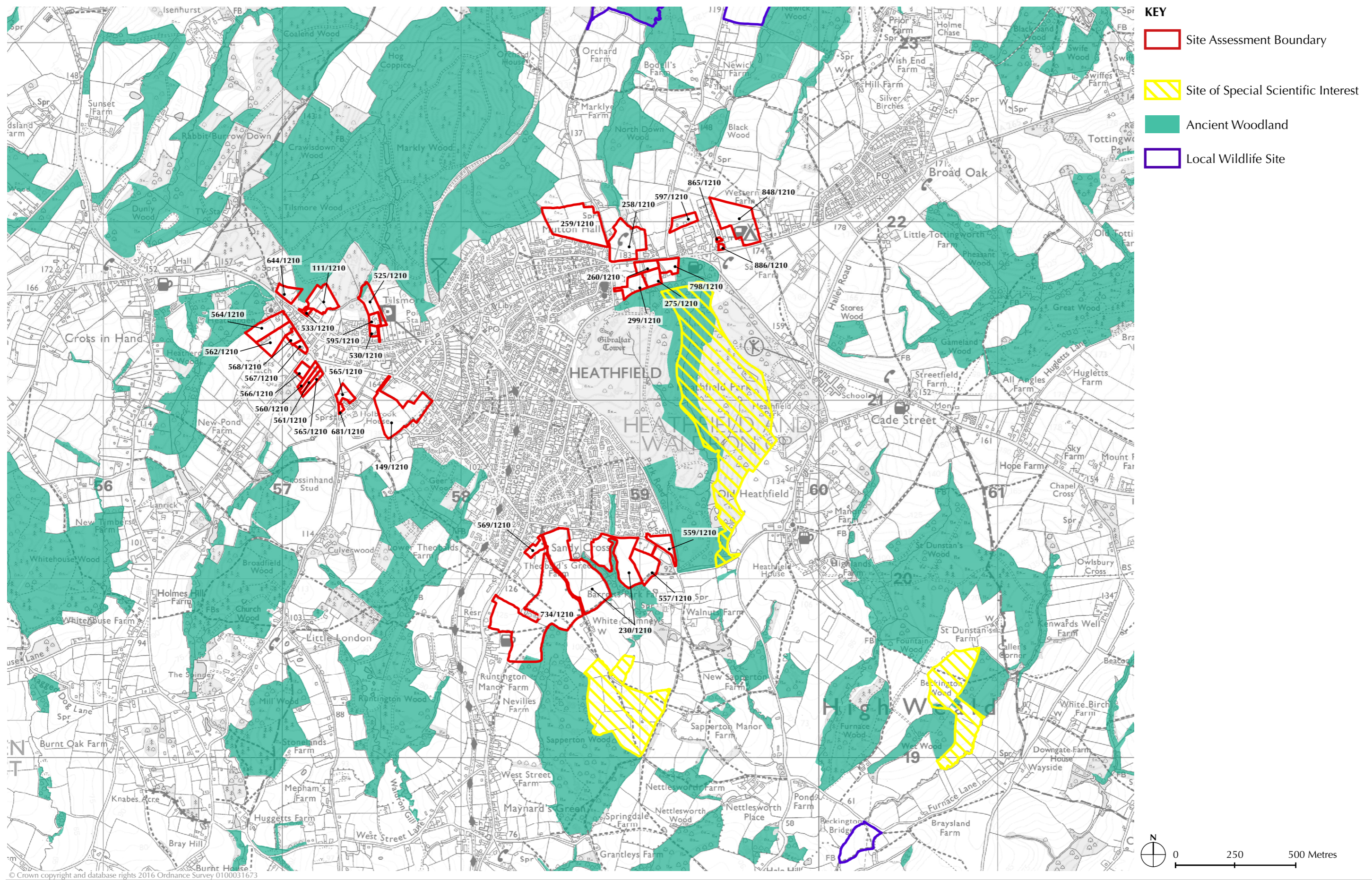


**18.0 HEATHFIELD SITES**





ECOLOGICAL ASSESSMENT	
<b>Settlement/Area:</b>	Heathfield
<b>Site Address:</b>	Tilsmore Lodge, Cross-in-Hand, Heathfield
<b>Site Reference Number:</b>	111/1210
Site Summary Description	
A 1.85ha Site comprising three small grassland and marshy grassland fields with associated hedges or tree lines and adjoining woodland. Also includes a very small wooded area and an area of tall ruderal beside the entrance. The Site adjoins Markley Wood Ancient Woodland.	
ECOLOGICAL BASELINE	
Green Infrastructure Context (see Figure 21.1)	
The Site is located within the broader High Weald landscape of small to medium sized fields, including both grassland and arable, set within a relatively extensive and intact hedgerow network which includes frequent trees. Woodland, including Ancient Woodland, is relatively plentiful and includes both large and small parcels. The Site lies on the north western edge of Heathfield, to the north of the A265, on the edge of a residential area to the south. To the north the Site adjoins is the extensive Markly Wood, which includes both Ancient Woodland and plantation.	
Desk Study: Designated Sites within 1km (see Figure 21.2)	Distance from Site
<ul style="list-style-type: none"> <li>None</li> </ul>	
Desk Study: BAP Priority Habitats within 1km	Distance from Site
<ul style="list-style-type: none"> <li>Ancient &amp; semi-natural woodland – Markley Wood</li> <li>Ancient &amp; semi-natural woodland – Coalend / Buttons / Dunley Woods</li> <li>Ancient &amp; semi-natural woodland – Heatherdean Wood</li> <li>Ancient &amp; semi-natural woodland – Holman’s Wood</li> <li>Ancient &amp; semi-natural woodland – Runtington / Crock-kiln / Geer’s Woods</li> <li>Lowland Heathland BAP priority habitat (5 areas, un-named)</li> <li>Lowland Heathland BAP priority habitat (5 areas, un-named)</li> <li>Lowland Heathland BAP priority habitat (5 areas, un-named)</li> </ul>	<ul style="list-style-type: none"> <li>Adjacent North West</li> <li>700m North West</li> <li>225m West</li> <li>790m South</li> <li>930m South East</li> <li>470m North West</li> <li>620m North</li> <li>750m North East</li> </ul>
Desk Study: Protected and Notable Species within 1km	
<b>Protected Species</b> <i>Myotis nattereri</i> Natterer’s bat <i>Pipistrellus pipistrellus</i> Common Pipistrelle (45 kHz) bat <i>Pipistrellus pygmaeus</i> Soprano pipistrelle (55kHz) bat <i>Plecotus auritus</i> Brown Long-eared bat  <b>Sussex BAP Species</b> <i>Bufo bufo</i> Common toad <i>Erinaceus europaeus</i> European hedgehog  <b>Sussex Rare Species Inventory</b> <i>Somatochlora metallica</i> Brilliant emerald	

**Notable Bird Inventory***Corvus corax*

Raven

*Phylloscopus sibilatrix*

Wood warbler

**Invasive Alien Species Inventory***Allium triquetrum*

Three-cornered garlic

*Cotoneaster horizontalis*

Wall cotoneaster

*Crocsmia pottsii* x *aurea* = *C. x crocosmiiflora*

Montbretia

*Fallopia japonica*

Japanese Knotweed

*Gaultheria shallon*

Shallon

*Harmonia axyridis*

Harlequin Ladybird

*Impatiens glandulifera*

Indian balsam

*Prunus laurocerasus*

Cherry laurel

*Rhododendron ponticum*

Rhododendron

**Field Survey: Habitat Descriptions (see Figure 21/111)**

**Poor semi-improved grassland** – The south western field comprises an unmanaged and relatively species poor grassland with a variable but moderately tall sward in the region of 10-25cm. Yorkshire fog *Holcus lanatus* and common bent *Agrostis capillaris* are the most abundant grasses, but sweet vernal grass *Anthoxanthum odoratum* meadow foxtail *Alopecurus pratensis* and small cat's tail, *Phleum bertolonii* are also present. Creeping thistle *Cirsium arvense* is frequent and nettle, broadleaved dock *Rumex obtusifolius* and common ragwort *Senecio jacobaea* are occasional. The invasive non-native Himalayan balsam *Impatiens balsamifera* is scattered through the grassland on its western side. Apart from this forb content is relatively low. Species include creeping and meadow buttercup *Ranunculus repens* and *acris*, white clover *Trifolium repens*, common sorrel *Rumex acetosa*, lesser stitchwort *Stellaria graminea*, tormentil *Potentilla erecta*, common knapweed *Centaurea nigra*, fleabane *Pulicaria dysenterica* and marsh thistle *Cirsium palustre*.

**Semi-improved neutral grassland** – A small area in the south eastern field supports a richer grassland with a number of the species present in the south western grassland, including common sorrel, lesser stitchwort, tormentil and common knapweed, present at higher frequency plus a number of additional species, including bird's foot trefoil *Lotus corniculatus*, meadow vetchling *Lathyrus pratensis*, germander speedwell *Veronica chamaedrys*, perforate St John's wort *Hypericum perforatum* and bugle *Ajuga reptans*.

**Marshy grassland** – Covers most of the northern field. This comprises abundant soft and jointed rush *Juncus effusus* and *articulatus*, frequent greater bird's foot trefoil *Lotus pedunculatus*, broadleaved willowherb *Epilobium montanum* and broadleaved dock as well as male fern *Dryopteris felix-mas*, oval sedge *Carex ovalis*, creeping buttercup *Ranunculus repens*, wild angelica *Angelica sylvestris*, tormentil, common ragwort, fleabane and marsh thistle.

**Bracken** – There are stands of bracken, in mosaic with grassland in the south western and eastern fields.

**Ruderal** – There are several stands of tall ruderal, largely nettle and docks with bramble but in an area near the entrance also including pendulous sedge *Carex pendula*, hedge bindweed *Calystegia sepium* and the invasive non-native Himalayan balsam.

An area of what appears to be recently cleared/cut scrub in the south eastern field supports developing vegetation currently comprising frequent soft and toad rushes *Juncus bufonis*, sedge (probably pendulous sedge) seedlings and as bird's foot trefoil. The eastern edge of this area includes a number of woodland species, including male fern, pendulous sedge and remote sedge *Carex remota* and enchanters nightshade *Circea lutetiana*.

**Trees and scrub** – Hedges, now largely comprising treelines of mature oak and birch, are present between the fields. Most of these trees have been numbered and ring-barked (i.e. a ring of bark removed around the full circumference of the trunk) at approximately 1-1.5m, though at the time of survey they still support abundant foliage. There is also an area of trees and scrub, including much willow, in the northern field.

**Woodland** – The western side of the Site adjoins and forms an extension of Markley Wood Ancient Woodland. It appears to be relatively species poor, with frequent oak, birch and sweet chestnut and abundant holly and frequent invasive non-native *Rhododendron*. Parallel lines of holly appear to mark

old boundaries. Much of the ground is bare but bramble is occasional.  
There is a small wooded area in the south western corner of the Site, adjoining the A265. This includes mature trees of oak and beech as well as holly, hazel, blackthorn, bramble and non-native cherry laurel.

#### Field Survey: Invasive Non-native Species

No invasive non-native species recorded within the Site.

#### Assessment of Potential for Protected and Notable Species

**Great crested newts** – There are no ponds within the Site. However, there is a pond approximately 100m east of the northern part of the Site. Most of the Site supports suitable terrestrial habitat for great crested newts.

**Reptiles** – Potential throughout unmanaged grassland, marshy grassland, ruderal and bracken.

**Breeding birds** – In woodland, trees and scrub

**Bats** – Trees and mature trees in particular, with features such as cracks and cavities, have potential to be used as roosts. Activity, including foraging and commuting, is likely throughout.

**Dormice** – High potential in woodland, and scrub due to connectivity with adjoining woodland.

**Badgers** – Potential for setts within the woodland and scrub, but with or without setts badgers may also use any or the entire Site for foraging. However, neither setts nor foraging signs are recorded during the survey.

#### Recommendations for Further Survey (and optimal survey timings)

**Amphibian (including great crested newt)** – (March – June) of the pond to the east of the Site.

**Reptiles** – (May – June, September – October) in suitable habitat throughout the Site.

**Breeding birds** – (April – June) especially woodland, trees and scrub.

**Bats** – (inspections: year round; activity surveys April – October) in the first instance inspection of trees to determine the scope for further survey and activity surveys.

**Dormice** – (April – November) in suitable habitat.

**Badgers** – (Year round but Spring / Autumn optimal) of whole site.

#### INDICATIVE ECOLOGICAL APPRAISAL

**Moderate value** – the woodland, mature trees, marshy grassland and semi-improved neutral grassland are of moderate value.

Ring-barking of a number of the mature trees has put their future at significant risk.

The Sites location, adjacent to the large Markly Wood, which includes areas of Ancient Woodland, increases its value and sensitivity.

The Sites habitats and features have high potential to support notable/protected species.

#### Impact Avoidance

In order to limit, as far as possible, potentially adverse effects of development including potential harm to the integrity of the wider green infrastructure network, effort should be made to avoid the more ecologically valuable parts of the Site by:

- Buffering the adjoining Ancient Woodland.
- Retaining and buffering the woodland.
- Retaining as many mature trees and their features as possible, subject to an assessment of their condition and safety.
- **Consider** retaining the northern field, including the marshy grassland.
- As far as possible and appropriate retaining and buffering habitats and features supporting notable/protected species, based on the results of more detailed surveys.

## Outline Mitigation

Should development at this Site proceed, generic (standard) mitigation for impacts upon habitats and species is set out below. Further detailed or species-specific mitigation may be required dependent upon the outcome of the recommended protected habitat or species surveys.

- Implementation of a Construction and Environmental Management Plan (CEMP) to manage site-specific issues relating to the potential impacts of construction on ecological features of interest;
- Timing of vegetation clearance works to avoid the bird breeding season (March – August inclusive);
- Offset buffers to protect retained habitats (minimum 10m);
- Use of protective fencing to define construction areas and protect retained habitats;
- Avoidance of night-time working wherever possible. When not possible, use directional lighting to prevent lightshed into surrounding habitats;
- Inclusion of mammal ladders or similar in any trenches left open overnight;
- Sealing of pipework overnight, to prevent animals becoming trapped;
- Defined and bunded areas for fuel storage and refuelling to prevent spillages and pollution incidents;
- On-Site spill incident equipment, in the event of spillages of fuel or other materials. Specific measures will be required if any works are close to watercourses and/or waterbodies.
- If great crested newts are found to be present in the pond to the east of the Site then measures should be put in place to prevent harming or killing them, including for example the erection of herptile fencing to exclude them from work areas, and possibly trapping and translocation to suitable receptor areas elsewhere.
- If reptiles are found to be present, measures to prevent harm to them, including potentially translocation from the development Site to a suitable receptor site. Where feasible such receptor areas should be incorporated into the new development (for example in buffer strips beside retained hedges, as noted above).
- New development may need to incorporate bat roosts as alternative or replacement habitat if roosts are likely to be lost.
- Insofar as any proposed development of the Site allows, lighting design, particularly for the periphery of the Site should be minimised as far as possible. As a minimum, any lighting along Site boundaries that may potentially form important commuting corridors (e.g. hedgerows) or adjacent woodlands that may support bat roosts should make use of backboards and/or internal louvres to ensure light is directed into the Site and light spill into the adjacent areas of retained habitat is minimised.
- If dormice are found to be present, retention and appropriate buffering of woodland (as noted above) would need to be incorporated into the Scheme design in order to retain their habitat.
- Development should avoid construction works within at least 30m of the nearest badger setts and seek to avoid prime foraging grounds identified through the badger survey and severance of commuting corridors within territories.

## Potential Enhancement Opportunities

Opportunities for enhancing, restoring and/or creating new habitats as an integral part of a Site's development that can also contribute to the District's wider ecological /green infrastructure network are identified below:

- Positively and appropriately manage retained habitats and features, including woodland, mature trees and marshy grassland.
- Habitat creation, ideally located adjacent to retained or adjoining habitat, for example a field corner, or to form habitat corridors or links. To include for example:
  - Wildlife pond(s), included for example as part of a SuDS scheme;
  - Species-rich grassland and associated features for supporting a variety of terrestrial invertebrates;
  - Scrub and trees; and
  - Creation of dead wood habitats and other habitat piles.

- Erection of bat boxes suitable for a range of bat species, on retained trees or incorporated into buildings where they will remain unlit.
- Erection of bird boxes suitable for a range of bird species on retained trees or incorporated into buildings.
- Incorporate features to SuDS scheme(s), such as the use of native wetland plant species, to enhance their value.



