified mainly common bird species, considered to be an assemblage typical of hedgerows and farmland on urban fringe. In terms of species of conservation concern, Dunnock, House Sparrow, Linnet, Song Thrush and Bullfinch were recorded. All were recorded in low numbers apart from some notable aggregations of House Sparrow around the buildings. A number of summer migrant species were also recorded including Swift and Swallow. Following specific checks along the River Frome no sightings or evidence of Kingfisher was found.

3.59 Records for birds have been recorded from site since Dec-2017 as part of the various survey visits. Song Thrush, Dunnock, House Sparrow, Swift, Swallow,

Chiffchaff, Blackbird, Robin, Wood Pigeon, Wren, Goldfinch, Chaffinch, Magpie, Green Woodpecker, Buzzard, Pheasant, Great Tit, Carrion Crow, Long-tailed Tit, Grey Heron, White Egret and Blue Tit were all heard and/or seen during these survey visits. In addition, a single Barn Owl was observed during one of the bat activity surveys (Aug-2018) flying southwest across the eastern part of the application site close to the B3092. Indeed, the ecological assessment accompanying the planning application on land to the east of the B3092 (land south of the Mount) reported of a Barn Owl roost (not breeding) in a nearby mature tree that side of the B3092 located approximately 280m east of the site.

- 3.60 Of the recorded species, House Sparrow, Linnet, Song Thrush and Bullfinch are all notable bird species included on the Red List in Birds of Conservation Concern 2009, published by RSPB et al. (and also identified as priority species on the UK BAP) with Barn Owl being identified on Schedule 1 of Habitats Regulations.
- 3.61 Many of the hedgerows, in particular those supporting more dense structures and more mature trees, and the River Frome provide good foraging and nesting habitat for a variety of songbirds. The adjacent fields also provide open foraging habitat for thrushes and other birds.
- 3.62 Some of the buildings support nesting opportunities for the local House Sparrow populations and open-sided farm buildings exhibit further nesting opportunities for other common species.
- 3.63 It is considered that a robust account of birds during the breeding season has been undertaken in order to understand the value of the site for breeding birds. In terms of other periods, the site is not considered to provide optimum habitat for wintering bird species, on account of its location in close proximity to existing built development/roads and intensive agricultural management of the land.

### Reptiles

- 3.64 The site supports some small areas of less frequently managed habitat considered suitable habitat for this group and specific surveys were undertaken during June–September 2019. This involved deployment of artificial refugia (0.5

x 0.5m squares of roofing felt) with seven subsequent checks undertaken during suitable weather conditions in line with best practice.

- 3.65 The specific surveys confirmed small populations of Slow-worm with some discrete parts of the site, as shown on Plan GRE 6.
- 3.66 SERC also returned records for Grass Snake within the search area and it is possible that a small population of Grass Snake is utilising the various wet ditches, hedgerows and the River Frome. Indeed, populations of this species were found in relation to one of the nearby planning applications to the north.