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ECOLOGICAL ASSESSMENT																													
<b>Settlement Area:</b>	Heathfield																												
<b>Site Address:</b>	Land South West of Ghyll Road, Heathfield																												
<b>Site Reference Number:</b>	149/1210																												
Site Summary Description																													
<p>A 4.49ha Site comprising three unmanaged grassland fields of variable species richness. The two south western fields appear to have been unmanaged for some time and as a result scrub, especially large stands of bramble and young oaks, is widespread. The fields are enclosed within species rich hedges, which include number of mature trees, especially oaks. A number of mature trees, one or two with veteran characters, also stand among the fields. A strip in the north of the Site, to which there was very limited access, comprises dense scrub with mature trees.</p>																													
ECOLOGICAL BASELINE																													
Green Infrastructure Context (see Figure 21.1)																													
<p>The Site is located within a characteristic High Weald landscape of small to medium sized fields, including both grass and arable, set within a relatively extensive and intact hedgerow network which includes frequent trees. Woodland, including Ancient Woodland, is relatively plentiful, the majority of which are relatively large in size. The Site lies on the western side of Heathfield, between Ghyll Road and Pook Reed Lane. To the north, east and south east are residential areas of Heathfield. To the south west is a group of residential properties, often with quite large gardens. Beyond the A267 is open country of fields with hedges and woodland.</p>																													
Desk Study : Designated Sites within 1km (See Figure 21.2)	Distance from Site																												
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Desk Study: Protected and Notable Species within 1km																													
<table> <tr> <th>Protected Species</th><th></th></tr> <tr> <td><i>Anguis fragilis</i></td><td>Slow worm</td></tr> <tr> <td><i>Hirudo medicinalis</i></td><td>Medicinal leech</td></tr> <tr> <td><i>Muscardinus avellanarius</i></td><td>Hazel dormouse</td></tr> <tr> <td><i>Myotis nattereri</i></td><td>Natterer’s bat</td></tr> <tr> <td><i>Natrix natrix</i></td><td>Grass snake</td></tr> <tr> <td><i>Nyctalus noctula</i></td><td>Noctule bat</td></tr> <tr> <td><i>Pipistrellus pipistrellus</i></td><td>Common Pipistrelle (45 kHz) bat</td></tr> <tr> <td><i>Pipistrellus pygmaeus</i></td><td>Soprano pipistrelle (55kHz) bat</td></tr> <tr> <td><i>Pipistrellus</i> sp.</td><td>Pipistrelle sp. bat</td></tr> <tr> <td><i>Plecotus auritus</i></td><td>Brown Long-eared bat</td></tr> <tr> <td><i>Triturus cristatus</i></td><td>Great crested newt</td></tr> <tr> <td><i>Vipera berus</i></td><td>Adder</td></tr> <tr> <td><i>Zootoca vivipara</i></td><td>Common lizard</td></tr> </table>		Protected Species		<i>Anguis fragilis</i>	Slow worm	<i>Hirudo medicinalis</i>	Medicinal leech	<i>Muscardinus avellanarius</i>	Hazel dormouse	<i>Myotis nattereri</i>	Natterer’s bat	<i>Natrix natrix</i>	Grass snake	<i>Nyctalus noctula</i>	Noctule bat	<i>Pipistrellus pipistrellus</i>	Common Pipistrelle (45 kHz) bat	<i>Pipistrellus pygmaeus</i>	Soprano pipistrelle (55kHz) bat	<i>Pipistrellus</i> sp.	Pipistrelle sp. bat	<i>Plecotus auritus</i>	Brown Long-eared bat	<i>Triturus cristatus</i>	Great crested newt	<i>Vipera berus</i>	Adder	<i>Zootoca vivipara</i>	Common lizard
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**Sussex BAP Species**

*Acronicta rumicis*  
*Agrochola lychnidis*  
*Allophyes oxyacanthae*  
*Amphipyra tragopoginis*  
*Apamea remissa*  
*Asteroscopus sphinx*  
*Brachylomia viminalis*  
*Bufo bufo*  
*Ecliptopera silaceata*  
*Ennomos fuscantaria*  
*Erinaceus europaeus*  
*Erynnis tages*  
*Eugnorisma glareosa*  
*Hemistola chrysoprasaria*  
*Lasiommata megera*  
*Hydraecia micacea*  
*Limenitis camilla*  
*Lycia hirtaria*  
*Melanchra persicariae*  
*Mesoligia literosa*  
*Spilosoma lubricipeda*  
*Spilosoma luteum*  
*Tholera decimalis*  
*Timandra comae*  
*Tyria jacobaeae*  
*Watsonalla binaria*  
*Xanthia icteritia*

Knot Grass (moth)  
 Beaded Chestnut (moth)  
 Green-brindled Crescent (moth)  
 Mouse Moth (moth)  
 Dusky Brocade (moth)  
 Sprawler (moth)  
 Minor Shoulder-knot (moth)  
 Common toad  
 Small Phoenix (moth)  
 Dusky Thorn (moth)  
 European hedgehog  
 Dingy Skipper  
 Autumnal Rustic (moth)  
 Small Emerald (moth)  
 Wall  
 Rosy Rustic (moth)  
 White admiral  
 Brindled Beauty (moth)  
 Dot moth (moth)  
 Rosy Minor (moth)  
 White Ermine (moth)  
 Buff Ermine (moth)  
 Feathered Gothic (moth)  
 Blood-Vein (moth)  
 Cinnabar (moth)  
 Oak Hook-tip (moth)  
 Sallow (moth)

**Sussex Rare Species Inventory**

*Archanara sparganii*  
*Calamotropha paludella*  
*Chloroclysta siterata*  
*Eilema sororcula*  
*Furcula bicuspis*  
*Globia sparganii*  
*Hadena compta*  
*Mythimna l-album*  
*Parascotia fuliginaria*  
*Selenia lunularia*  
*Somatochlora metallica*  
*Tetheella fluctuosa*  
*Thera cypressata*

Webb's Wainscot (moth)  
 Bulrush veneer (moth)  
 Red-green Carpet (moth)  
 Orange Footman (moth)  
 Alder Kitten (moth)  
 Webb's Wainscot (moth)  
 Varied Coronet (moth)  
 L-album Wainscot (moth)  
 Waved Black (moth)  
 Lunar Thorn (moth)  
 Brilliant emerald  
 Satin Lutestring (moth)  
 Cypress carpet (moth)

**Notable Bird Inventory**

*Ardea cinerea*  
*Milvus milvus*  
*Poecile Montana*

Grey heron  
 Red kite  
 Willow tit

**Invasive Alien Species Inventory**

*Allium triquetrum*  
*Cotoneaster horizontalis*  
*Crocasmia pottsii* x *aurea* = *C. x crocosmiiflora*  
*Fallopia japonica*  
*Gaultheria shallon*  
*Harmonia axyridis*

Three-cornered garlic  
 Wall cotoneaster  
 Montbretia  
 Japanese Knotweed  
 Shallon  
 Harlequin Ladybird

<i>Impatiens glandulifera</i>	Indian balsam
<i>Prunus laurocerasus</i>	Cherry laurel
<i>Rhododendron ponticum</i>	Rhododendron
<b>Field Survey: Habitat Descriptions (See Figure 21/149)</b>	
<p><b>Semi-improved neutral grassland</b> – Although unmanaged and comprising a rather tall and tussocky sward the most southerly field is the richest. Yorkshire fog <i>Holcus lanatus</i> and common bent <i>Agrostis capillaris</i> are the most abundant grasses, but red fescue <i>Festuca rubra</i>, sweet vernal grass <i>Anthoxanthum odoratum</i> and cocksfoot <i>Dactylis glomerata</i> are also frequent. Forb content is moderate, approximately 40%, and includes frequent birds foot trefoils <i>Lotus</i> spp., lesser stitchwort <i>Stellaria graminea</i>, common sorrel <i>Rumex acetosa</i>, ribwort plantain, <i>Plantago lanceolata</i> and common knapweed <i>Centaurea nigra</i> as well as occasional creeping and meadow buttercup <i>Ranunculus repens</i> and <i>acris</i>, tufted vetch <i>Vicia cracca</i>, meadow vetchling <i>Lathyrus pratensis</i>, smooth tare <i>Vicia tetrasperma</i>, red clover <i>Trifolium pratense</i>, hogweed <i>Heracleum sphondylium</i>, cinquefoil <i>Potentilla reptans</i> and germander speedwell <i>Veronica chamaedrys</i>.</p> <p><b>Poor semi-improved grassland</b> – The north western field is very similar to the southern field, though a little less rich.</p> <p><b>Improved grassland</b> – The north eastern field is very species poor. Yorkshire fog and common bent are the abundant species, with red fescue and cocksfoot occurring frequently. Forb content is very low, less than 5%, and consists of occasional meadow buttercup and common sorrel.</p> <p><b>Tall ruderal</b> – patches of nettle and similar on field edges and among scrub.</p> <p><b>Hedges</b> – Species rich, including hawthorn, blackthorn, holly, hazel, willows, ash, oak and sycamore. Many sections also include trees, including mature trees, especially oaks, but also sycamore, for example on the southern boundary of the southern field. On the southern boundary of the north eastern field there is what appears to be a planted hedge of more recent origin, between the PRoW and the field.</p> <p><b>Trees and scrub</b> – In addition to the trees in the hedges a number of mature trees are present within the fields. For example, there is a single stag-headed mature oak with veteran characteristics in the most southerly field (TN1) and a line of mature oaks in the north western field.</p> <p>There are extensive stands of bramble around the fringes of the north western and southern fields, which is punctuated by young oaks and willows as well as stands of bracken. Young oaks and willows are also scattered through the grassland in these two fields.</p> <p>The northern strip of the Site, running south west from Ghyll Road supports dense scrub, comprising stands of bramble as well as shrubs and trees, including mature specimens. This part of the Site could not be surveyed in detail as much of it is inaccessible.</p>	
<b>Field Survey: Protected and Notable Species</b>	
No species considered notable for their nature conservation value recorded during the Phase I habitat field survey.	
<b>Field Survey: Invasive Non-native Species</b>	
Cherry laurel in the northern tip of the Site, beside Ghyll Road (TN2).	
<b>Assessment of Potential for Protected and Notable Species</b>	
<p><b>Great crested newts</b> – There are no ponds within the Site. However, OS maps and aerial images indicate the presence of ponds to the west of the Site, near Holbrook House, approximately 130m from the Site, and beyond the A267, approximately 350m distant, although the A267 would represent a significant barrier to dispersal from this pond. Most of the Site, excluding perhaps the centre of the north eastern field represents suitable habitat for great crested newts.</p> <p><b>Reptiles</b> – High potential more or less throughout.</p> <p><b>Breeding birds</b> – In hedges, trees and scrub.</p> <p><b>Bats</b> – Trees and mature trees in particular, with features such as cracks and cavities, have potential to be used as roosts. Activity, including foraging and commuting, is likely throughout.</p>	

**Dormice** – moderate to high potential in hedges and scrub, due to available habitat and connectivity to habitats, including hedges and woodland, especially to the south.  
**Badgers** – Potential for setts within hedges and scrub, but with or without setts badgers may also use any part of the Site for foraging, though neither was recorded during the survey.

#### Recommendations for Further Survey (and optimal survey timings)

**Botanical** – (May – June) – of the southern field.  
**Amphibian (including great crested newt)** – (March – June) of the pond near Holbrook House to the west of the Site.  
**Reptiles** – (May – June, September – October) in suitable habitat throughout the Site.  
**Breeding birds** – (April – June) especially hedges, scrub and trees.  
**Bats** – (inspections: year round; activity surveys April – October) in the first instance inspection of trees to determine the scope for further survey and activity surveys.  
**Dormice** – (April – November) in suitable habitat.  
**Badgers** – (Year round but Spring / Autumn optimal) of whole site.

#### INDICATIVE ECOLOGICAL APPRAISAL

**Moderate to High value** – includes grassland which retains some diversity and hedges and trees of at least moderate value. The grassland in the north east field is of low value.  
The Sites habitats and features have high potential to support notable/protected species.

#### Impact Avoidance

In order to limit, as far as possible, potentially adverse effects of development including potential harm to the integrity of the wider green infrastructure network, effort should be made to avoid the more ecologically valuable parts of the Site by:

- Retaining and buffering hedgerows and mature trees and their features.
- Consider retaining the grassland in the southern field.
- As far as possible and appropriate retaining and buffering habitats and features supporting notable/protected species, based on the results of more detailed surveys.

#### Outline Mitigation

Should development at this Site proceed, generic (standard) mitigation for impacts upon habitats and species is set out below. Further detailed or species-specific mitigation may be required dependent upon the outcome of the recommended protected habitat or species surveys.

Construction Mitigation:

- Implementation of a Construction and Environmental Management Plan (CEMP) to manage site-specific issues relating to the potential impacts of construction on ecological features of interest.
- Timing of vegetation clearance works to avoid the bird breeding season (March – August inclusive).
- Offset buffers to protect retained habitats (minimum 10m).
- Use of protective fencing to define construction areas and protect retained habitats.
- Avoidance of night-time working wherever possible. When not possible, use directional lighting to prevent lightshed into surrounding habitats.
- Inclusion of mammal ladders or similar in any trenches left open overnight.
- Sealing of pipework overnight, to prevent animals becoming trapped.
- Defined and bunded areas for fuel storage and refuelling to prevent spillages and pollution incidents.
- On-Site spill incident equipment, in the event of spillages of fuel or other materials. Specific

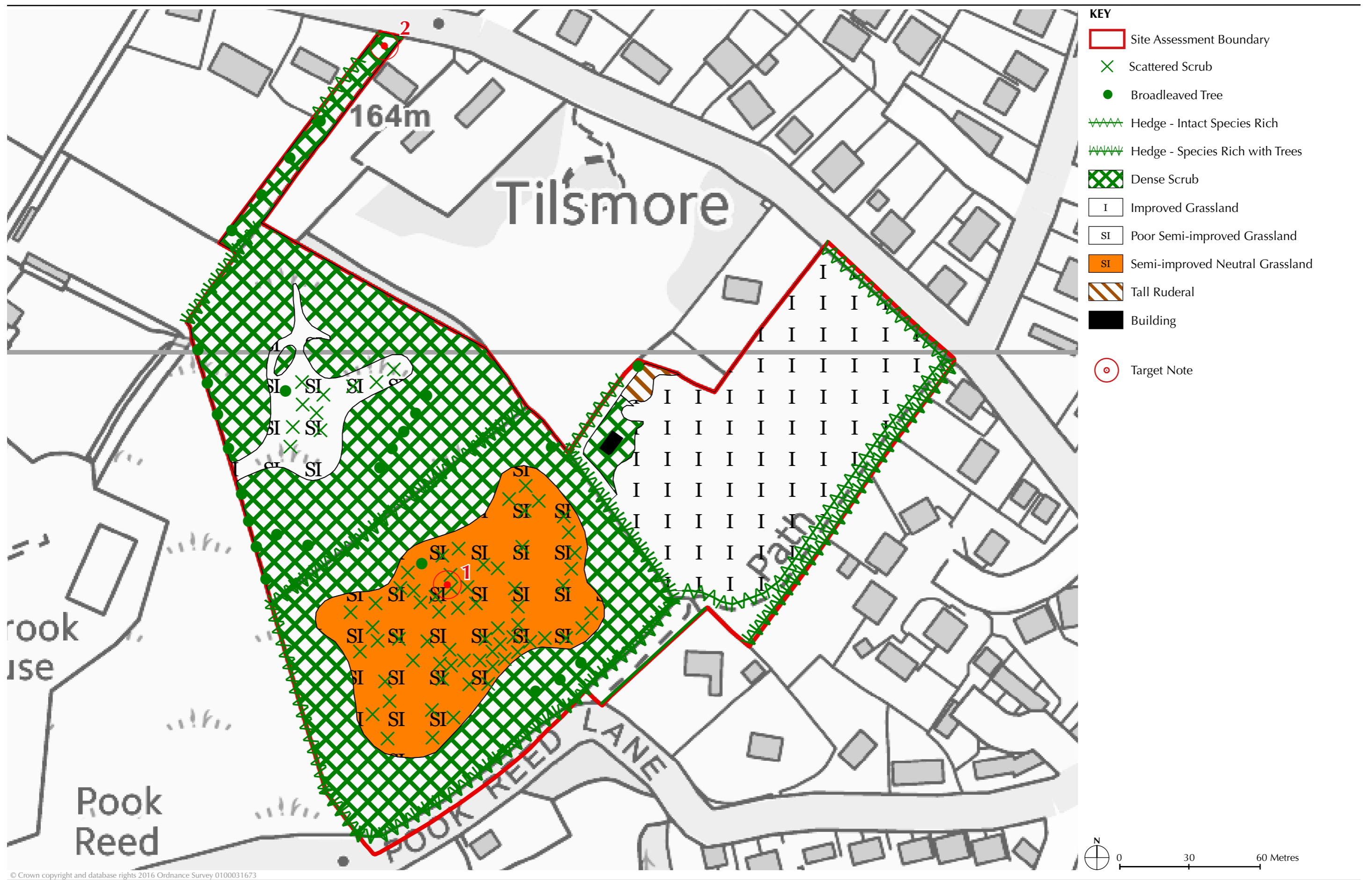
measures will be required if any works are close to watercourses and/or waterbodies.

- If great crested newts are found to be present in the pond to the west of the Site then measures should be put in place to prevent harming or killing them, including for example the erection of herptile fencing to exclude them from work areas, and possibly trapping and translocation to suitable receptor areas elsewhere.
- If reptiles are found to be present, measures to prevent harm to them, including potentially translocation from the development Site to a suitable receptor site may need to be considered. Where feasible such receptor areas should be incorporated into the new development (for example in buffer strips beside retained hedges).
- New development may need to incorporate bat roosts as alternative or replacement habitat if roosts are likely to be lost.
- Insofar as any proposed development of the Site allows, lighting design, particularly for the periphery of the Site should be minimised as far as possible. As a minimum, any lighting along Site boundaries that may potentially form important commuting corridors (e.g. hedgerows) or adjacent woodlands that may support bat roosts should make use of backboards and/or internal louvres to ensure light is directed into the Site and light spill into the adjacent areas of retained habitat is minimised.
- If dormice are found to be present the retention and appropriate buffering of hedges (as noted above).
- Development should avoid construction works within at least 30m of the nearest badger setts and seek to avoid prime foraging grounds identified through the badger survey and severance of commuting corridors within territories.

### Potential Enhancement Opportunities

Opportunities for enhancing, restoring and/or creating new habitats as an integral part of a Site's development that can also contribute to the District's wider ecological /green infrastructure network are identified below:

- Positively and appropriately manage retained habitats and features, including hedges, mature trees and grassland.
- Strengthen boundary vegetation by planting appropriate native species to form hedges, for example on the western boundary of the north western field and adjoining residential property on the northern boundary of the north eastern field.
- Habitat creation, ideally located adjacent to retained or adjoining habitat, for example in field corners, or to form habitat corridors or links. To include for example:
  - Wildlife pond(s), included for example as part of a SuDS scheme;
  - Species-rich grassland and associated features for supporting a variety of terrestrial invertebrates;
  - Scrub and trees; and
  - Creation of dead wood habitats and other habitat piles.
- Erection of bat boxes suitable for a range of bat species, on retained trees or incorporated into buildings where they will remain unlit.
- Erection of bird boxes suitable for a range of bird species on retained trees or incorporated into buildings.
- Incorporate features to SuDS scheme(s), such as the use of native wetland plant species, to enhance their value.



ECOLOGICAL ASSESSMENT	
<b>Settlement/Area:</b>	Heathfield
<b>Site Address:</b>	Land south of Sandy Cross Lane, Heathfield
<b>Site Reference Number:</b>	230/1210
Site Summary Description	
A large 12ha Site in two parts comprising several species poor grassland fields and an area of marshy grassland enclosed within species rich hedges, some of which include mature trees. There is also a small pond.	
ECOLOGICAL BASELINE	
Green Infrastructure Context (see Figure 21.1)	
The Site is located within a characteristic High Weald landscape of small to medium sized fields, including both grass and arable, set within a relatively extensive and intact hedgerow network which includes frequent trees. Woodland, including Ancient Woodland, is relatively plentiful, the majority of which are relatively large in size. The Site lies on the southern edge of Heathfield, south of Sandy Cross Lane. To the north are residential areas of Heathfield and to the south is open country of fields with hedges and woodland. The Site adjoins Ham Wood and Barret's Park Wood Ancient Woodland.	
Desk Study : Designated Sites within 1km (See Figure 21.2)	Distance from Site
<ul style="list-style-type: none"> <li>The Site lies approximately 450m west of the nearest point of <b>Heathfield Park SSSI</b>. The Citation states: <i>'This Site is an example of ancient Wealden Gill woodland formed by the vigorous downcutting of a stream into the Ashdown Sand series of the Hastings Beds. A number of 'Atlantic' plants, uncommon in the south-east, are present and the lichen flora is also notable ... The woodland is dominated by mature beech Fagus sylvatica with both pedunculate and sessile oak Quercus robur and Q. petraea, holly Ilex aquifolium and scattered yew Taxus baccata. In the north and east birch Betula spp. becomes frequent and the stream valleys contain willow Salix spp. and alder Alnus glutinosa ... Continuous woodland cover in this sheltered Gill provides a moist, mild microclimate and a number of plant species occur here which are otherwise restricted to western counties, including Cornish moneywort Sibthorpia europaea, hay-scented buckler-fern Dryopteris aemula and the liverwort Frullania tamarisci. The Site is also of county importance for lichens: a total of 76 species have been recorded here ... The lakes add to the value of the Site for dragonflies and birds.'</i></li> <li>The Site lies approximately 270m north of the nearest point of <b>Sapperton Meadows SSSI</b>. The Citation states: <i>'The Site consists of a number of pastures and meadows separated by a well developed network of hedgerows, and bordered on the south-west by mixed woodland. The fields form what is one of the best examples of contrasting rich pastures and hay meadows in East Sussex which is still being managed by traditional techniques ... The fields ... vary widely in grazing pressure [which] result in a mosaic of plant communities. Overall the flora is extremely species-rich and diverse, particularly in broad-leaved species. Characteristic species present include dyer's greenweed Genista tinctoria, lesser spearwort Ranunculus flammula, fleabane Pulicaria dysenterica, and a variety of sedges. In general the grassland is dominated by common bent grass Agrostis capillaris, along with Yorkshire fog Holcus lanatus, bird's foot trefoil Lotus corniculatus, daisy Bellis</i></li> </ul>	<ul style="list-style-type: none"> <li>450m East of the Site.</li> <li>270m South of the Site.</li> </ul>

<p><i>perennis</i>, self-heal <i>Prunella vulgaris</i>, red clover <i>Trifolium pratense</i>, and ribwort plantain <i>Plantago lanceolata</i>. The grazed fields are characterised by lesser knapweed <i>Centaurea nigra</i>, bird's foot trefoil, hairy hawkbit <i>Leontodon taraxacoides</i>, yellow rattle <i>Rhinanthus minor</i>, dyer's greenweed, fleabane, sharp-flowered rush <i>Juncus acutifolius</i>, common spotted orchid <i>Dactylorhiza fuchsii</i> and cat's ear <i>Hypochaeris radicata</i> ... Characteristic plants of the hay fields include Yorkshire fog, lesser knapweed and yellow-rattle, with common bent grass, sweet vernal grass <i>Anthoxanthum odoratum</i>, sneezewort <i>Achillea ptarmica</i>, and hairy hawkbit. Carnation sedge <i>Carex panicea</i>, glaucous sedge <i>C. flacca</i>, oval sedge <i>Carex ovalis</i> and lesser spearwort occur in flushed patches.'</p>																																																					
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<ul style="list-style-type: none"> <li>• Ancient &amp; semi-natural woodland – Ham Wood</li> <li>• Ancient &amp; semi-natural woodland – Monkhurst Farm Shaw</li> <li>• Ancient &amp; semi-natural woodland – Runtington / Crock-kiln / Geer's Woods</li> <li>• Ancient &amp; semi-natural woodland – Sapperton Wood</li> <li>• Ancient &amp; semi-natural woodland – Walnuts Farm Shaw</li> <li>• Ancient &amp; semi-natural woodland – Mill Wood</li> <li>• Ancient &amp; semi-natural woodland – Sapperton Manor Farm Shaw</li> <li>• Ancient &amp; semi-natural woodland – Heathfield Park</li> <li>• Lowland Meadows BAP priority habitat (part of Sapperton Meadows SSSI)</li> <li>• Wood Pasture &amp; Parkland BAP priority habitat (part of Heathfield Park SSSI)</li> </ul>	<ul style="list-style-type: none"> <li>• Adjacent E, W, S</li> <li>• 50m North</li> <li>• 470m West</li> <li>• 180m South West</li> <li>• 450m South East</li> <li>• 750m South East</li> <li>• 760m South East</li> <li>• 240m East</li> <li>• 270m South</li> <li>• 580m East</li> </ul>																																																				
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<i>Hoplodrina blanda</i>	Rustic (moth)
<i>Lasiommata megera</i>	Wall
<i>Hydraecia micacea</i>	Rosy Rustic (moth)
<i>Limenitis camilla</i>	White admiral
<i>Lycia hirtaria</i>	Brindled Beauty (moth)
<i>Melanchra persicariae</i>	Dot moth (moth)
<i>Mesoligia literosa</i>	Rosy Minor (moth)
<i>Mythimna comma</i>	Shoulder-striped Wainscot (moth)
<i>Spilosoma lubricipeda</i>	White Ermine (moth)
<i>Spilosoma luteum</i>	Buff Ermine (moth)
<i>Tholera decimalis</i>	Feathered Gothic (moth)
<i>Timandra comae</i>	Blood-Vein (moth)
<i>Tyria jacobaeae</i>	Cinnabar (moth)
<i>Watsonalla binaria</i>	Oak Hook-tip (moth)
<i>Xanthia icteritia</i>	Sallow (moth)
<b>Sussex Rare Species Inventory</b>	
<i>Brachythemium mildeanum</i>	Sand Feather-moss
<i>Buxus sempervirens</i>	Box
<i>Calamotropha paludella</i>	Bulrush veneer (moth)
<i>Chloroclysta siterata</i>	Red-green Carpet (moth)
<i>Eilema sororcula</i>	Orange Footman (moth)
<i>Eleogiton fluitans</i>	Floating Club-rush
<i>Furcula bicuspis</i>	Alder Kitten (moth)
<i>Globia sparganii</i>	Webb's Wainscot (moth)
<i>Hadena compta</i>	Varied Coronet (moth)
<i>Mythimna l-album</i>	L-album Wainscot (moth)
<i>Parascotia fuliginaria</i>	Waved Black (moth)
<i>Selenia lunularia</i>	Lunar Thorn (moth)
<i>Sibthorpia europaea</i>	Cornish Moneywort
<i>Tetheella fluctuosa</i>	Satin Lutestring (moth)
<i>Thera cupressata</i>	Cypress carpet (moth)
<b>Notable Bird Inventory</b>	
<i>Apus apus</i>	Swift
<i>Ardea cinerea</i>	Grey heron
<i>Delichon urbicum</i>	House martin
<i>Falco subbuteo</i>	Hobby
<i>Hirundo rustica</i>	Swallow
<i>Milvus milvus</i>	Red kite
<i>Poecile Montana</i>	Willow tit
<i>Streptopelia turtur</i>	Turtle dove
<i>Tyto alba</i>	Barn owl
<b>Invasive Alien Species Inventory</b>	
<i>Crocasmia pottsii</i> x <i>aurea</i> = <i>C. x crocosmiiflora</i>	Montbretia
<i>Fallopia japonica</i>	Japanese Knotweed
<i>Hyacinthoides non-scripta</i> x <i>hispanica</i> (= <i>H. x massartiana</i> )	Hybrid bluebell
<i>Impatiens glandulifera</i>	Indian balsam
<i>Prunus laurocerasus</i>	Cherry laurel
<i>Rhododendron ponticum</i>	Rhododendron
<i>Rosa rugosa</i>	Japanese rose

### Field Survey: Habitat Descriptions (See Figure 21/230)

**Improved/Poor semi-improved grassland** – Species poor and comprises a rather homogenous sward approximately 5-15cm in height. Yorkshire fog *Holcus lanatus* and common bent *Agrostis capillaris* are the most abundant grasses but perennial rye-grass *Lolium perenne* is also frequent. Soft rush *Juncus effusus* is occasional and locally frequent or abundant. Forb content is low, approximately 10% and includes occasional creeping buttercup *Ranunculus repens*, greater bird's foot trefoil *Lotus pedunculatus*, dandelion *Taraxacum officinale* agg. and marsh thistle *Cirsium palustre*. It also includes a locally prominent ruderal element including nettle, broadleaved dock *Rumex obtusifolius* and creeping thistle *Cirsium arvense*.

**Marshy grassland** – Is dominated by abundant soft rush *Juncus effusus*, although Yorkshire fog and common bent are also frequent. Other species include male fern *Dryopteris felix-mas*, creeping buttercup, lesser spearwort *Ranunculus flammula*, greater bird's foot trefoil *Lotus pedunculatus*, broadleaved willowherb *Epilobium montanum*, nettle, water pepper *Persicaria hydropiper*, broadleaved dock, woody nightshade *Solanum dulcamara* and marsh thistle.

**Tall ruderal** – Occasional stands on field edges.

**Trees** – in addition to those within hedges there are a number of mature oak trees on field edges beside the woodland in the most easterly field.

**Scrub** – Some small stands of bramble and gorse.

**Hedges** – Species rich with hawthorn, blackthorn, hazel, holly, rose, hornbeam and willow, and sections include trees, including oak ash and birch, some of which are mature. The hedges adjoining the marshy grassland are gappy.

**Pond** – Is located in the south eastern corner of the most easterly part of the Site. At the time of the survey it contains only a few cm depth of water in a small part of its area. Most of the pond is occupied by branched bur-reed *Sparganium erectum*, although broadleaved pondweed *Potamogeton natans*, lesser spearwort, floating sweet-grass *Glyceria fluitans* and rushes *Juncus* spp. are also present.

### Field Survey: Protected and Notable Species

No species considered notable for their nature conservation value recorded during the Phase I habitat field survey.

### Field Survey: Invasive Non-native Species

No invasive non-native species recorded within the Site.

### Assessment of Potential for Protected and Notable Species

**Great crested newts** – In addition to the pond within the Site there are ponds within Ham Wood and south of Monkhurst Farm immediately adjacent to the Site. OS maps also indicate ponds in woodland, approximately 250 west of the western boundary of the Site and near Barrets Park Farm and Barrets Park Wood, approximately 60-100m south and south east. Suitable terrestrial habitat for great crested newts within the Site is largely limited to the hedges and along boundaries.

**Reptiles** – Potential in and around marshy grassland and limited potential along some boundaries.

**Breeding birds** – In hedges, trees and scrub. The fields are large enough to make them suitable for ground nesting species such as skylark, although the habitat is currently considered less than ideal.

**Bats** – Trees and mature trees in particular, with features such as cracks and cavities, have potential to be used as roosts. Activity, including foraging and commuting, is likely throughout, but especially along hedges and woodland edges.

**Dormice** – High potential in hedges due to connectivity with wider habitat network of hedges and woodland.

**Badgers** – Potential for setts within the hedges and adjoining woodland, but with or without setts badgers may also use any part of the Site for foraging, though neither was recorded during the survey.

## Recommendations for Further Survey (and optimal survey timings)

**Amphibian (including great crested newt)** – (March – June) of the ponds to the east of the Site.

**Reptiles** – (May – June, September – October) in suitable habitat throughout the Site.

**Breeding birds** – (April – June) especially hedges and adjoining woodland.

**Bats** – (inspections: year round; activity surveys April – October) in the first instance inspection of trees to determine the scope for further survey and activity surveys.

**Dormice** – (April – November) in suitable habitat, including hedges and adjoining woodland.

**Badgers** – (Year round but Spring / Autumn optimal) of whole Site and adjoining woodland.

## INDICATIVE ECOLOGICAL APPRAISAL

**Moderate value** – a relatively large site. The species poor grassland is of low value but the hedge network, including mature trees, marshy grassland and pond are of moderate value.

The Sites location adjacent to Ham Wood and Barret's Park Wood Ancient Woodland increases its value and sensitivity. The Site's habitats and features have moderate potential to support notable/protected species.

## Impact Avoidance

In order to limit, as far as possible, potentially adverse effects of development including potential harm to the integrity of the wider green infrastructure network, effort should be made to avoid the more ecologically valuable parts of the Site by:

- Buffering the adjoining Ancient Woodland.
- Retaining and buffering the hedges and mature trees and their features.
- Retaining and buffering the marshy grassland.
- As far as possible and appropriate retaining and buffering habitats and features supporting notable/protected species, based on the results of more detailed surveys.

## Outline Mitigation

Should development at this Site proceed, generic (standard) mitigation for impacts upon habitats and species is set out below. Further detailed or species-specific mitigation may be required dependent upon the outcome of the recommended protected habitat or species surveys.

- Implementation of a Construction and Environmental Management Plan (CEMP) to manage site-specific issues relating to the potential impacts of construction on ecological features of interest.
- Timing of vegetation clearance works to avoid the bird breeding season (March – August inclusive).
- Offset buffers to protect retained habitats (minimum 10m).
- Use of protective fencing to define construction areas and protect retained habitats.
- Avoidance of night-time working wherever possible. When not possible, use directional lighting to prevent lightshed into surrounding habitats.
- Inclusion of mammal ladders or similar in any trenches left open overnight.
- Sealing of pipework overnight, to prevent animals becoming trapped.
- Defined and bunded areas for fuel storage and refuelling to prevent spillages and pollution incidents.
- On-Site spill incident equipment, in the event of spillages of fuel or other materials. Specific measures will be required if any works are close to watercourses and/or waterbodies.
- If great crested newts are found to be present in the pond on site, retention of pond and sufficient area of terrestrial habitat (as part of buffer strip) and other possible measures to safeguard their conservation status, under a Natural England European Protected Species licence. If not present in this pond but present in any of the ponds nearby then measures should be put in place to prevent harming or killing them, including for example the erection of herptile fencing to exclude them from work areas, and possibly trapping and translocation to suitable receptor areas elsewhere.
- If reptiles are found to be present, measures to prevent harm to them, including potentially translocation from the development Site to a suitable receptor site. Where feasible such receptor

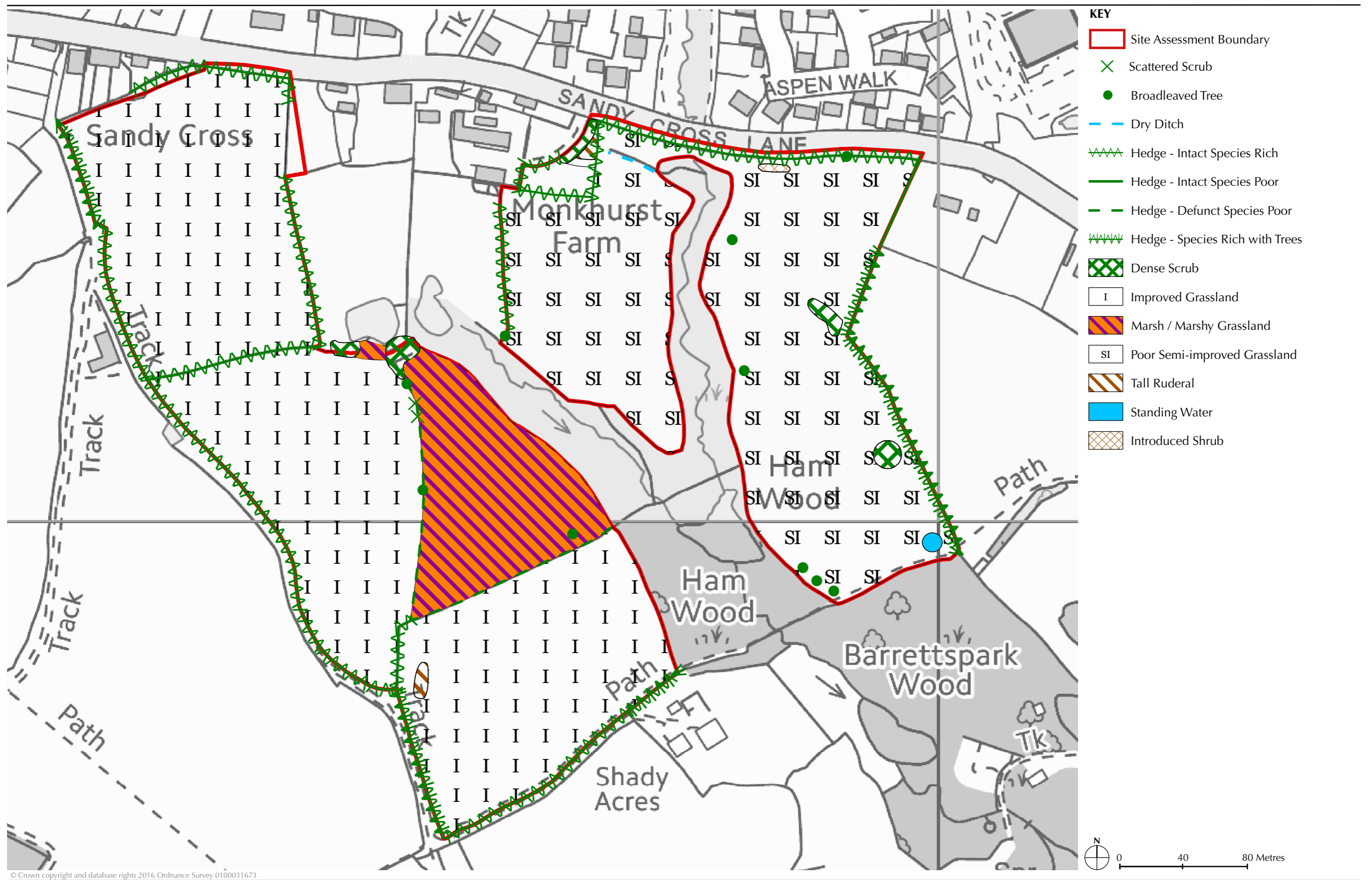
areas should be incorporated into the new development (for example in buffer strips beside retained hedges, as noted above).

- New development may need to incorporate bat roosts as alternative or replacement habitat if roosts are likely to be lost.
- Insofar as any proposed development of the Site allows, lighting design, particularly for the periphery of the Site should be minimised as far as possible. As a minimum, any lighting along Site boundaries that may potentially form important commuting corridors (e.g. hedgerows) or adjacent woodlands that may support bat roosts should make use of backboards and/or internal louvres to ensure light is directed into the Site and light spill into the adjacent areas of retained habitat is minimised.
- If dormice are found to be present the retention and appropriate buffering of hedges and adjoining woodland (as noted above).
- Development should avoid construction works within at least 30m of the nearest badger setts and seek to avoid prime foraging grounds identified through the badger survey and severance of commuting corridors within territories.

### **Potential Enhancement Opportunities**

Opportunities for enhancing, restoring and/or creating new habitats as an integral part of a Site's development that can also contribute to the District's wider ecological /green infrastructure network are identified below:

- Positively and appropriately manage retained habitats and features, including hedges, mature trees and marshy grassland.
- Habitat creation, ideally located adjacent to retained or adjoining habitat, for example in field corners, or to form habitat corridors or links. To include for example:
  - Wildlife pond(s), included for example as part of a SuDS scheme;
  - Species-rich grassland and associated features for supporting a variety of terrestrial invertebrates;
  - Scrub and trees; and
  - Creation of dead wood habitats and other habitat piles.
- Erection of bat boxes suitable for a range of bat species, on retained trees or incorporated into buildings where they will remain unlit.
- Erection of bird boxes suitable for a range of bird species on retained trees or incorporated into buildings.
- Incorporate features to SuDS scheme(s), such as the use of native wetland plant species, to enhance their value.