#### Otter and Water Vole

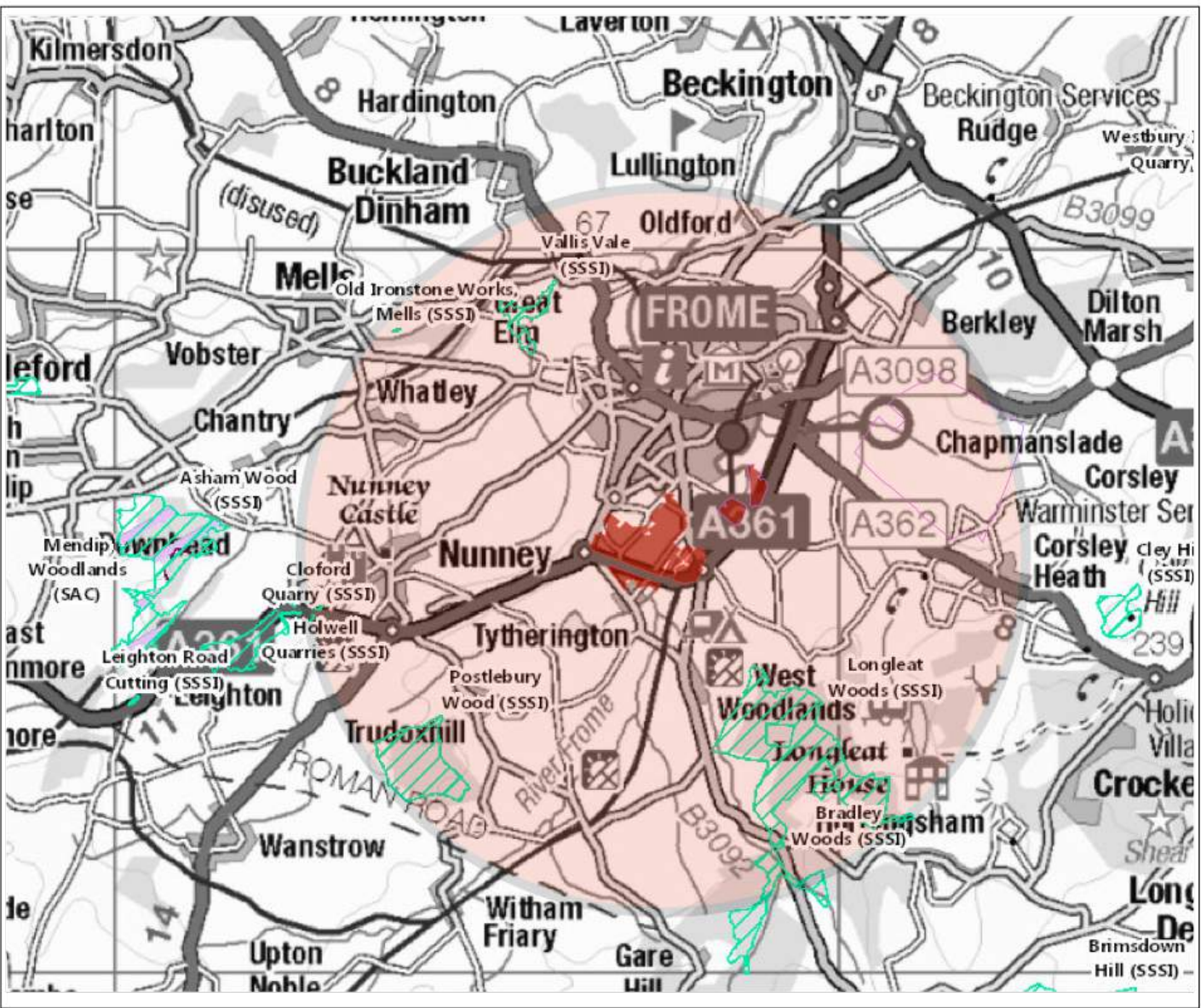
- 3.67 Both Otter and Water Vole are known along stretches of the River Frome. The watercourse is considered to offer some opportunities for Otter but is considered to be less suitable for Water Vole given the extent of the flow. Whilst no evidence of these species was found during the various survey visits, it is possible that dense vegetation along the banks of this watercourse could conceal evidence of activity. In any event, this watercourse would be retained as part of the proposals.

#### Invertebrates

- 3.68 Speckled Wood and Large White butterflies were observed along some of the hedgerows during the survey visits. These are common and widespread species. In relation to other invertebrate interest, the majority of the habitat represents intensively managed land and this is not considered to support any notable invertebrates.
- 3.69 As already mentioned, Vinney Lane LWS is located in the eastern portion of the site and is designated on account of the presence of a notable aquatic beetle. No detailed survey was considered to be required on the basis that this habitat would be retained as part of the proposals.



SELWOOD GARDEN VILLAGE  
 Plan GRE 1:  
 Statutory Designated Sites Plan



CLIENT: Land Value Alliances  
 REF: 1162  
 REV: v2  
 DATE: 24.05.2021  
 SCALE: nts



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SELWOOD GARDEN VILLAGE  
Plan GRE 2: Habitats Plan



KEY:

-  APPLICATION SITE BOUNDARY
-  SOLAR FARM APPLICATION SITE BOUNDARY
-  IMPROVED GRASSLAND
-  SEMI-IMPROVED GRASSLAND
-  ARABLE
-  GROUP OF TREES
-  HEDGEROW (WITH DITCH)
-  BUILDINGS, HARDSTANDING AND/OR GARDEN
-  LOCAL WILDLIFE SITE
-  ROADS / ACCESS
-  RIVER FROME
-  RECOLONISING GROUND
-  POND
-  TREE OFFERING BAT ROOSTING POTENTIAL

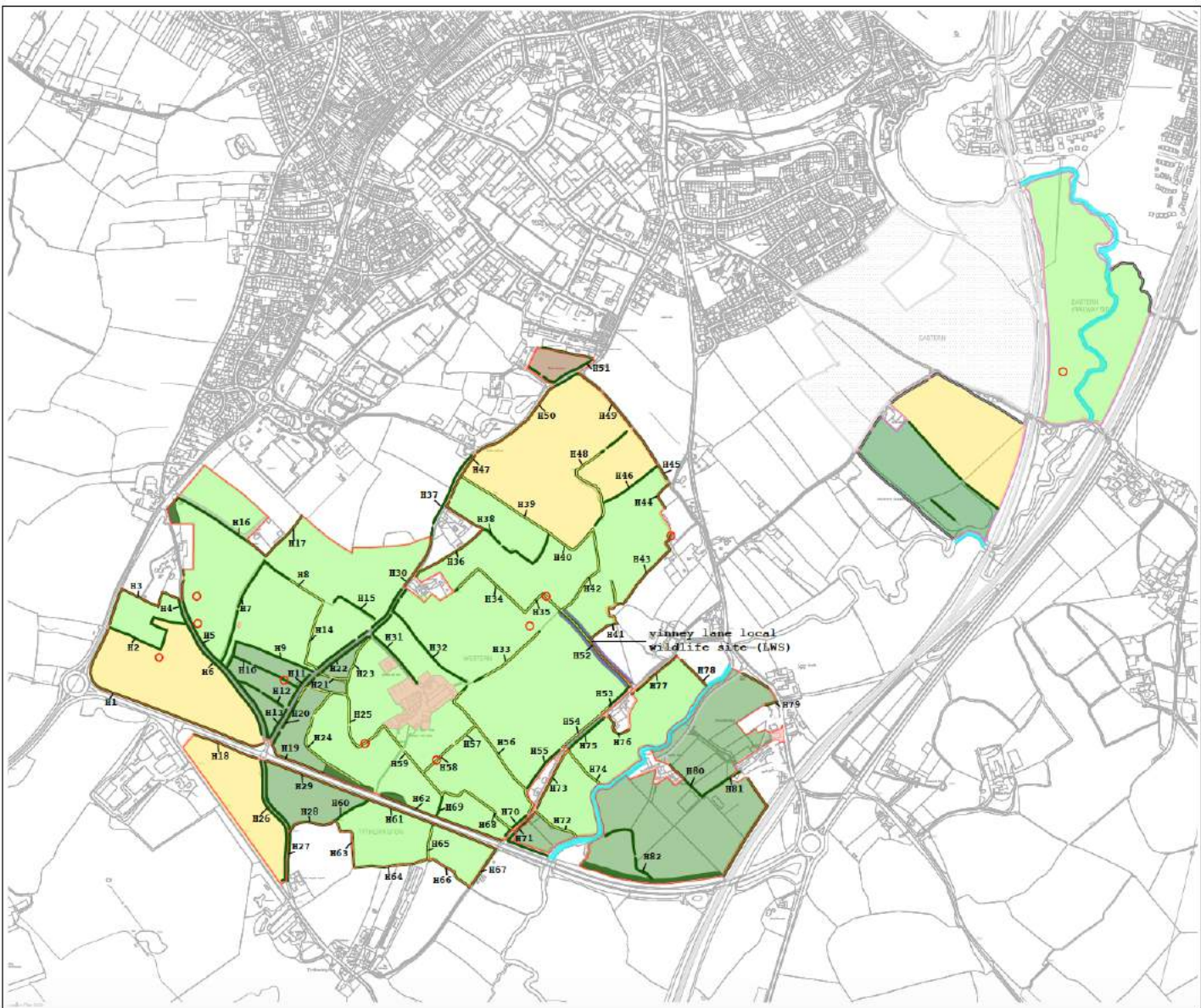
CLIENT: Land Value Alliances  
 REF: 1162  
 REV: v6  
 DATE: 13.07.2021  
 SCALE: n/s