ECOLOGICAL ASSESSMENT	
Area:	Heathfield
Site Name:	Land on North side of Burwash Road, East of Marklye Lane, Heathfield
Site Reference Number:	258/1210
Site Summary Description	
A 3.48ha Site comprising three species poor grassland fields with associated hedges and mature trees. The northern field includes areas of marshy grassland and there is also patchy scrub and tall ruderal.	
ECOLOGICAL BASELINE	
Green Infrastructure Context (see Figure 21.1)	
<p>The Site is located within the broader High Weald landscape of small to medium sized fields, including both grassland and arable, set within a relatively extensive and intact hedgerow network which includes frequent trees. Woodland, including Ancient Woodland, is relatively plentiful and includes both large and small parcels. The Site lies on the north eastern edge of Heathfield, in the angle of Marklye Lane and Burwash Road. To the west is a residential area of Heathfield. To the north is open countryside comprising fields with hedges and areas of woodland. To the east, beyond a small field with hedges is an area of residential and commercial development. To the south of Burwash Road there are scattered residential properties among small fields and hedges. Beyond this, approximately 170m to the south of the Site, is Heathfield Park, which includes relatively extensive areas of Deciduous Woodland, including Ancient Woodland, and Wood Pasture and Parkland BAP Priority Habitats (see Desk Study: BAP Priority Habitats. Part of this is also designated SSSI (see Desk Study: Designated Sites and <b>Figure 21.2</b>).</p>	
Desk Study: Designated Sites within 1 km (see Figure 21.2)	Distance from Site
<ul style="list-style-type: none"> <li>The Site lies approximately 250m north west to the nearest point of <b>Heathfield Park SSSI</b>. The Citation states: <i>"This Site is an example of an ancient Wealden Gill woodland formed by the vigorous downcutting of a stream into the Ashdown Sand series of the Hastings Beds. A number of 'Atlantic' plants, uncommon in the south-east, are present and the lichen flora is also notable ... The woodland is dominated by mature beech Fagus sylvatica with both pedunculate and sessile oak Quercus robur and Q. petraea, holly Ilex aquifolium and scattered yew Taxus baccata. In the north and east birch Betula spp. becomes frequent and the stream valleys contain willow Salix spp. and alder Alnus glutinosa ... Continuous woodland cover in this sheltered Gill provides a moist, mild microclimate and a number of plant species occur here which are otherwise restricted to western counties, including Cornish moneywort Sibthorpia europaea, hay-scented buckler-fern Dryopteris aemula and the liverwort Frullania tamarisci. The Site is also of county importance for lichens: a total of 76 species have been recorded here ... The lakes add to the value of the Site for dragonflies and birds."</i></li> </ul>	<ul style="list-style-type: none"> <li>250m South East of the Site.</li> </ul>
Desk Study: BAP Priority Habitats within 1km	Distance from Site
<ul style="list-style-type: none"> <li>Ancient &amp; semi-natural woodland – Markly Wood ext</li> <li>Ancient &amp; semi-natural woodland – Heathfield Park</li> <li>Ancient &amp; semi-natural woodland – Oaken Wood</li> <li>Ancient &amp; semi-natural woodland – Black Wood</li> </ul>	<ul style="list-style-type: none"> <li>440m North West</li> <li>170m South</li> <li>Adjacent North</li> <li>590m North East</li> </ul>

<ul style="list-style-type: none"> <li>• Lowland Heath BAP priority habitat (2 areas un-named)</li> <li>• Wood Pasture &amp; Parkland BAP priority habitat (part of Heathfield Park SSSI)</li> </ul>	<ul style="list-style-type: none"> <li>• 850m – 960m NW</li> <li>• 240m South</li> </ul>
<b>Desk Study: Protected and Notable Species within 1km</b>	
<p><b>Protected Species</b>  <i>Myotis nattereri</i> Natterer's bat</p> <p><b>Sussex BAP Species</b>  <i>Limenitis camilla</i> White admiral</p> <p><b>Sussex Rare Species Inventory</b>  <i>Buxus sempervirens</i> Box  <i>Eleogiton fluitans</i> Floating Club-rush  <i>Pyrola minor</i> Common wintergreen  <i>Sibthorpia europaea</i> Cornish Moneywort</p> <p><b>Notable Bird Inventory</b>  <i>Apus apus</i> Swift  <i>Ardea cinerea</i> Grey heron  <i>Delichon urbicum</i> House martin  <i>Hirundo rustica</i> Swallow  <i>Tyto alba</i> Barn owl</p> <p><b>Invasive Alien Species Inventory</b>  <i>Allium triquetrum</i> Three-cornered garlic  <i>Campylopus introflexus</i> Heath Star Moss  <i>Centranthus ruber</i> Red valerian  <i>Cotoneaster simonsii</i> Himalayan cotoneaster  <i>Crocasmia pottsii</i> x <i>aurea</i> = <i>C. x crocosmiiflora</i> Montbretia  <i>Fallopia japonica</i> Japanese Knotweed  <i>Harmonia axyridis</i> Harlequin Ladybird  <i>Hyacinthoides non-scripta</i> x <i>hispanica</i>  (= <i>H. x massartiana</i>) Hybrid bluebell  <i>Lamiastrum galeobdolon</i> subsp. <i>Argentatum</i> Variegated yellow archangel  <i>Petasites fragrans</i> Winter heliotrope  <i>Prunus laurocerasus</i> Cherry laurel  <i>Rhododendron ponticum</i> Rhododendron</p>	
<b>Field Survey: Habitat Descriptions (see Figure 21/258)</b>	
<p><b>Poor semi-improved grassland</b> – Comprises a rather homogenous sward approximately 10cm high. Species poor, with the most abundant grasses Yorkshire fog <i>Holcus lanatus</i> and common bent <i>Agrostis capillaris</i>. Perennial rye-grass <i>Lolium perenne</i>, common couch <i>Elytrigia repens</i> and timothy <i>Phleum pratense</i> also present, as was soft rush <i>Juncus effusus</i>. Forb cover is low and consists largely of very common and widespread species, especially creeping and meadow buttercup <i>Ranunculus repens</i> and <i>acris</i> but also greater bird's foot trefoil <i>Lotus pedunculatus</i>. Tall ruderals, including nettle, docks and thistles are present throughout.</p> <p><b>Marshy grassland</b> – Present in the northern part of the northern field. This includes many of the species present in the adjoining grassland but also abundant soft rush as well as more frequent greater bird's foot trefoil and broadleaved willowherb <i>Epilobium montanum</i>, common sorrel <i>Rumex acetosa</i>, marsh thistle <i>Cirsium palustre</i> and fleabane <i>Pulicaria dysenterica</i>.</p> <p><b>Tall ruderal</b> – Mostly nettle and largely located on or near boundaries or as a mosaic with scrub.</p>	

**Hedges** – Species rich and includes hawthorn, blackthorn, willows, hazel, holly, oak and birch. Some sections include mature trees, mostly oaks.

**Trees and scrub** – Stands of bramble in field corners (of which some had been recently cut) and with scattered bushes and young trees in an unmanaged area in the north east of the Site. This area also includes several alder trees. A small stand of aspen is present among the marshy grassland.

**Woodland** – There is a small area of woodland or outgrown hedge on the north western boundary along the course of a seasonal or ephemeral stream. This has a canopy of oak and sycamore, shrubs including willow, hazel and holly and a field layer including bramble and male and broad buckler ferns *Dryopteris felix-mas* and *dilatata*.

#### Field Survey: Protected and Notable Species

No species considered notable for their nature conservation value recorded during the Phase I habitat field survey.

#### Field Survey: Invasive Non-native Species

No invasive non-native species recorded within the Site.

#### Assessment of Potential for Protected and Notable Species

**Great crested newts** – There are no ponds within the Site. However, OS maps indicate the presence of ponds approximately 100m east of the southern part of the Site and beside Gibraltar Tower within Heathfield Park, approximately 400m to the south. However, recent aerial images suggest the pond to the east may no longer exist and given the distance to the pond to the south, the widespread availability of suitable terrestrial habitat close to the it and the significant barriers to dispersal from the south, including the A265 Burwash Road, the probability of great crested newts being present is considered very low.

**Reptiles** – Some potential along boundaries and in the unmanaged area in the north east

**Breeding birds** – in woodland, hedges, trees and scrub. The northern field is of sufficient size to potentially be used by ground nesting species such as skylark, although the habitat is considered to be significantly less than ideal at present.

**Bats** – Trees and mature trees in particular, with features such as cracks and cavities, largely within the hedges and woodland on the northern boundary, have potential to be used as roosts. Given the habitats and features present activity, including foraging and commuting, is likely throughout, but especially around woodland, hedges and trees.

**Dormice** – Moderate to high potential in woodland, hedges and scrub due to good connectivity to the wider ecological network

**Badgers** – Potential for setts within the hedgerows, woodland and other boundary vegetation, but with or without setts badgers may also use any or the entire Site for foraging. However, neither setts nor foraging signs are recorded during the survey.

#### Recommendations for Further Survey (and optimal survey timings)

**Reptiles** – (May – June, September – October) in suitable habitat throughout the Site

**Breeding birds** – (April – June) especially woodland, hedges and scrub

**Bats** – (inspections: year round; activity surveys April – October) in the first instance inspection of trees to determine the scope for further survey and activity surveys

**Dormice** – (April – November) in suitable habitat

**Badgers** – (Year round but Spring / Autumn optimal) of whole site

## INDICATIVE ECOLOGICAL APPRAISAL

**Moderate value** – although much of the grassland is species poor the marshy grassland retains some diversity and the hedges and woodland, including mature trees are of moderate value and are well connected to the wider ecological network. The Site's habitats and features have high potential to support notable/protected species.

### Impact Avoidance

In order to limit, as far as possible, potentially adverse effects of development including potential harm to the integrity of the wider green infrastructure network, effort should be made to avoid the more ecologically valuable parts of the Site by:

- Retaining and buffering the woodland and hedges, including the mature trees and their features.
- Consider retaining at least a proportion of the marshy grassland.
- As far as possible and appropriate retaining and buffering habitats and features supporting notable/protected species, based on the results of more detailed surveys.

### Outline Mitigation

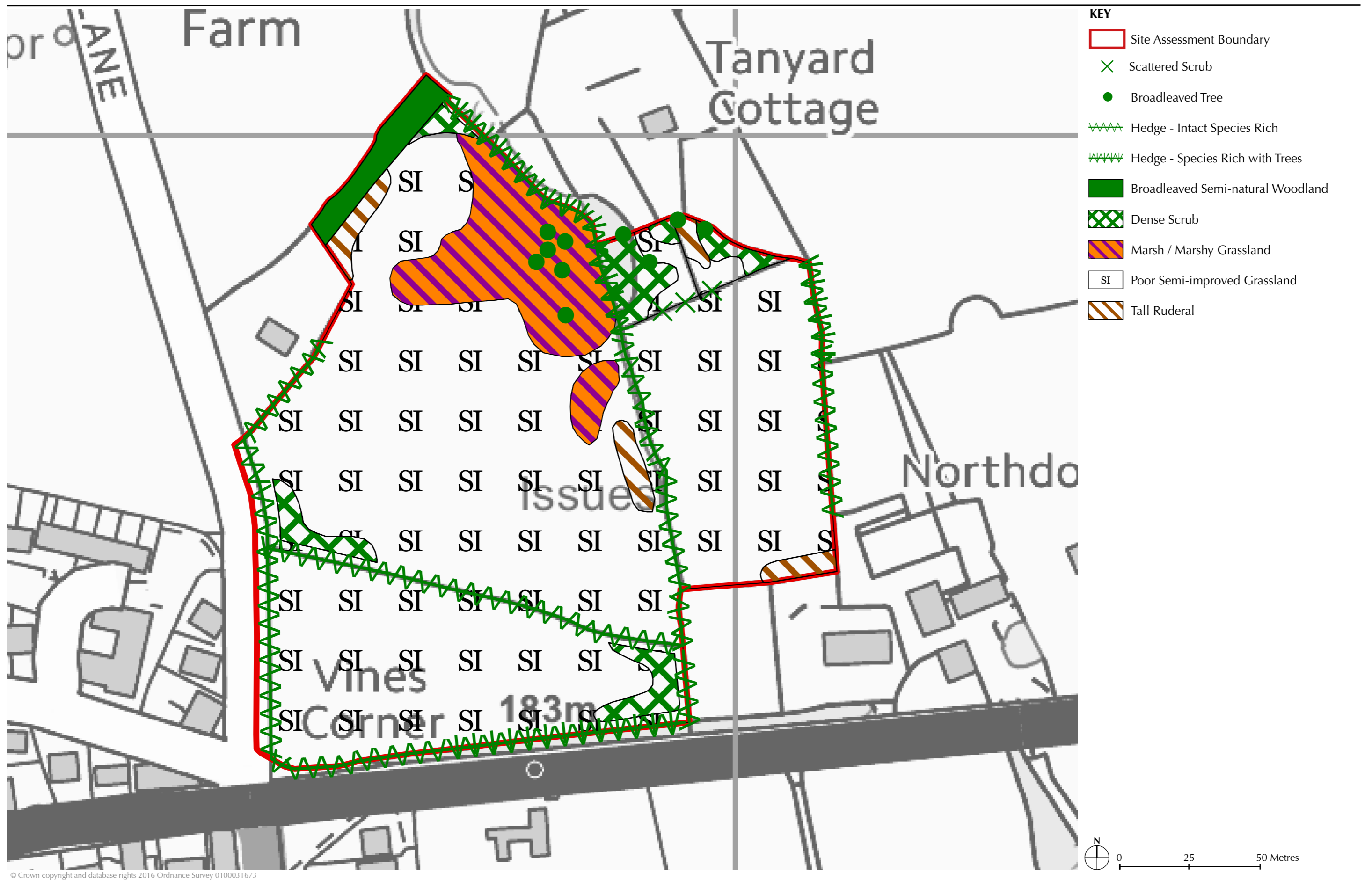
Should development at this Site proceed, generic (standard) mitigation for impacts upon habitats and species is set out below. Further detailed or species-specific mitigation may be required dependent upon the outcome of the recommended protected habitat or species surveys.

- Implementation of a Construction and environmental Management Plan (CEMP) to manage site-specific issues relating to the potential impacts of construction on ecological features of interest;
- Timing of vegetation clearance works to avoid the bird breeding season (March – August inclusive);
- Offset buffers to protect retained habitats (minimum 10m);
- Use of protective fencing to define construction areas and protect retained habitats;
- Avoidance of night-time working wherever possible. When not possible, use directional lighting to prevent lightshed into surrounding habitats;
- Inclusion of mammal ladders or similar in any trenches left open overnight;
- Sealing of pipework overnight, to prevent animals becoming trapped;
- Defined and bunded areas for fuel storage and refuelling to prevent spillages and pollution incidents;
- On-Site spill incident equipment, in the event of spillages of fuel or other materials. Specific measures will be required if any works are close to watercourses and/or waterbodies.
- If reptiles are found to be present, measures to prevent harm to them, including potentially translocation from the development Site to a suitable receptor site. Where feasible such receptor areas should be incorporated into the new development (for example in buffer strips beside retained hedges, as noted above).
- New development may need to incorporate bat roosts as alternative or replacement habitat if roosts are likely to be lost.
- Insofar as any proposed development of the Site allows, lighting design, particularly for the periphery of the Site should be minimised as far as possible. As a minimum, any lighting along Site boundaries that may potentially form important commuting corridors (e.g. hedgerows) or adjacent woodlands that may support bat roosts should make use of backboards and/or internal louvres to ensure light is directed into the Site and light spill into the adjacent areas of retained habitat is minimised.
- If dormice are found to be present the retention and appropriate buffering of woodland and hedges (as noted above).
- Development should avoid construction works within at least 30m of the nearest badger setts and seek to avoid prime foraging grounds identified through the badger survey and severance of commuting corridors within territories.

### Potential Enhancement Opportunities

Opportunities for enhancing, restoring and/or creating new habitats as an integral part of a Site's development that can also contribute to the District's wider ecological /green infrastructure network are identified below:

- Positively and appropriately manage retained habitats and features, including woodland, hedges, mature trees and marshy grassland.
- Planting of appropriate native species to strengthen boundary vegetation, for example beside adjoining residential property on the western boundary and along the far south eastern boundary.
- Habitat creation, ideally located adjacent to retained or adjoining habitat, for example in field corners such as the northernmost part of the Site, or to form habitat corridors or links. To include for example:
  - Wildlife pond(s), included for example as part of a SuDS scheme;
  - Species-rich grassland and associated features for supporting a variety of terrestrial invertebrates;
  - Scrub and trees; and
  - Creation of dead wood habitats and other habitat piles.
- Erection of bat boxes suitable for a range of bat species, on retained trees or incorporated into buildings where they will remain unlit.
- Erection of bird boxes suitable for a range of bird species on retained trees or incorporated into buildings.
- Incorporate features to SuDS scheme(s), such as the use of native wetland plant species, to enhance their value.



ECOLOGICAL ASSESSMENT	
Settlement/Area:	Heathfield
Site Address:	Land west of Marklye Lane, Heathfield
Site Reference Number:	259/1210
Site Summary Description	
A 5.68ha Site comprising a species poor grassland field with stands of bracken and associated hedges, trees, including mature trees and scrub. Also includes an area of woodland.	
ECOLOGICAL BASELINE	
Green Infrastructure Context (see Figure 21.1)	
<p>The Site is located within the broader High Weald landscape of small to medium sized fields, including both grassland and arable, set within a relatively extensive and intact hedgerow network which includes frequent trees. Woodland, including Ancient Woodland, is relatively plentiful and includes both large and small parcels. The Site lies on the north eastern edge of Heathfield, to the west of Marklye Lane. To the south is a residential area of Heathfield and to the north and east is open countryside comprising fields with hedges and areas of woodland. The wooded north western part of the Site forms a small part of the much larger Markly Wood, which includes both Ancient Woodland and plantation. Heathfield Park, which includes relatively extensive areas of Deciduous Woodland, including Ancient Woodland, and Wood Pasture and Parkland BAP Priority Habitats (see Desk Study: BAP Priority Habitats), lies approximately 190m to the south east. Part of this is also designated SSSI (see Desk Study: Designated Sites and <b>Figure 21.2</b>).</p>	
Desk Study: Designated Sites within 1km (see Figure 21.2)	Distance from Site
<ul style="list-style-type: none"> <li>The Site lies approximately 400m north west to the nearest point of <b>Heathfield Park SSSI</b>. The Citation states: <i>"This Site is an example of an ancient Wealden Gill woodland formed by the vigorous downcutting of a stream into the Ashdown Sand series of the Hastings Beds. A number of 'Atlantic' plants, uncommon in the south-east, are present and the lichen flora is also notable ... The woodland is dominated by mature beech Fagus sylvatica with both pedunculate and sessile oak Quercus robur and Q. petraea, holly Ilex aquifolium and scattered yew Taxus baccata. In the north and east birch Betula spp. becomes frequent and the stream valleys contain willow Salix spp. and alder Alnus glutinosa ... Continuous woodland cover in this sheltered Gill provides a moist, mild microclimate and a number of plant species occur here which are otherwise restricted to western counties, including Cornish moneywort Sibthorpia europaea, hay-scented buckler-fern Dryopteris aemula and the liverwort Frullania tamarisci. The Site is also of county importance for lichens: a total of 76 species have been recorded here ... The lakes add to the value of the Site for dragonflies and birds."</i></li> <li>The Site lies approximately 980m south of the nearest point of <b>Oaken and Furlong Woods LWS</b>. The Citation summary describes the Site as follows: <i>"Ancient woodland with bank and ditch system, bordered by ancient green land and consisting of oak, sweet chestnut coppice and small-leaved lime coppice"</i>.</li> </ul>	<ul style="list-style-type: none"> <li>400m South East of the Site.</li> <li>980m North</li> </ul>

Desk Study: BAP Priority Habitats within 1km		Distance from Site
<ul style="list-style-type: none"> <li>• Ancient &amp; semi-natural woodland – Markly Wood ext</li> <li>• Ancient &amp; semi-natural woodland – Markly Wood</li> <li>• Ancient &amp; semi-natural woodland – Heathfield Park</li> <li>• Ancient &amp; semi-natural woodland – Oaken Wood</li> <li>• Ancient &amp; semi-natural woodland – Black Wood</li> <li>• Lowland Heath BAP priority habitat (2 areas un-named)</li> <li>• Wood Pasture &amp; Parkland BAP priority habitat (part of Heathfield Park SSSI)</li> <li>• Broadleaved woodland BAP priority habitat (un-named)</li> </ul>		<ul style="list-style-type: none"> <li>• Adjacent West</li> <li>• 730m West</li> <li>• 320m South East</li> <li>• 100m North East</li> <li>• 680m North East</li> <li>• 475m – 550m NW</li> <li>• 370m South</li> <li>• In Site</li> </ul>
Desk Study: Protected and Notable Species within 1km		
<b>Protected Species</b> <i>Myotis nattereri</i> Natterer's bat <i>Pipistrellus pipistrellus</i> Common Pipistrelle (45 kHz) bat <i>Pipistrellus pygmaeus</i> Soprano pipistrelle (55kHz) bat <i>Plecotus auritus</i> Brown Long-eared bat  <b>Sussex BAP Species</b> <i>Limenitis camilla</i> White admiral  <b>Sussex Rare Species Inventory</b> <i>Buxus sempervirens</i> Box <i>Eleogiton fluitans</i> Floating Club-rush <i>Pyrola minor</i> Common wintergreen <i>Sibthorpia europaea</i> Cornish Moneywort <i>Somatochlora metallica</i> Brilliant emerald  <b>Notable Bird Inventory</b> <i>Apus apus</i> Swift <i>Ardea cinerea</i> Grey heron <i>Delichon urbicum</i> House martin <i>Hirundo rustica</i> Swallow <i>Tyto alba</i> Barn owl  <b>Invasive Alien Species Inventory</b> <i>Allium triquetrum</i> Three-cornered garlic <i>Campylopus introflexus</i> Heath Star Moss <i>Centranthus ruber</i> Red valerian <i>Cotoneaster simonsii</i> Himalayan cotoneaster <i>Crocsmia pottsii</i> x <i>aurea</i> = <i>C. x crocosmiiflora</i> Montbretia <i>Fallopia japonica</i> Japanese Knotweed <i>Harmonia axyridis</i> Harlequin Ladybird <i>Hyacinthoides non-scripta</i> x <i>hispanica</i> (= <i>H. x massartiana</i> ) Hybrid bluebell <i>Lamiastrum galeobdolon subsp. Argentatum</i> Variegated yellow archangel <i>Petasites fragrans</i> Winter heliotrope <i>Prunus laurocerasus</i> Cherry laurel <i>Rhododendron ponticum</i> Rhododendron		

#### Field Survey: Habitat Descriptions (see Figure 21/259)

**Poor semi-improved grassland** – Species poor. Yorkshire fog *Holcus lanatus*, common bent *Agrostis capillaris* and perennial rye-grass *Lolium perenne* are the most abundant grasses, but rough meadow grass *Poa trivialis*, sweet vernal grass *Anthoxanthum odoratum* and common couch *Elytrigia repens* are occasional. Soft rush *Juncus effusus* is occasional. Forb content is low, less than 10%, and largely of very common and widespread species including creeping buttercup *Ranunculus repens*, white clover *Trifolium repens*, greater bird's foot trefoil *Lotus pedunculatus* and common sorrel *Rumex acetosa*.

**Marshy grassland** - A small area near the eastern boundary with abundant soft rush. Also includes greater bird's foot trefoil and broadleaved willowherb *Epilobium montanum*, common sorrel *Rumex acetosa*, woody nightshade *Solanum dulcamara* and marsh thistle *Cirsium palustre*, but also woodland species such as male fern *Dryopteris felix-mas* and tutsan *Hypericum androsaemum*.

**Bracken** – Stands around the field edges, especially to the north and east and to the south east of the woodland. Forms a mosaic with trees and scrub.

**Hedges** – On the northern and eastern boundaries these are species rich, with hawthorn, blackthorn, hazel and willows as well as oak, ash and sycamore trees.

**Trees and scrub** – Including an area in the north east of the Site, with abundant grey willow *Salix cinerea* but also mature oak trees. Also among bracken to the south east of the woodland and a small patch of willow scrub within the field. There is a line of trees and scrub along the southern boundary which may be a relic of an old boundary hedge.

**Woodland** – Appears not very species rich. The canopy is of oak and sycamore and the shrub layer of holly and abundant sycamore regeneration. The field layer includes bramble, grasses, bracken and male and broad buckler ferns *Dryopteris dilatata*.

#### Field Survey: Protected and Notable Species

No species considered notable for their nature conservation value recorded during the Phase I habitat field survey.

#### Field Survey: Invasive Non-native Species

No invasive non-native species recorded within the Site.

#### Assessment of Potential for Protected and Notable Species

**Great crested newts** – There are no ponds within the Site and OS maps suggest there are none within 500m of the Site without intervening significant barriers to dispersal. The probability of their being present is therefore considered low.

**Reptiles** – High potential along boundaries and among and beside bracken etc.

**Breeding birds** – In woodland, hedges, trees and scrub. The field is of sufficient size to potentially be used by ground nesting species such as skylark, although the habitat is considered to be significantly less than ideal at present.

**Bats** – Trees and mature trees in particular, with features such as cracks and cavities, on and near the boundaries and in the woodland, have potential to be used as roosts. Given the habitats and features present activity, including foraging and commuting, is likely throughout, but especially around woodland, hedges and trees.

**Dormice** – High potential in woodland, scrub and hedges due to connectivity to neighbouring woodland and hedge network.

**Badgers** – Potential for setts within the woodland, hedgerows, scrub, bracken and other boundary vegetation, but with or without setts badgers may also use any or all of the Site for foraging. However, neither setts nor foraging signs are recorded during the survey.

### Recommendations for Further Survey (and optimal survey timings)

**Reptiles** – (May – June, September – October) in suitable habitat throughout the Site.

**Breeding birds** – (April – June) especially woodland, scrub and hedges.

**Bats** – (inspections: year round; activity surveys April – October) in the first instance inspection of trees to determine the scope for further survey and activity surveys.

**Dormice** – (April – November) in suitable habitat.

**Badgers** – (Year round but Spring / Autumn optimal) of whole site.

### INDICATIVE ECOLOGICAL APPRAISAL

**Moderate value** – although much of the grassland is species poor the bracken and marshy grassland add diversity and the woodland, hedges, mature trees and scrub are of at least moderate value.

The Sites location adjacent to the large Markly Wood, which includes substantial areas of Ancient Woodland, increases its value and sensitivity.

The Sites habitats and features have high potential to support notable/protected species.

### Impact Avoidance

In order to limit, as far as possible, potentially adverse effects of development including potential harm to the integrity of the wider green infrastructure network, effort should be made to avoid the more ecologically valuable parts of the Site by:

- Retaining and buffering the woodland, scrub, hedges and mature trees and their features.
- As far as possible and appropriate retaining and buffering habitats and features supporting notable/protected species, based on the results of more detailed surveys.

### Outline Mitigation

Should development at this Site proceed, generic (standard) mitigation for impacts upon habitats and species is set out below. Further detailed or species-specific mitigation may be required dependent upon the outcome of the recommended protected habitat or species surveys.

- Implementation of a Construction and environmental Management Plan (CEMP) to manage site-specific issues relating to the potential impacts of construction on ecological features of interest.
- Timing of vegetation clearance works to avoid the bird breeding season (March – August inclusive).
- Offset buffers to protect retained habitats (minimum 10m).
- Use of protective fencing to define construction areas and protect retained habitats.
- Avoidance of night-time working wherever possible. When not possible, use directional lighting to prevent lightshed into surrounding habitats.
- Inclusion of mammal ladders or similar in any trenches left open overnight.
- Sealing of pipework overnight, to prevent animals becoming trapped.
- Defined and bunded areas for fuel storage and refuelling to prevent spillages and pollution incidents.
- On-Site spill incident equipment, in the event of spillages of fuel or other materials. Specific measures will be required if any works are close to watercourses and/or waterbodies.
- If reptiles are found to be present, measures to prevent harm to them, including potentially translocation from the development Site to a suitable receptor site. Where feasible such receptor areas should be incorporated into the new development (for example in buffer strips beside retained hedges, as noted above).
- New development may need to incorporate bat roosts as alternative or replacement habitat if roosts are likely to be lost.
- Insofar as any proposed development of the Site allows, lighting design, particularly for the periphery of the Site should be minimised as far as possible. As a minimum, any lighting along Site boundaries that may potentially form important commuting corridors (e.g. hedgerows) or adjacent woodlands that may support bat roosts should make use of backboards and/or internal louvres to ensure light is

directed into the Site and light spill into the adjacent areas of retained habitat is minimised.

- If dormice are found to be present the retention and appropriate buffering of woodland (as noted above).
- Development should avoid construction works within at least 30m of the nearest badger setts and seek to avoid prime foraging grounds identified through the badger survey and severance of commuting corridors within territories.

### **Potential Enhancement Opportunities**

Opportunities for enhancing, restoring and/or creating new habitats as an integral part of a Site's development that can also contribute to the District's wider ecological /green infrastructure network are identified below:

- Positively and appropriately manage retained habitats and features, including woodland, hedges, mature trees and scrub.
- Planting of appropriate native species to strengthen boundary vegetation, for example on the south western and southern boundaries.
- Habitat creation, ideally located adjacent to retained or adjoining habitat, for example in northern part of the field, or to form habitat corridors or links. To include for example:
  - Wildlife pond(s), included for example as part of a SuDS scheme;
  - Species-rich grassland and associated features for supporting a variety of terrestrial invertebrates;
  - Scrub and trees; and
  - Creation of dead wood habitats and other habitat piles.
- Erection of bat boxes suitable for a range of bat species, on retained trees or incorporated into buildings where they will remain unlit.
- Erection of bird boxes suitable for a range of bird species on retained trees or incorporated into buildings.
- Incorporate features to SuDS scheme(s), such as the use of native wetland plant species, to enhance their value.



ECOLOGICAL ASSESSMENT	
Settlement/Area:	Heathfield
Site Address:	Land South of Burwash Road and East of Tower Street, Heathfield
Site Reference Number:	260/1210
Site Summary Description	
A 0.72ha Site comprising two rather species poor grassland fields separated by a drive, but also including both species-rich and species-poor hedges and mature trees.	
ECOLOGICAL BASELINE	
Green Infrastructure Context (see Figure 21.1)	
<p>The Site is located within the broader High Weald landscape of small to medium sized fields, including both grassland and arable, set within a relatively extensive and intact hedgerow network which includes frequent trees. Woodland, including Ancient Woodland, is relatively plentiful and includes both large and small parcels. The Site lies on the north eastern edge of Heathfield, immediately to the south of Burwash Road. To the north there are some commercial and residential properties alongside Burwash Road but also open countryside comprising fields with hedges and areas of woodland. To the south and south east, beyond residential properties and small areas of woodland and grassland lies Heathfield Park, which includes relatively extensive areas of Deciduous Woodland, including Ancient Woodland, and Wood Pasture and Parkland BAP Priority Habitats (see Desk Study: BAP Priority Habitats). Part of this is also designated SSSI (see Desk Study: Designated Sites and <b>Figure 21.2</b>).</p>	
Desk Study: Designated Sites within 1km (see Figure 21.2)	Distance from Site
<ul style="list-style-type: none"> <li>The Site lies approximately 150m north to the nearest point of <b>Heathfield Park SSSI</b>. The Citation states: <i>"This Site is an example of an ancient Wealden Gill woodland formed by the vigorous downcutting of a stream into the Ashdown Sand series of the Hastings Beds. A number of 'Atlantic' plants, uncommon in the south-east, are present and the lichen flora is also notable ... The woodland is dominated by mature beech Fagus sylvatica with both pedunculate and sessile oak Quercus robur and Q. petraea, holly Ilex aquifolium and scattered yew Taxus baccata. In the north and east birch Betula spp. becomes frequent and the stream valleys contain willow Salix spp. and alder Alnus glutinosa ... Continuous woodland cover in this sheltered Gill provides a moist, mild microclimate and a number of plant species occur here which are otherwise restricted to western counties, including Cornish moneywort Sibthorpia europaea, hay-scented buckler-fern Dryopteris aemula and the liverwort Frullania tamarisci. The Site is also of county importance for lichens: a total of 76 species have been recorded here ... The lakes add to the value of the Site for dragonflies and birds."</i></li> </ul>	<ul style="list-style-type: none"> <li>150m South of the Site.</li> </ul>
Desk Study: BAP Priority Habitats within 1km	Distance from Site
<ul style="list-style-type: none"> <li>Ancient &amp; semi-natural woodland – Oaken Wood</li> <li>Ancient &amp; semi-natural woodland – Markly Wood ext</li> <li>Ancient &amp; semi-natural woodland – Heathfield Park</li> <li>Ancient &amp; semi-natural woodland – Black Wood</li> <li>Wood Pasture &amp; Parkland BAP priority habitat (part of Heathfield Park SSSI)</li> <li>Deciduous woodland BAP priority habitat</li> </ul>	<ul style="list-style-type: none"> <li>340m North</li> <li>640m North West</li> <li>90m South</li> <li>680m North East</li> <li>150m South</li> <li>In Site</li> </ul>

## Desk Study: Protected and Notable Species within 1km

### Protected Species

*Myotis nattereri* Natterer's bat

### Sussex BAP Species

*Limnitis camilla* White admiral

### Sussex Rare Species Inventory

*Buxus sempervirens* Box  
*Eleogiton fluitans* Floating Club-rush  
*Pyrola minor* Common wintergreen  
*Sibthorpia europaea* Cornish Moneywort

### Notable Bird Inventory

*Apus apus* Swift  
*Ardea cinerea* Grey heron  
*Delichon urbicum* House martin  
*Hirundo rustica* Swallow  
*Tyto alba* Barn owl

### Invasive Alien Species Inventory

*Allium triquetrum* Three-cornered garlic  
*Campylopus introflexus* Heath Star Moss  
*Centranthus ruber* Red valerian  
*Cotoneaster simonsii* Himalayan cotoneaster  
*Crocsmia pottsii* x *aurea* = *C. x crocosmiiflora* Montbretia  
*Fallopia japonica* Japanese Knotweed  
*Harmonia axyridis* Harlequin Ladybird  
*Hyacinthoides non-scripta* x *hispanica*  
(= *H. x massartiana*) Hybrid bluebell  
*Lamiastrum galeobdolon* subsp. *Argentatum* Variegated yellow archangel  
*Petasites fragrans* Winter heliotrope  
*Prunus laurocerasus* Cherry laurel  
*Rhododendron ponticum* Rhododendron

## Field Survey: Habitat Descriptions (see Figure 21/260)

**Poor semi-improved grassland** – The grassland appears to be unmanaged and comprises a sward approximately 10-20cm in height. It appears to be rather species poor in which the dominant grasses are Yorkshire fog *Holcus lanatus* and common bent *Agrostis capillaris*, although perennial rye-grass *Lolium perenne* was frequent. Other grasses include cocksfoot *Dactylis glomerata*, Timothy *Phleum pratense* and common couch *Elytrigia repens*. Forb cover is in the region of 30%, with the most frequent and abundant species being creeping and meadow buttercup *Ranunculus repens* and *acris*, bird's foot trefoil *Lotus corniculatus*, common sorrel *Rumex acetosa* and common knapweed *Centaurea nigra*. Other species include red clover *Trifolium pratense*, meadow vetchling *Lathyrus pratensis*, tufted vetch *Vicia cracca* and common mouse-ear *Cerastium fontanum*.

**Trees** – There are mature trees, including oak and ash in the eastern fields. A non-native oak and false acacia *Robinia pseudoacacia* are present in the western section of the hedge on the northern boundary.

**Hedges** – The hedge on the northern boundary is species poor and comprises largely non-native oval-leaved privet *Ligustrum ovalifolium*. The hedge on the southern boundary of the western field is species rich with hornbeam, hawthorn, holly and hazel.

**Wet depression** – There is a small depression among trees on the eastern side of the Site. This is dry at the time of the survey and although it may hold small amounts of water seasonally during the winter it is unlikely it does so for long periods of time.

<b>Field Survey: Protected and Notable Species</b>
No species considered notable for their nature conservation value recorded during the Phase I habitat field survey.
<b>Field Survey: Invasive Non-native Species</b>
No invasive non-native species recorded within the Site.
<b>Assessment of Potential for Protected and Notable Species</b>
<p><b>Great crested newts</b> – There are no ponds within the Site. However, OS maps indicate the presence of ponds to the north of the A265 Burwash Road, approximately 30m from the Site and beside Gibraltar Tower within Heathfield Park, approximately 350m to the south. However, recent aerial images suggest the pond to the north may no longer exist and the A265 Burwash Road also represents a significant barrier to dispersal of great crested newts from the north. Suitable terrestrial habitat appears widespread adjacent to the pond to the south but within the Site is limited to hedges. Therefore the probability of great crested newts being present within the Site is considered to be very low.</p> <p><b>Reptiles</b> – Potential especially along boundaries.</p> <p><b>Breeding birds</b> – In trees and hedges.</p> <p><b>Bats</b> – Trees and mature trees in particular, with features such as cracks and cavities, for example those in the eastern field, have potential to be used as roosts. Given the habitats and features present activity, including foraging and commuting, is likely throughout, but especially in and around hedges and trees.</p> <p><b>Dormice</b> – Moderate potential in hedges due to habitat connections to adjoining hedges and woodland.</p> <p><b>Badgers</b> – Potential for setts within the hedgerows, but with or without setts badgers may also use any or all of the Site for foraging. However, neither setts nor foraging signs are recorded during the survey.</p>
<b>Recommendations for Further Survey (and optimal survey timings)</b>
<p><b>Reptiles</b> – (May – June, September – October) in suitable habitat throughout the Site.</p> <p><b>Bats</b> – (inspections: year round; activity surveys April – October) in the first instance inspection of trees to determine the scope for further survey and activity surveys.</p> <p><b>Dormice</b> – (April – November) in suitable habitat, especially hedges.</p> <p><b>Badgers</b> – (Year round but Spring / Autumn optimal) of whole site.</p>
<b>INDICATIVE ECOLOGICAL APPRAISAL</b>
<p><b>Low to Moderate value</b> – small areas of moderately valuable habitat, of which the species-rich hedge and mature trees are probably the most significant.</p> <p>The Sites proximity to Heathfield Park, which supports relatively extensive areas of BAP Priority habitat, part of which is designated SSSI, increases its value and sensitivity.</p> <p>The Sites habitats and features have moderate potential to support notable/protected species.</p>

## Impact Avoidance

In order to limit, as far as possible, potentially adverse effects of development including potential harm to the integrity of the wider green infrastructure network, effort should be made to avoid the more ecologically valuable parts of the Site by:

- Retaining and buffering the hedges and mature trees.
- As far as possible and appropriate retaining and buffering habitats and features supporting notable/protected species, based on the results of more detailed surveys.