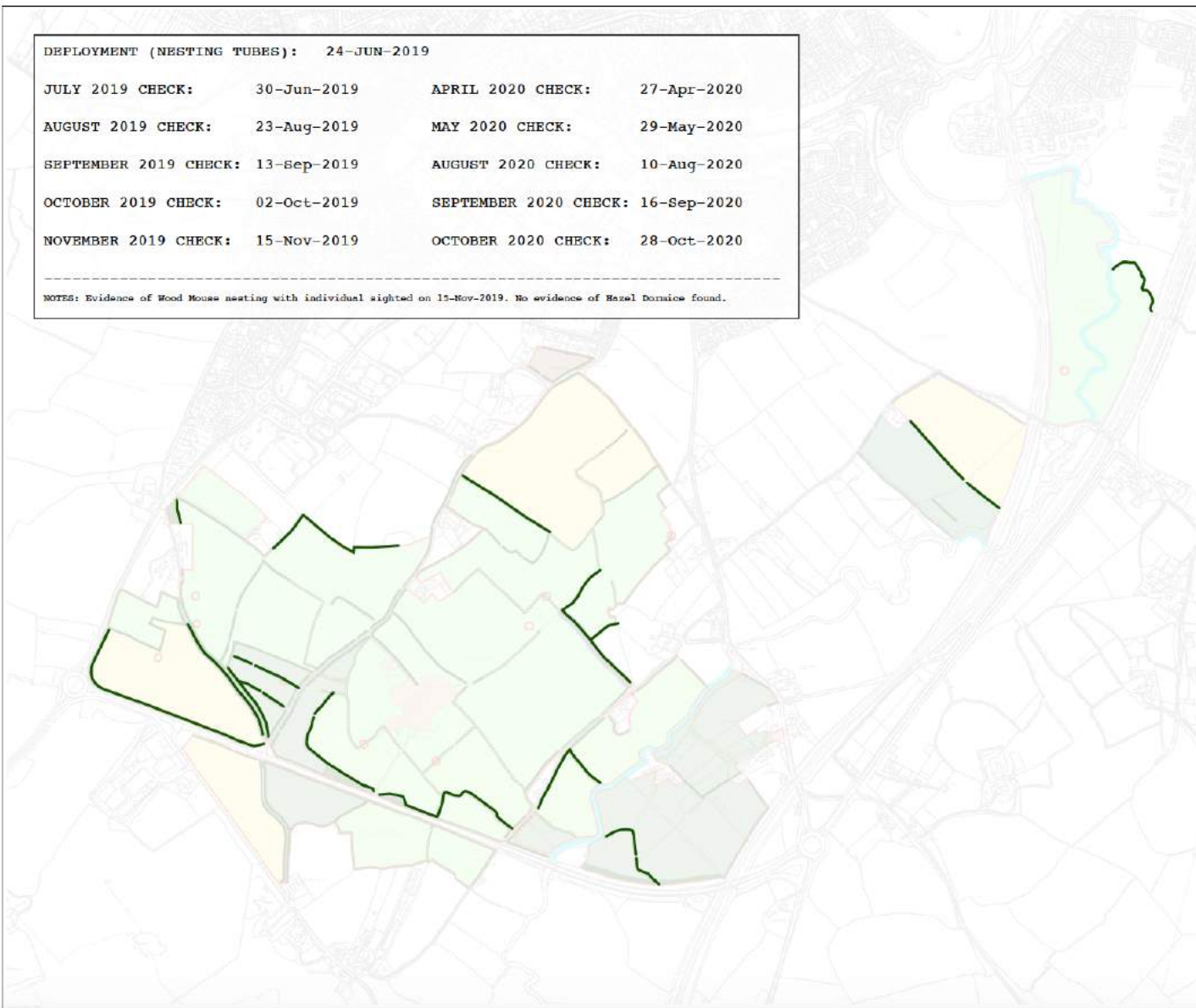
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SELWOOD GARDEN VILLAGE  
Plan GRE 3  
Hazel Dormice Survey Plan



DEPLOYMENT (NESTING TUBES): 24-JUN-2019			
JULY 2019 CHECK:	30-Jun-2019	APRIL 2020 CHECK:	27-Apr-2020
AUGUST 2019 CHECK:	23-Aug-2019	MAY 2020 CHECK:	29-May-2020
SEPTEMBER 2019 CHECK:	13-Sep-2019	AUGUST 2020 CHECK:	10-Aug-2020
OCTOBER 2019 CHECK:	02-Oct-2019	SEPTEMBER 2020 CHECK:	16-Sep-2020
NOVEMBER 2019 CHECK:	15-Nov-2019	OCTOBER 2020 CHECK:	28-Oct-2020

NOTES: Evidence of Wood Mice nesting with individual sighted on 15-Nov-2019. No evidence of Hazel Dormice found.