## Outline Mitigation

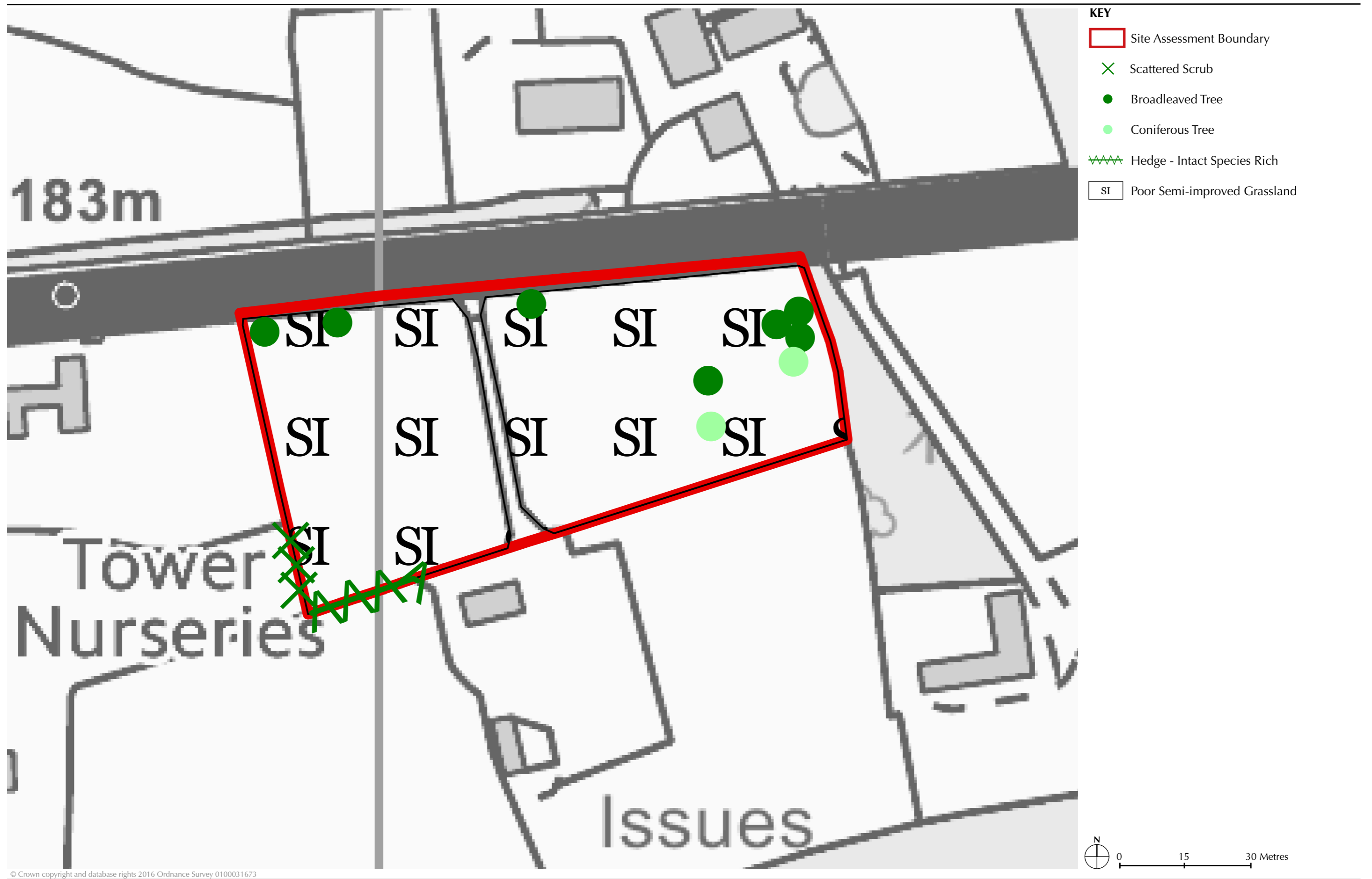
Should development at this Site proceed, generic (standard) mitigation for impacts upon habitats and species is set out below. Further detailed or species-specific mitigation may be required dependent upon the outcome of the recommended protected habitat or species surveys.

- Implementation of a Construction and Environmental Management Plan (CEMP) to manage site-specific issues relating to the potential impacts of construction on ecological features of interest.
- Timing of vegetation clearance works to avoid the bird breeding season (March – August inclusive).
- Offset buffers to protect retained habitats (minimum 10m).
- Use of protective fencing to define construction areas and protect retained habitats.
- Avoidance of night-time working wherever possible. When not possible, use directional lighting to prevent lightshed into surrounding habitats.
- Inclusion of mammal ladders or similar in any trenches left open overnight.
- Sealing of pipework overnight, to prevent animals becoming trapped.
- Defined and bunded areas for fuel storage and refuelling to prevent spillages and pollution incidents.
- On-Site spill incident equipment, in the event of spillages of fuel or other materials. Specific measures will be required if any works are close to watercourses and/or waterbodies.
- If reptiles are found to be present, measures to prevent harm to them, including potentially translocation from the development Site to a suitable receptor site. Where feasible such receptor areas should be incorporated into the new development (for example in buffer strips beside retained hedges, as noted above).
- New development may need to incorporate bat roosts as alternative or replacement habitat if roosts are likely to be lost.
- Insofar as any proposed development of the Site allows, lighting design, particularly for the periphery of the Site should be minimised as far as possible. As a minimum, any lighting along Site boundaries that may potentially form important commuting corridors (e.g. hedgerows) or adjacent woodlands that may support bat roosts should make use of backboards and/or internal louvres to ensure light is directed into the Site and light spill into the adjacent areas of retained habitat is minimised.
- If dormice are found to be present the retention and appropriate buffering of hedges (as noted above).
- Development should avoid construction works within at least 30m of the nearest badger setts and seek to avoid prime foraging grounds identified through the badger survey and severance of commuting corridors within territories.

### Potential Enhancement Opportunities

Opportunities for enhancing, restoring and/or creating new habitats as an integral part of a Site's development that can also contribute to the District's wider ecological /green infrastructure network are identified below:

- Positively and appropriately manage retained habitats and features, including hedges and mature trees.
- Planting of appropriate native species to strengthen boundary vegetation, for example on the eastern, western and southern boundaries.
- Habitat creation, ideally located adjacent to retained or adjoining habitat or to form habitat corridors or links, to include for example:
  - Wildlife pond(s), included for example as part of a SuDS scheme;
  - Species-rich grassland and associated features for supporting a variety of terrestrial invertebrates;
  - Scrub and trees; and
  - Creation of dead wood habitats and other habitat piles.
- Erection of bat boxes suitable for a range of bat species, on retained trees or incorporated into buildings where they will remain unlit.
- Erection of bird boxes suitable for a range of bird species on retained trees or incorporated into buildings.
- Incorporate features to SuDS scheme(s), such as the use of native wetland plant species, to enhance their value.



ECOLOGICAL ASSESSMENT	
<b>Settlement/Area:</b>	Heathfield
<b>Site Address:</b>	Parklands, Burwash Road, Heathfield
<b>Site Reference Number:</b>	275/1210
Site Summary Description	
A 0.8ha Site comprising a relatively species-poor grassland field, pig enclosure, house and garden.	
ECOLOGICAL BASELINE	
Green Infrastructure Context (see Figure 21.1)	
<p>The Site is located within the broader High Weald landscape of small to medium sized fields, including both grassland and arable, set within a relatively extensive and intact hedgerow network which includes frequent trees. Woodland, including Ancient Woodland, is relatively plentiful and includes both large and small parcels. The Site lies on the north eastern edge of Heathfield, to the south of Burwash Road. To the north there is a small area of grassland with trees and hedges. There are some commercial and residential properties alongside Burwash Road but also open countryside comprising fields with hedges and areas of woodland. Heathfield Park lies immediately to the south and south east. This supports relatively extensive areas of Deciduous Woodland, including Ancient Woodland, and Wood Pasture and Parkland BAP Priority Habitats (see Desk Study: BAP Priority Habitats). Part of this is also designated SSSI (see Desk Study: Designated Sites and <b>Figure 21.2</b>).</p>	
Desk Study: Designated Sites within 1km (see Figure 21.2)	Distance from Site
<ul style="list-style-type: none"> <li>The Site lies approximately 60m north to the nearest point of <b>Heathfield Park SSSI</b>. The Citation states: <i>"This Site is an example of an ancient Wealden Gill woodland formed by the vigorous downcutting of a stream into the Ashdown Sand series of the Hastings Beds. A number of 'Atlantic' plants, uncommon in the south-east, are present and the lichen flora is also notable ... The woodland is dominated by mature beech Fagus sylvatica with both pedunculate and sessile oak Quercus robur and Q. petraea, holly Ilex aquifolium and scattered yew Taxus baccata. In the north and east birch Betula spp. becomes frequent and the stream valleys contain willow Salix spp. and alder Alnus glutinosa ... Continuous woodland cover in this sheltered Gill provides a moist, mild microclimate and a number of plant species occur here which are otherwise restricted to western counties, including Cornish moneywort Sibthorpia europaea, hay-scented buckler-fern Dryopteris aemula and the liverwort Frullania tamarisci. The Site is also of county importance for lichens: a total of 76 species have been recorded here ... The lakes add to the value of the Site for dragonflies and birds."</i></li> </ul>	<ul style="list-style-type: none"> <li>60m South of the Site.</li> </ul>
Desk Study: BAP Priority Habitats within 1km	Distance from Site
<ul style="list-style-type: none"> <li>Ancient &amp; semi-natural woodland – Oaken Wood</li> <li>Ancient &amp; semi-natural woodland – Markly Wood ext</li> <li>Ancient &amp; semi-natural woodland – Heathfield Park</li> <li>Ancient &amp; semi-natural woodland – Black Wood</li> <li>Wood Pasture &amp; Parkland BAP priority habitat (part of Heathfield Park SSSI)</li> </ul>	<ul style="list-style-type: none"> <li>370m North</li> <li>620m North West</li> <li>Adjacent South</li> <li>740m North East</li> <li>150m South West</li> </ul>

## Desk Study: Protected and Notable Species within 1km

### Protected Species

*Myotis nattereri*

Natterer's bat

### Sussex BAP Species

*Acronicta rumicis*

Knot Grass (moth)

*Agrochola lychnidis*

Beaded Chestnut (moth)

*Allophyes oxyacanthae*

Green-brindled Crescent (moth)

*Amphipyra tragopoginis*

Mouse Moth (moth)

*Apamea remissa*

Dusky Brocade (moth)

*Asteroscopus sphinx*

Sprawler (moth)

*Brachylomia viminalis*

Minor Shoulder-knot (moth)

*Ecliptopera silaceata*

Small Phoenix (moth)

*Ennomos fuscantaria*

Dusky Thorn (moth)

*Eugnorisma glareosa*

Autumnal Rustic (moth)

*Hemistola chrysoprasaria*

Small Emerald (moth)

*Hydraecia micacea*

Rosy Rustic (moth)

*Limenitis camilla*

White admiral

*Lycia hirtaria*

Brindled Beauty (moth)

*Melanchra persicariae*

Dot moth (moth)

*Mesoligia literosa*

Rosy Minor (moth)

*Spilosoma luteum*

Buff Ermine (moth)

*Tholera decimalis*

Feathered Gothic (moth)

*Timandra comae*

Blood-Vein (moth)

*Tyria jacobaeae*

Cinnabar (moth)

*Watsonalla binaria*

Oak Hook-tip (moth)

*Xanthia icteritia*

Sallow (moth)

### Sussex Rare Species Inventory

*Buxus sempervirens*

Box

*Calamotropha paludella*

Bulrush veneer (moth)

*Chloroclysta siterata*

Red-green Carpet (moth)

*Eilema sororcula*

Orange Footman (moth)

*Eleogiton fluitans*

Floating Club-rush

*Furcula bicuspis*

Alder Kitten (moth)

*Globia sparganii*

Webb's Wainscot (moth)

*Hadena compta*

Varied Coronet (moth)

*Mythimna l-album*

L-album Wainscot (moth)

*Parascotia fuliginaria*

Waved Black (moth)

*Selenia lunularia*

Lunar Thorn (moth)

*Sibthorpia europaea*

Cornish Moneywort

*Somatochlora metallica*

Brilliant emerald

*Tetheella fluctuosa*

Satin Lutestring (moth)

*Thera cypressata*

Cypress carpet (moth)

### Notable Bird Inventory

*Apus apus*

Swift

*Ardea cinerea*

Grey heron

*Delichon urbicum*

House martin

*Hirundo rustica*

Swallow

*Tyto alba*

Barn owl

**Invasive Alien Species Inventory**

<i>Allium triquetrum</i>	Three-cornered garlic
<i>Campylopus introflexus</i>	Heath Star Moss
<i>Centranthus ruber</i>	Red valerian
<i>Cotoneaster simonsii</i>	Himalayan cotoneaster
<i>Crocsmia pottsii</i> x <i>aurea</i> = <i>C. x crocosmiiflora</i>	Montbretia
<i>Fallopia japonica</i>	Japanese Knotweed
<i>Harmonia axyridis</i>	Harlequin Ladybird
<i>Hyacinthoides non-scripta</i> x <i>hispanica</i> (= <i>H. x massartiana</i> )	Hybrid bluebell
<i>Lamiastrum galeobdolon</i> subsp. <i>Argentatum</i>	Variegated yellow archangel
<i>Petasites fragrans</i>	Winter heliotrope
<i>Prunus laurocerasus</i>	Cherry laurel
<i>Rhododendron ponticum</i>	Rhododendron

**Field Survey: Habitat Descriptions (see Figure 21/275)**

**Poor semi-improved grassland** – The grassland appears to be unmanaged and comprises a quite coarse sward approximately 20cm in height. It appears rather species poor in which the dominant grasses are Yorkshire fog *Holcus lanatus* and common bent *Agrostis capillaris*, with perennial rye-grass *Lolium perenne* occasional. Soft rush *Juncus effusus* is frequent/abundant at the lower part of the slope. Forb cover is quite low, with the most frequent and abundant species being creeping and meadow buttercup *Ranunculus repens* and *acris* and bird's foot trefoil *Lotus corniculatus*. Creeping thistle *Cirsium arvense* and broadleaved dock *Rumex obtusifolius* are frequent. There is a small area of similar but more frequently mown grassland within the garden.

**Amenity grassland** – Comprising typical and common and widespread species within the garden.

**Tall ruderal** – Comprising largely of nettle and associated species in the south west of the Site.

**Ephemeral/short perennial** – an area of disturbed and sparse vegetation in a pig pen in the south west of the Site.

**Trees and shrubs** – Mostly small non-native within the garden. There is a large fallen and dead tree among the grassland.

**Buildings** – House with tiled and pitched roof.

**Field Survey: Protected and Notable Species**

No species considered notable for their nature conservation value recorded during the Phase I habitat field survey.

**Field Survey: Invasive Non-native Species**

No invasive non-native species recorded within the Site.

**Assessment of Potential for Protected and Notable Species**

**Great crested newts** – There are no ponds within the Site. However, OS maps indicate the presence of ponds to the north of the A265 Burwash Road, approximately 80m from the Site and beside Gibraltar Tower within Heathfield Park, approximately 320m to the south west. However, recent aerial images suggest the pond to the north may no longer exist and the A265 Burwash Road also represents a significant barrier to dispersal of great crested newts from the north. Suitable terrestrial habitat appears widespread adjacent to the pond to the south but within the Site is limited to hedges. Therefore the probability of great crested newts being present within the Site is considered to be very low.

**Reptiles** – Potential especially beside boundaries.

**Breeding birds** – In hedges, trees and shrubs.

**Bats** – The house may have potential to be used as a roost by bats. Trees within the Site appeared to have low potential to be used as roosts. Given the habitats and features present and the Sites location activity, including foraging and commuting, is likely throughout, but especially around woodland, hedges and trees.

**Badgers** – Potential for setts within the hedgerow and adjoining woodland, but with or without setts badgers may also use any or the entire Site for foraging. However, neither setts nor foraging signs are recorded during the survey.

#### Recommendations for Further Survey (and optimal survey timings)

**Reptiles** – (May – June, September – October) in suitable habitat throughout the Site.

**Bats** – (inspections: year round; activity surveys April – October) in the first instance inspection of house and trees to determine the scope for further survey and activity surveys.

**Badgers** – (Year round but Spring / Autumn optimal) of Site and immediately adjoining woodland.

#### INDICATIVE ECOLOGICAL APPRAISAL

**Low to Moderate value** – a small Site comprising relatively species poor grassland, house and garden. The Sites proximity to Heathfield Park, which supports relatively extensive areas of BAP Priority habitat, part of which is designated SSSI, increases its value and sensitivity.

The Sites habitats and features have low potential to be used by notable/protected species.

#### Impact Avoidance

In order to limit, as far as possible, potentially adverse effects of development including potential harm to the integrity of the wider green infrastructure network, effort should be made to avoid the more ecologically valuable parts of the Site by:

- Buffering adjoining Ancient Woodland to south.
- Retaining and buffering hedgerow on the western boundary.
- As far as possible and appropriate retaining and buffering habitats and features supporting notable/protected species, based on the results of more detailed surveys.

#### Outline Mitigation

Should development at this Site proceed, generic (standard) mitigation for impacts upon habitats and species is set out below. Further detailed or species-specific mitigation may be required dependent upon the outcome of the recommended protected habitat or species surveys.

- Implementation of a Construction and Environmental Management Plan (CEMP) to manage site-specific issues relating to the potential impacts of construction on ecological features of interest.
- Timing of vegetation clearance works to avoid the bird breeding season (March – August inclusive).
- Offset buffers to protect retained habitats (minimum 10m).
- Use of protective fencing to define construction areas and protect retained habitats.
- Avoidance of night-time working wherever possible. When not possible, use directional lighting to prevent lightshed into surrounding habitats.
- Inclusion of mammal ladders or similar in any trenches left open overnight.
- Sealing of pipework overnight, to prevent animals becoming trapped.
- Defined and bunded areas for fuel storage and refuelling to prevent spillages and pollution incidents.
- On-Site spill incident equipment, in the event of spillages of fuel or other materials. Specific measures will be required if any works are close to watercourses and/or waterbodies.
- If reptiles are found to be present, measures to prevent harm to them, including potentially translocation from the development Site to a suitable receptor site. Where feasible such receptor areas should be incorporated into the new development (for example in buffer strips beside retained hedges, as noted above).
- New development may need to incorporate bat roosts as alternative or replacement habitat if roosts are likely to be lost.

- Insofar as any proposed development of the Site allows, lighting design, particularly for the periphery of the Site should be minimised as far as possible. As a minimum, any lighting along Site boundaries that may potentially form important commuting corridors (e.g. hedgerows) or adjacent woodlands that may support bat roosts should make use of backboards and/or internal louvres to ensure light is directed into the Site and light spill into the adjacent areas of retained habitat is minimised.
- Development should avoid construction works within at least 30m of the nearest badger setts and seek to avoid prime foraging grounds identified through the badger survey and severance of commuting corridors within territories.