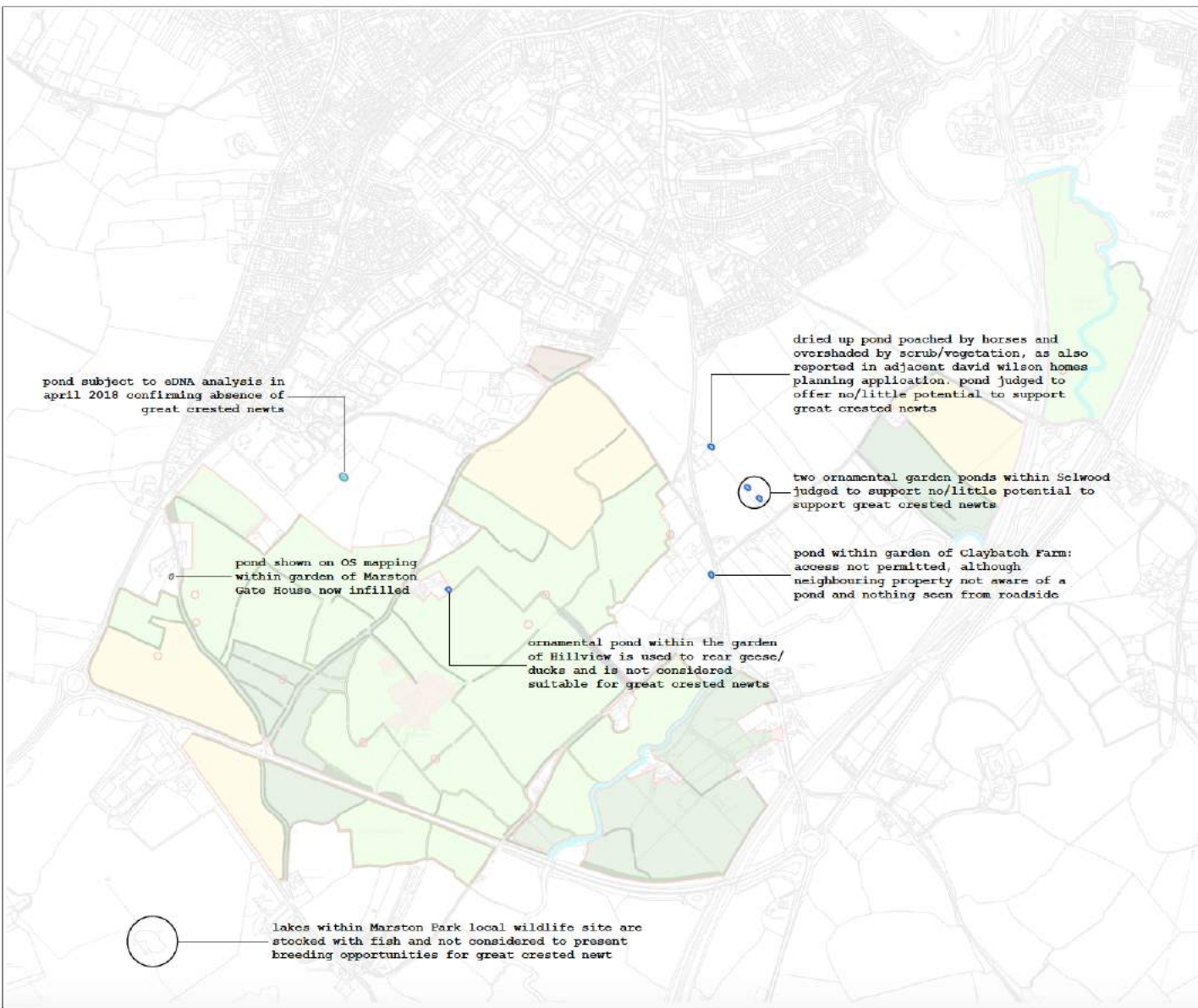
KEY:  
 HEDGEROWS SURVEYED FOR HAZEL DORMOUSE

CLIENT: Land Value Alliances  
 REF: 1162  
 REV: v3  
 DATE: 13.07.2021  
 SCALE: nls



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SELWOOD GARDEN VILLAGE  
Plan GRE 4: Pond Survey Plan



CLIENT:	Land Value Alliances
REF:	1162
REV:	v2
DATE:	13 07 2021
SCALE:	nts



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SELWOOD GARDEN VILLAGE  
Plan GRE 6: Reptile Survey Plan



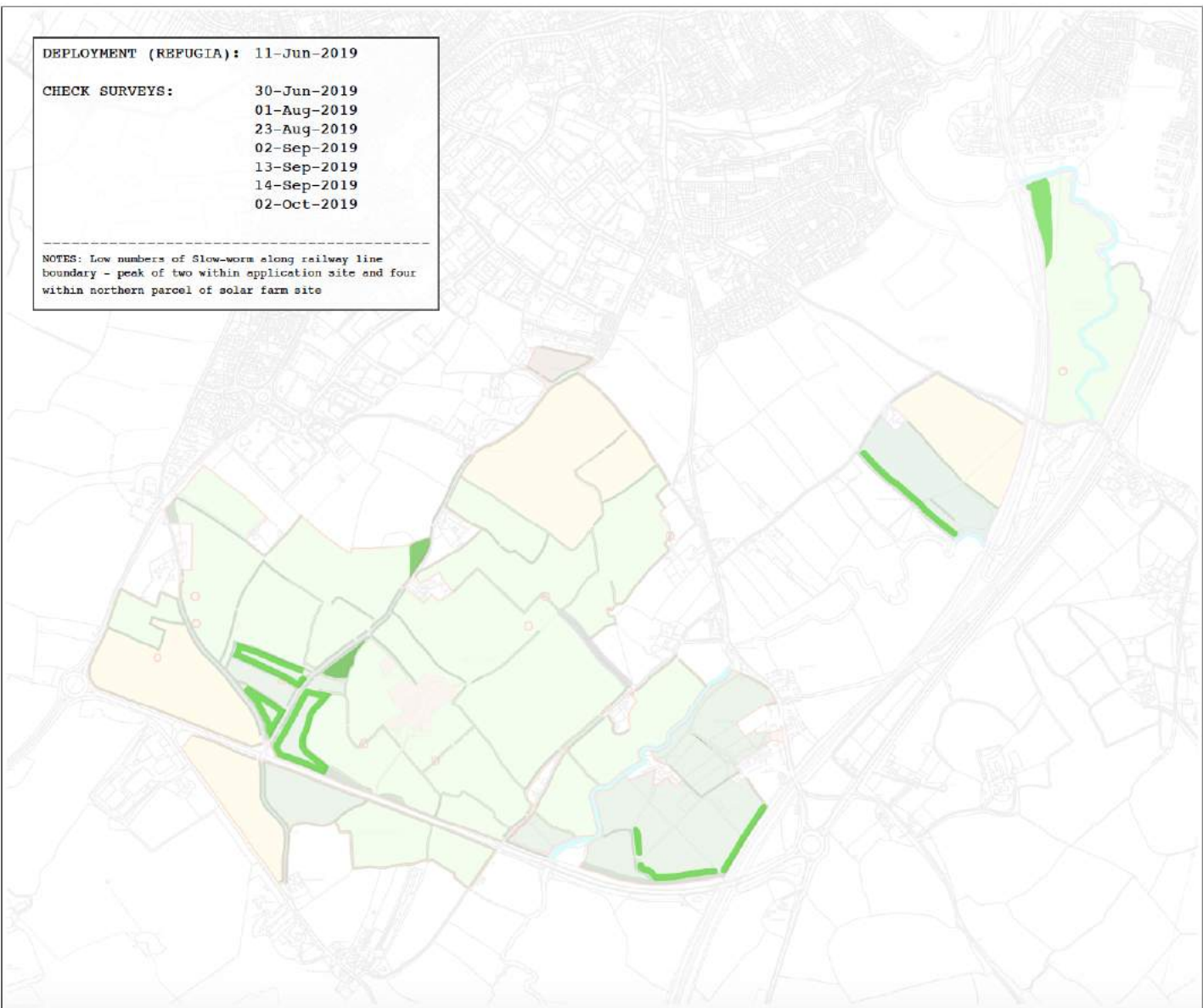
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REF: 1162  
REV: v3  
DATE: 13.07.2021  
SCALE: n/s



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Solar farm site: improved grassland (F36)



Arable: F1



River Frome (1)



River Frome (2)





River Frome (3)



Improved grassland: F2



Improved grassland: F2o (Sandy's Hill Farm in distance)



Hedgerows along Paddles Lane (F1 in distance)



Improved grassland: F7 with F6 and Sandy's Hill Farm beyond



Dilapidated building within F7



Sandy's Hill Farmhouse and adjoining barn (1)



Sandy's Hill Farmhouse and adjoining barn (2)



Sandy's Hill Farm outbuildings



Improved grassland: F19



Narrow field margins (F17)



Arable (F16)



Semi-improved grassland (F35)



Semi-improved grassland (F22)



Semi-improved grassland (F8)



Semi-improved grassland (F33)