### **Potential Enhancement Opportunities**

Opportunities for enhancing, restoring and/or creating new habitats as an integral part of a Site's development that can also contribute to the District's wider ecological /green infrastructure network are identified below:

- Positively and appropriately manage retained habitats and features, including hedgerow.
- Planting of appropriate native species to strengthen boundary vegetation, for example to extend the hedge on the western boundary and along the northern and eastern boundaries.
- Habitat creation, ideally located adjacent to retained or adjoining habitat or to form habitat corridors or links, to include for example:
  - Wildlife pond(s), included for example as part of a SuDS scheme;
  - Species-rich grassland and associated features for supporting a variety of terrestrial invertebrates;
  - Scrub and trees; and
  - Creation of dead wood habitats and other habitat piles.
- Erection of bat boxes suitable for a range of bat species, on retained trees or incorporated into buildings where they will remain unlit.
- Erection of bird boxes suitable for a range of bird species on retained trees or incorporated into buildings.
- Incorporate features to SuDS scheme(s), such as the use of native wetland plant species, to enhance their value.



ECOLOGICAL ASSESSMENT	
<b>Settlement/Area:</b>	Heathfield
<b>Site Address:</b>	15, Tower Street, Heathfield
<b>Site Reference Number:</b>	299/1210
Site Summary Description	
A 1.15ha Site comprising an unmanaged grassland field with widespread scrub and hedges and a large stand of the invasive non-native Japanese knotweed, a small area of woodland, including mature trees and house and garden.	
ECOLOGICAL BASELINE	
Green Infrastructure Context (see Figure 21.1)	
<p>The Site is located within the broader High Weald landscape of small to medium sized fields, including both grassland and arable, set within a relatively extensive and intact hedgerow network which includes frequent trees. Woodland, including Ancient Woodland, is relatively plentiful and includes both large and small parcels. The Site lies on the north eastern edge of Heathfield, east of Tower Street. To the west is a residential area of Heathfield. To the north and north east there are further residential properties set within larger areas of grassland and hedges with small areas of woodland and trees. There are some commercial and residential properties alongside Burwash Road but also open countryside comprising fields with hedges and areas of woodland. Heathfield Park lies immediately to the south. This supports relatively extensive areas of Deciduous Woodland, including Ancient Woodland, and Wood Pasture and Parkland BAP Priority Habitats (see Desk Study: BAP Priority Habitats). Part of this is also designated SSSI (see Desk Study: Designated Sites and <b>Figure 21.2</b>).</p>	
Desk Study: Designated Sites within 1km (see Figure 21.2)	Distance from Site
<ul style="list-style-type: none"> <li>The Site lies approximately 100m north west to the nearest point of <b>Heathfield Park SSSI</b>. The Citation states: <i>"This Site is an example of an ancient Wealden Gill woodland formed by the vigorous downcutting of a stream into the Ashdown Sand series of the Hastings Beds. A number of 'Atlantic' plants, uncommon in the south-east, are present and the lichen flora is also notable ... The woodland is dominated by mature beech Fagus sylvatica with both pedunculate and sessile oak Quercus robur and Q. petraea, holly Ilex aquifolium and scattered yew Taxus baccata. In the north and east birch Betula spp. becomes frequent and the stream valleys contain willow Salix spp. and alder Alnus glutinosa ... Continuous woodland cover in this sheltered Gill provides a moist, mild microclimate and a number of plant species occur here which are otherwise restricted to western counties, including Cornish moneywort Sibthorpia europaea, hay-scented buckler-fern Dryopteris aemula and the liverwort Frullania tamarisci. The Site is also of county importance for lichens: a total of 76 species have been recorded here ... The lakes add to the value of the Site for dragonflies and birds."</i></li> </ul>	<ul style="list-style-type: none"> <li>100m South East of the Site.</li> </ul>
Desk Study: BAP Priority Habitats within 1km	Distance from Site
<ul style="list-style-type: none"> <li>Ancient &amp; semi-natural woodland – Oaken Wood</li> <li>Ancient &amp; semi-natural woodland – Markly Wood ext</li> <li>Ancient &amp; semi-natural woodland – Heathfield Park</li> </ul>	<ul style="list-style-type: none"> <li>400m North</li> <li>600m North West</li> <li>Adjacent South</li> </ul>

<ul style="list-style-type: none"> <li>• Ancient &amp; semi-natural woodland – Black Wood</li> <li>• Wood Pasture &amp; Parkland BAP priority habitat (part of Heathfield Park SSSI)</li> </ul>	<ul style="list-style-type: none"> <li>• 780m North East</li> <li>• Adjacent South</li> </ul>
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### Desk Study: Protected and Notable Species within 1km

#### Protected Species

*Myotis nattereri*

Natterer's bat

#### Sussex BAP Species

*Acronicta rumicis*

Knot Grass (moth)

*Agrochola lychnidis*

Beaded Chestnut (moth)

*Allophyes oxyacanthae*

Green-brindled Crescent (moth)

*Amphipyra tragopoginis*

Mouse Moth (moth)

*Apamea remissa*

Dusky Brocade (moth)

*Asteroscopus sphinx*

Sprawler (moth)

*Brachylochia viminalis*

Minor Shoulder-knot (moth)

*Ecliptopera silaceata*

Small Phoenix (moth)

*Ennomos fuscantaria*

Dusky Thorn (moth)

*Eugnorisma glareosa*

Autumnal Rustic (moth)

*Hemistola chrysoprasaria*

Small Emerald (moth)

*Hydraecia micacea*

Rosy Rustic (moth)

*Limenitis camilla*

White admiral

*Lycia hirtaria*

Brindled Beauty (moth)

*Melanchra persicariae*

Dot moth (moth)

*Mesoligia literosa*

Rosy Minor (moth)

*Spilosoma luteum*

Buff Ermine (moth)

*Tholera decimalis*

Feathered Gothic (moth)

*Timandra comae*

Blood-Vein (moth)

*Tyria jacobaeae*

Cinnabar (moth)

*Watsonalla binaria*

Oak Hook-tip (moth)

*Xanthia icteritia*

Sallow (moth)

#### Sussex Rare Species Inventory

*Buxus sempervirens*

Box

*Calamotropha paludella*

Bulrush veneer (moth)

*Chloroclysta siterata*

Red-green Carpet (moth)

*Eilema sororcula*

Orange Footman (moth)

*Eleogiton fluitans*

Floating Club-rush

*Furcula bicuspis*

Alder Kitten (moth)

*Globia sparganii*

Webb's Wainscot (moth)

*Hadena compta*

Varied Coronet (moth)

*Mythimna l-album*

L-album Wainscot (moth)

*Parascotia fuliginaria*

Waved Black (moth)

*Selenia lunularia*

Lunar Thorn (moth)

*Sibthorpia europaea*

Cornish Moneywort

*Somatochlora metallica*

Brilliant emerald

*Tetheella fluctuosa*

Satin Lutestring (moth)

*Thera cupressata*

Cypress carpet (moth)

#### Notable Bird Inventory

*Apus apus*

Swift

*Ardea cinerea*

Grey heron

*Delichon urbicum*

House martin

*Hirundo rustica*

Swallow

*Tyto alba*

Barn owl

### Invasive Alien Species Inventory

<i>Allium triquetrum</i>	Three-cornered garlic
<i>Campylopus introflexus</i>	Heath Star Moss
<i>Centranthus ruber</i>	Red valerian
<i>Cotoneaster simonsii</i>	Himalayan cotoneaster
<i>Crocsmia pottsii</i> x <i>aurea</i> = <i>C. x crocosmiiflora</i>	Montbretia
<i>Fallopia japonica</i>	Japanese Knotweed
<i>Harmonia axyridis</i>	Harlequin Ladybird
<i>Hyacinthoides non-scripta</i> x <i>hispanica</i> (= <i>H. x massartiana</i> )	Hybrid bluebell
<i>Lamiastrum galeobdolon</i> subsp. <i>Argentatum</i>	Variegated yellow archangel
<i>Petasites fragrans</i>	Winter heliotrope
<i>Prunus laurocerasus</i>	Cherry laurel
<i>Rhododendron ponticum</i>	Rhododendron

### Field Survey: Habitat Descriptions (see Figure 21/299)

**Poor semi-improved grassland** – Unmanaged and tussocky and rather species poor. Yorkshire fog *Holcus lanatus* and common bent *Agrostis capillaris* are the most abundant grasses, but sweet vernal grass *Anthoxanthum odoratum* and false oat grass *Arrhenatherum elatius* are occasional. Forb cover is relatively low but includes frequent common sorrel *Rumex acetosa*, greater bird's foot trefoil *Lotus pedunculatus* and occasional creeping buttercup *Ranunculus repens*, common ragwort *Senecio jacobaea* and common knapweed *Centaurea nigra*.

**Tall ruderal/invasive non-native** – There is a large stand of invasive non-native Japanese knotweed on the southern edge of the grassland field at **TN1**.

**Woodland** – Comprises a mix of native and non-native species, including sycamore, spruce, pine, sweet chestnut, beech, yew, giant redwood and lime, and includes mature specimens, for example a multi-stemmed beech (probably laid in the past) on the bank between the woodland and field. The field layer appears to be quite species poor, comprising largely of bramble, nettle and ivy, though bluebell *Hyacinthoides non-scripta*, wood sage *Teucrium scorodonia* and male fern *Dryopteris filix-mas* are present. As noted there is a prominent bank in the western part of the boundary between the woodland and the field. This also supports red campion *Silene dioica*, tutsan *Hypericum androsaemum* and broad buckler fern *Dryopteris dilatata*.

**Trees and scrub** – There are native and non-native trees within the garden area and along its boundaries to north and south, including beech, birch, spruce and cypress.

A large part of the edges of the field supports dense scrub of bramble with frequent developing trees and shrubs, especially oaks. There is also scattered scrub throughout the grassland.

**Hedges** – around the field are species rich, including hawthorn, hazel, hornbeam and holly.

**Garden** – in addition to the trees noted above the garden includes areas of species poor amenity and poor semi-improved grassland as well as planted beds and borders and cultivated areas.

**Buildings** – a single storey house with pitched and tiled roof.

### Field Survey: Protected and Notable Species

No species considered notable for their nature conservation value recorded during the Phase I habitat field survey.

### Field Survey: Invasive Non-native Species

- Large stand of Japanese knotweed at **TN1**.
- Cherry laurel is present in the woodland.

## Assessment of Potential for Protected and Notable Species

**Great crested newts** – There are no ponds within the Site. However, OS maps indicate the presence of ponds to the north of the A265 Burwash Road, approximately 130m from the Site and beside Gibraltar Tower within Heathfield Park, approximately 190m to the south. However, recent aerial images suggest the pond to the north may no longer exist and the A265 Burwash Road also represents a significant barrier to dispersal of great crested newts from the north. Woodland and hedges represent suitable terrestrial habitat for great crested newts within the Site.

**Reptiles** – High potential within the field.

**Breeding birds** – In woodland, hedges, trees and scrub.

**Bats** – Trees and mature trees in particular, with features such as cracks and cavities, for example those in the woodland, have potential to be used as roosts. The house appears to have low potential for bat roosts. Given the habitats and features present activity, including foraging and commuting, is likely throughout.

**Dormice** – Given the connectivity to large areas of adjoining woodland high potential in woodland, scrub and hedges.

**Badgers** – Potential for setts within the woodland, scrub and hedgerows, but with or without setts badgers may also use any or the entire Site for foraging. However, neither setts nor foraging signs are recorded during the survey.

## Recommendations for Further Survey (and optimal survey timings)

**Amphibian (including great crested newt)** – (March – June) of the pond to the south of the Site.

**Reptiles** – (May – June, September – October) in suitable habitat.

**Breeding birds** – (April – June) especially woodland, scrub, and hedges.

**Bats** – (inspections: year round; activity surveys April – October) in the first instance inspection of trees to determine the scope for further survey and activity surveys.

**Dormice** – (April – November) in suitable habitat, including immediately adjoining woodland.

**Badgers** – (Year round but Spring / Autumn optimal) of whole Site and immediately adjoining woodland.

## INDICATIVE ECOLOGICAL APPRAISAL

**Moderate value** – the woodland and species-rich hedges in particular are of moderate value and are well connected to adjoining habitats, especially in Heathfield Park.

The Site's adjacency to Heathfield Park, including Ancient Woodland and SSSI increases its value and sensitivity. The Site's habitats and features have high potential to support notable/protected species.

## Impact Avoidance

In order to limit, as far as possible, potentially adverse effects of development including potential harm to the integrity of the wider green infrastructure network, effort should be made to avoid the more ecologically valuable parts of the Site by:

- Retaining and buffering the woodland and hedges.
- As far as possible and appropriate retaining and buffering habitats and features supporting notable/protected species, based on the results of more detailed surveys.

## Outline Mitigation

Should development at this Site proceed, generic (standard) mitigation for impacts upon habitats and species is set out below. Further detailed or species-specific mitigation may be required dependent upon the outcome of the recommended protected habitat or species surveys.

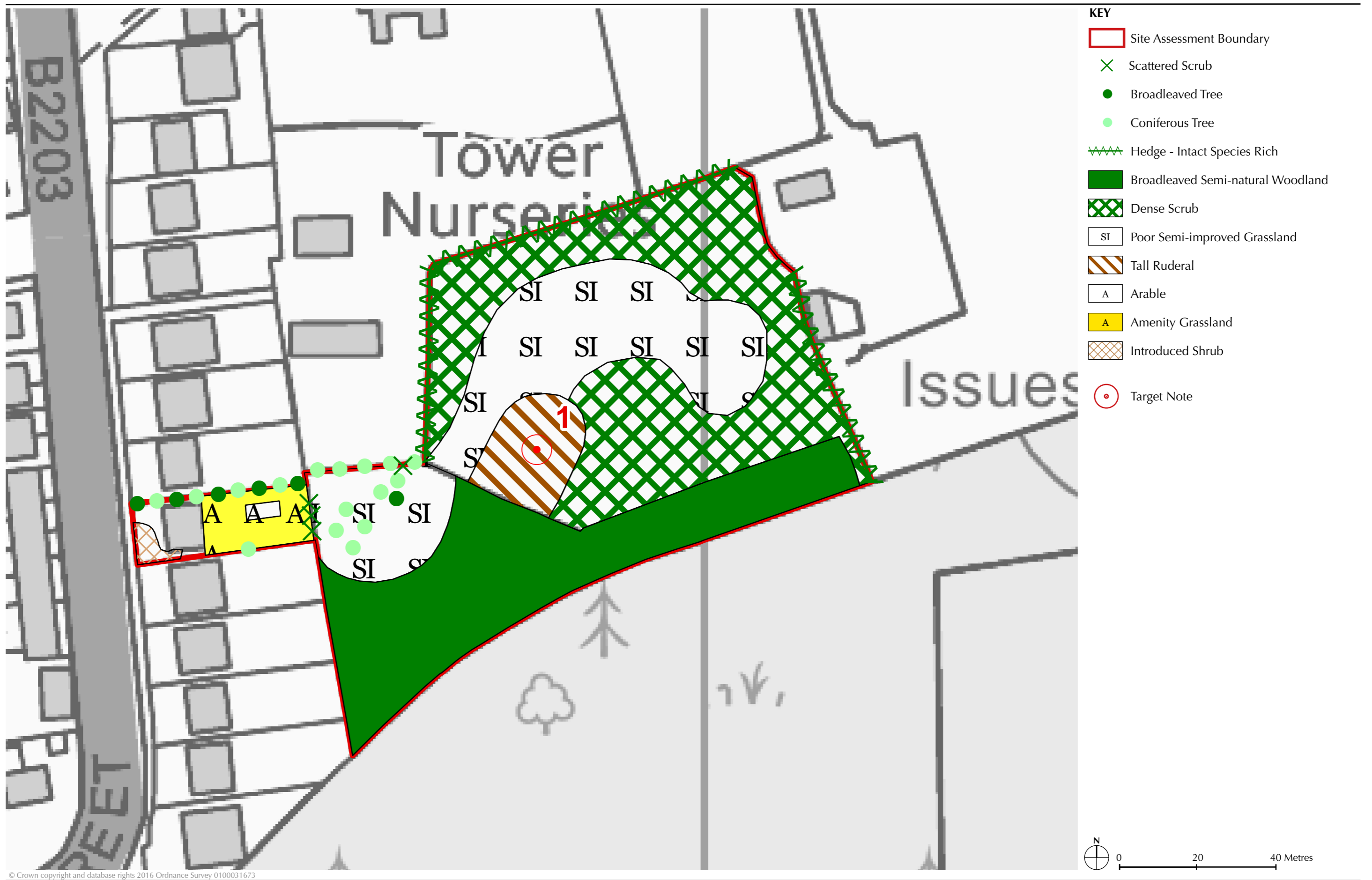
- Implementation of a Construction and Environmental Management Plan (CEMP) to manage site-specific issues relating to the potential impacts of construction on ecological features of interest.
- Timing of vegetation clearance works to avoid the bird breeding season (March – August inclusive).

- Offset buffers to protect retained habitats (minimum 10m).
- Use of protective fencing to define construction areas and protect retained habitats.
- Avoidance of night-time working wherever possible. When not possible, use directional lighting to prevent lightshed into surrounding habitats.
- Inclusion of mammal ladders or similar in any trenches left open overnight.
- Sealing of pipework overnight, to prevent animals becoming trapped.
- Defined and bunded areas for fuel storage and refuelling to prevent spillages and pollution incidents.
- On-Site spill incident equipment, in the event of spillages of fuel or other materials. Specific measures will be required if any works are close to watercourses and/or waterbodies.
- If great crested newts are found in the pond to the south of the Site appropriate measures will need to be put in place to prevent harm to them during their terrestrial phase, for example herp fencing the development Site and possibly trapping and translocation to a suitable receptor site.
- If reptiles are found to be present, measures to prevent harm to them, including potentially translocation from the development Site to a suitable receptor site. Where feasible such receptor areas should be incorporated into the new development (for example in buffer strips beside retained hedges, as noted above).
- New development may need to incorporate bat roosts as alternative or replacement habitat if roosts are likely to be lost.
- Insofar as any proposed development of the Site allows, lighting design, particularly for the periphery of the Site should be minimised as far as possible. As a minimum, any lighting along Site boundaries that may potentially form important commuting corridors (e.g. hedgerows) or adjacent woodlands that may support bat roosts should make use of backboards and/or internal louvres to ensure light is directed into the Site and light spill into the adjacent areas of retained habitat is minimised.
- If dormice are found to be present the retention and appropriate buffering of hedges and woodland (as noted above).
- Development should avoid construction works within at least 30m of the nearest badger setts and seek to avoid prime foraging grounds identified through the badger survey and severance of commuting corridors within territories.
- Control of invasive non-native Japanese knotweed in line with Environment Agency guidelines.

### Potential Enhancement Opportunities

Opportunities for enhancing, restoring and/or creating new habitats as an integral part of a Site's development that can also contribute to the District's wider ecological /green infrastructure network are identified below:

- Positively and appropriately manage retained habitats and features, including woodland and hedgerows.
- Planting of appropriate native species to strengthen boundary vegetation, for example to join the hedges on the northern and eastern boundaries.
- Habitat creation, ideally located adjacent to retained or adjoining habitat, for example in a corner of the field, or to form habitat corridors or links. To include for example:
  - Wildlife pond(s), included for example as part of a SuDS scheme;
  - Species-rich grassland and associated features for supporting a variety of terrestrial invertebrates;
  - Scrub and trees; and
  - Creation of dead wood habitats and other habitat piles.
- Erection of bat boxes suitable for a range of bat species, on retained trees or incorporated into buildings where they will remain unlit.
- Erection of bird boxes suitable for a range of bird species on retained trees or incorporated into buildings.
- Incorporate features to SuDS scheme(s), such as the use of native wetland plant species, to enhance their value.



ECOLOGICAL ASSESSMENT																	
<b>Settlement/Area:</b>	Heathfield																
<b>Site Address:</b>	Land to the rear of Rothershaw, Heathfield																
<b>Site Reference Number:</b>	525/1210																
Site Summary Description																	
A 1.39ha Site comprising a species poor grassland field, species rich hedge, trees and scrub, including both native and non-native species and mature specimens, and bracken. Also includes part of a garden area with derelict sheds, amenity grassland, scrub and tall ruderal and an access drive with species poor hedges.																	
ECOLOGICAL BASELINE																	
Green Infrastructure Context (see Figure 21.1)																	
The Site lies on the north western edge of Heathfield, to the north of the A265, on the edge of a residential area to the south. On its northern boundary the Site adjoins the extensive Markly Wood, which includes both Ancient Woodland and plantation. The Site is located within the broader High Weald landscape of small to medium sized fields, including both grassland and arable, set within a relatively extensive and intact hedgerow network which includes frequent trees. Woodland, including Ancient Woodland, is relatively plentiful and includes both large and small parcels.																	
Desk Study: Designated Sites within 1km (see Figure 21.2)	Distance from Site																
<ul style="list-style-type: none"> <li>None</li> </ul>																	
Desk Study: BAP Priority Habitats within 1km	Distance from Site																
<ul style="list-style-type: none"> <li>Ancient &amp; semi-natural woodland – Markly Wood</li> <li>Ancient &amp; semi-natural woodland – Coalend / Button / Dunley Woods</li> <li>Ancient &amp; semi-natural woodland – Heatherden Wood</li> <li>Ancient &amp; semi-natural woodland – Holman’s Wood</li> <li>Ancient &amp; semi-natural woodland – Runtington / Crock-kiln / Geer’s Woods</li> <li>Ancient &amp; semi-natural woodland – Markly Wood ext.</li> <li>Lowland Heathland BAP priority habitat (6 areas, un-named)</li> <li>Deciduous Woodland BAP priority habitat</li> </ul>	<ul style="list-style-type: none"> <li>Within Site</li> <li>725m WNW</li> <li>530m South West</li> <li>975m SSW</li> <li>840m South</li> <li>400m North East</li> <li>375-950m NE – NW</li> <li>Within Site</li> </ul>																
Desk Study: Protected and Notable Species within 1km																	
<table> <tr> <td><b>Protected Species</b></td><td></td></tr> <tr> <td><i>Myotis nattereri</i></td><td>Natterer’s bat</td></tr> <tr> <td><i>Pipistrellus pipistrellus</i></td><td>Common Pipistrelle (45 kHz) bat</td></tr> <tr> <td><i>Plecotus auritus</i></td><td>Brown Long-eared bat</td></tr> <tr> <td><b>Sussex BAP Species</b></td><td></td></tr> <tr> <td><i>Bufo bufo</i></td><td>Common toad</td></tr> <tr> <td><i>Erinaceus europaeus</i></td><td>European hedgehog</td></tr> <tr> <td><i>Limenitis camilla</i></td><td>White admiral</td></tr> </table>		<b>Protected Species</b>		<i>Myotis nattereri</i>	Natterer’s bat	<i>Pipistrellus pipistrellus</i>	Common Pipistrelle (45 kHz) bat	<i>Plecotus auritus</i>	Brown Long-eared bat	<b>Sussex BAP Species</b>		<i>Bufo bufo</i>	Common toad	<i>Erinaceus europaeus</i>	European hedgehog	<i>Limenitis camilla</i>	White admiral
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<b>Sussex Rare Species Inventory</b>	
<i>Somatochlora metallica</i>	Brilliant emerald
<b>Notable Bird Inventory</b>	
<i>Ardea cinerea</i>	Grey heron
<i>Corvus corax</i>	Raven
<i>Phylloscopus sibilatrix</i>	Wood warbler
<b>Invasive Alien Species Inventory</b>	
<i>Allium triquetrum</i>	Three-cornered garlic
<i>Cotoneaster horizontalis</i>	Wall cotoneaster
<i>Crocasmia pottsii</i> x <i>aurea</i> = <i>C. x crocosmiiflora</i>	Montbretia
<i>Fallopia japonica</i>	Japanese Knotweed
<i>Gaultheria shallon</i>	Shallon
<i>Harmonia axyridis</i>	Harlequin Ladybird
<i>Impatiens glandulifera</i>	Indian balsam
<i>Prunus laurocerasus</i>	Cherry laurel
<i>Rhododendron ponticum</i>	Rhododendron
<b>Field Survey: Habitat Descriptions (see Figure 21/525)</b>	
<p><b>Poor semi-improved grassland</b> – The grassland within the field and the ‘wooded’ area to the north is species poor. It is unmanaged and comprises a variable sward but moderately tall sward. Yorkshire fog <i>Holcus lanatus</i> and common bent <i>Agrostis capillaris</i> are the most abundant grasses, but sweet vernal grass <i>Anthoxanthum odoratum</i> red fescue <i>Festuca rubra</i> and small cat’s tail, <i>Phleum bertolonii</i> are also present and soft rush <i>Juncus effusus</i> is locally abundant. Forb cover is relatively low and includes ribwort plantain <i>Plantago lanceolata</i>, common sorrel <i>Rumex acetosa</i>, red clover <i>Trifolium pratense</i> fleabane <i>Pulicaria dysenterica</i> and marsh thistle <i>Cirsium palustre</i>. Broadleaved dock <i>Rumex obtusifolius</i>, creeping thistle <i>Cirsium arvense</i> and common ragwort <i>Senecio jacobaea</i> are occasional but locally abundant. The northern area also includes wood sedge <i>Carex sylvatica</i>, silverweed <i>Potentilla anserina</i> and tormentil <i>Potentilla erecta</i>.</p> <p><b>Bracken</b> – There are stands of bracken within the grassland and in the wooded area in the north of the Site.</p> <p><b>Tall ruderal</b> – There are stands of tall ruderal in the south east of the field and in the ‘garden’ area, immediately adjoining it, in mosaic with scrub and amenity grassland.</p> <p><b>Trees and scrub</b> – Are frequent on the western side of the Site and in the north. These include many mature trees, mostly oaks, but also birch and sweet chestnut. Also includes a number of non-native conifers. Scrub, especially bramble forms a mosaic with tall ruderal in the garden area south east of the field and there are several large poplars immediately to the south, over scrub and tall ruderal.</p> <p><b>Hedges</b> – There is a species rich hedge on the eastern boundary with hazel, holly, birch, rowan and mature oak trees.</p> <p>The hedges beside the access drive are species poor and comprise of non-native cherry laurel and privet as well as some beech, holly and hazel. The northern sections of these hedges include poplars on the western side and developing horse chestnut and hornbeam on the eastern side.</p> <p><b>Pond</b> – The Site boundary includes a large part of a pond in the north west of the Site. This is set among trees and mown grassland and has quite steep banks. It is at least 90% open water with a little yellow iris <i>Iris pseudoacorus</i> and pendulous sedge <i>Carex pendula</i> on the margins.</p>	
<b>Field Survey: Protected and Notable Species</b>	
No species considered notable for their nature conservation value recorded during the Phase I habitat field survey.	

<b>Field Survey: Invasive Non-native Species</b>
Cherry laurel – in hedges beside entrance track.
<b>Assessment of Potential for Protected and Notable Species</b>
<p><b>Great crested newts</b> – In addition to the pond within the Site OS maps indicate the presence of ponds in the woodland to the north. Apart from the most open areas in the centre of the field most of the Site supports suitable terrestrial habitat for great crested newts.</p> <p><b>Reptiles</b> – Potential throughout much of the Site.</p> <p><b>Breeding birds</b> – In hedges, trees and scrub.</p> <p><b>Bats</b> – Trees and mature trees in particular, with features such as cracks and cavities, have potential to be used as roosts. Activity, including foraging and commuting, is likely throughout.</p> <p><b>Dormice</b> – High potential in hedges and scrub due to connectivity with adjoining woodland.</p> <p><b>Badgers</b> – Potential for setts within the ‘wooded’ areas and hedge and among bracken and tall ruderal, but with or without setts badgers may also use any or the entire Site for foraging. However, neither setts nor foraging signs are recorded during the survey.</p>
<b>Recommendations for Further Survey (and optimal survey timings)</b>
<p><b>Amphibian (including great crested newt)</b> – (March – June) of the pond within the Site.</p> <p><b>Reptiles</b> – (May – June, September – October) in suitable habitat throughout the Site.</p> <p><b>Breeding birds</b> – (April – June) especially trees, scrub and hedge.</p> <p><b>Bats</b> – (inspections: year round; activity surveys April – October) in the first instance inspection of trees to determine the scope for further survey and activity surveys.</p> <p><b>Dormice</b> – (April – November) in suitable habitat.</p> <p><b>Badgers</b> – (Year round but Spring / Autumn optimal) of whole site.</p>
<b>INDICATIVE ECOLOGICAL APPRAISAL</b>
<p><b>Moderate value</b> – Although the grassland is relatively species poor species rich hedge, many mature trees and the pond are of moderate value.</p> <p>The Sites location, adjacent to the large Markly Wood, which includes areas of Ancient Woodland, increases its value and sensitivity.</p> <p>The Sites habitats and features have high potential to support notable/protected species.</p>
<b>Impact Avoidance</b>
<p>In order to limit, as far as possible, potentially adverse effects of development including potential harm to the integrity of the wider green infrastructure network, effort should be made to avoid the more ecologically valuable parts of the Site by:</p> <ul style="list-style-type: none"> <li>• Retaining and buffering the hedge on the eastern boundary including the mature trees and their features.</li> <li>• Retaining and buffering the mosaic habitat, comprising retained mature trees and scrub, as well as grassland and bracken, along the western boundary and in the northern part of the Site.</li> <li>• As far as possible and appropriate retaining and buffering habitats and features supporting notable/protected species, based on the results of more detailed surveys.</li> </ul>
<b>Outline Mitigation</b>
<p>Should development at this Site proceed, generic (standard) mitigation for impacts upon habitats and species is set out below. Further detailed or species-specific mitigation may be required dependent upon the outcome of the recommended protected habitat or species surveys.</p> <ul style="list-style-type: none"> <li>• Implementation of a Construction and Environmental Management Plan (CEMP) to manage site-</li> </ul>

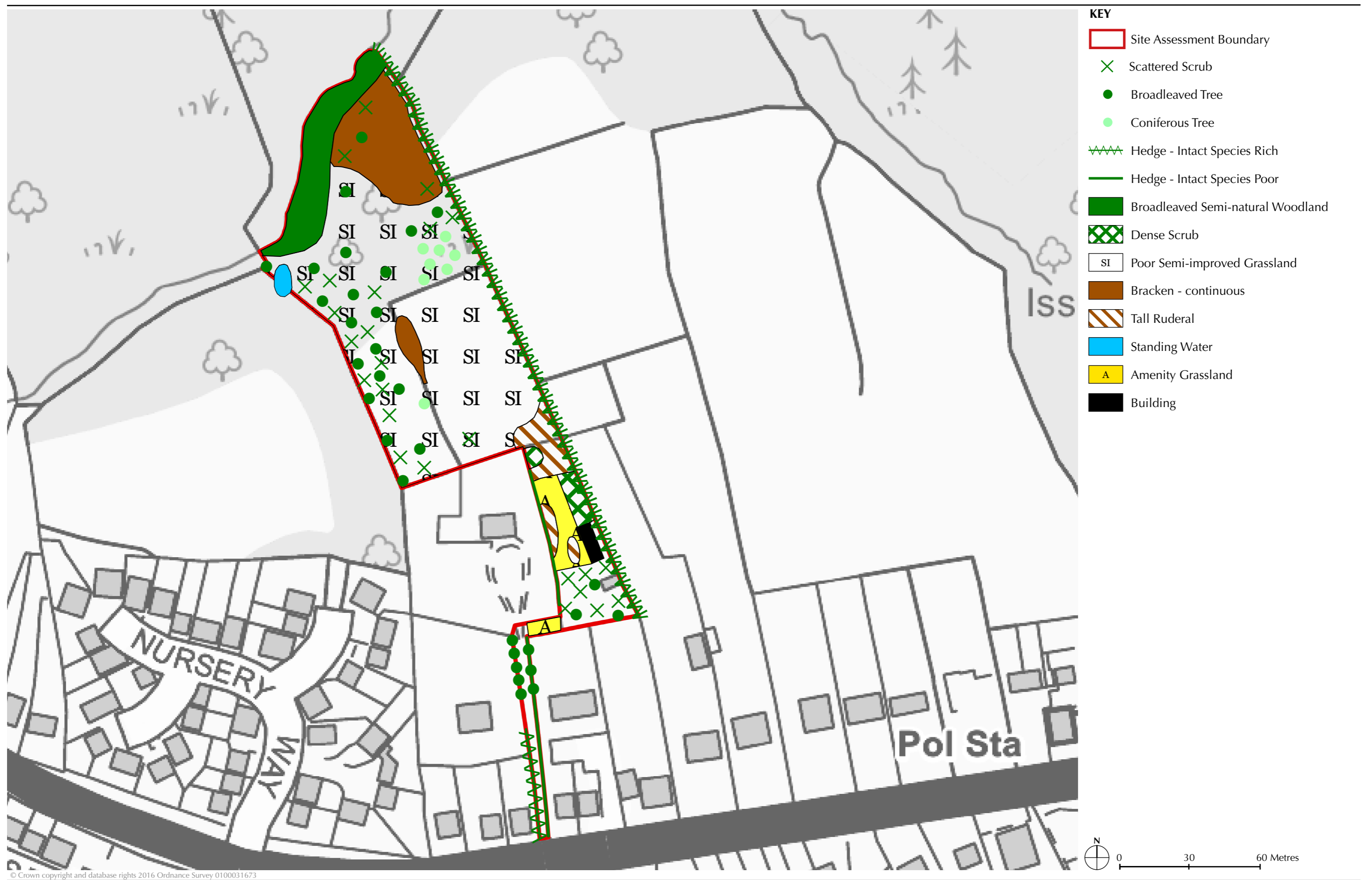
specific issues relating to the potential impacts of construction on ecological features of interest;

- Timing of vegetation clearance works to avoid the bird breeding season (March – August inclusive).
- Offset buffers to protect retained habitats (minimum 10m).
- Use of protective fencing to define construction areas and protect retained habitats;
- Avoidance of night-time working wherever possible. When not possible, use directional lighting to prevent lightshed into surrounding habitats.
- Inclusion of mammal ladders or similar in any trenches left open overnight.
- Sealing of pipework overnight, to prevent animals becoming trapped.
- Defined and bunded areas for fuel storage and refuelling to prevent spillages and pollution incidents.
- On-Site spill incident equipment, in the event of spillages of fuel or other materials. Specific measures will be required if any works are close to watercourses and/or waterbodies.
- If great crested newts are found to be present, retention of pond and sufficient area of terrestrial habitat (as part of buffer strip or other retained habitat) and other possible measures to safeguard their conservation status, under a Natural England European Protected Species licence.
- If reptiles are found to be present, measures to prevent harm to them, including potentially translocation from the development Site to a suitable receptor site. Where feasible such receptor areas should be incorporated into the new development (for example in buffer strips beside retained hedges, as noted above).
- New development may need to incorporate bat roosts as alternative or replacement habitat if roosts are likely to be lost.
- Insofar as any proposed development of the Site allows, lighting design, particularly for the periphery of the Site should be minimised as far as possible. As a minimum, any lighting along Site boundaries that may potentially form important commuting corridors (e.g. hedgerows) or adjacent woodlands that may support bat roosts should make use of backboards and/or internal louvres to ensure light is directed into the Site and light spill into the adjacent areas of retained habitat is minimised.
- If dormice are found to be present the retention and appropriate buffering of hedge and scrub (as noted above).
- Development should avoid construction works within at least 30m of the nearest badger setts and seek to avoid prime foraging grounds identified through the badger survey and severance of commuting corridors within territories.

### Potential Enhancement Opportunities

Opportunities for enhancing, restoring and/or creating new habitats as an integral part of a Site's development that can also contribute to the District's wider ecological /green infrastructure network are identified below:

- Positively and appropriately manage retained habitats and features, including the hedge and mature trees.
- Removal of non-native conifers in the northern part of the Site.
- Habitat creation, ideally located adjacent to retained or adjoining habitat, for example in the northern part of the field, or to form habitat corridors or links. To include for example:
  - Wildlife pond(s), included for example as part of a SuDS scheme;
  - Species-rich grassland and associated features for supporting a variety of terrestrial invertebrates;
  - Scrub and trees; and
  - Creation of dead wood habitats and other habitat piles.
- Erection of bat boxes suitable for a range of bat species, on retained trees or incorporated into buildings where they will remain unlit.
- Erection of bird boxes suitable for a range of bird species on retained trees or incorporated into buildings.
- Incorporate features to SuDS scheme(s), such as the use of native wetland plant species, to enhance their value.



ECOLOGICAL ASSESSMENT															
<b>Settlement/Area:</b>	Heathfield														
<b>Site Address:</b>	Rutherford, Cross-in-Hand, Heathfield														
<b>Site Reference Number:</b>	530/1210														
Site Summary Description															
A 0.26ha Site comprising a house and garden with mature oak trees on boundaries.															
ECOLOGICAL BASELINE															
Green Infrastructure Context (see Figure 21.1)															
<p>The Site lies on the north western edge of Heathfield, to the north of the A265, and forms a part of a wider residential area. To the east, west and south are residential areas, but to the north are some small fields with hedges. Beyond these, approximately 150 from the Site is the extensive Markly Wood, which includes both Ancient Woodland and plantation. The Site is located within the broader High Weald landscape of small to medium sized fields, including both grassland and arable, set within a relatively extensive and intact hedgerow network which includes frequent trees. Woodland, including Ancient Woodland, is relatively plentiful and includes both large and small parcels.</p>															
Desk Study: Designated Sites within 1km (see Figure 21.2)	Distance from Site														
<ul style="list-style-type: none"> <li>None</li> </ul>															
Desk Study: BAP Priority Habitats within 1km	Distance from Site														
<ul style="list-style-type: none"> <li>Ancient &amp; semi-natural woodland – Markly Wood</li> <li>Ancient &amp; semi-natural woodland – Coalend / Button / Dunley Woods</li> <li>Ancient &amp; semi-natural woodland – Heatherden Wood</li> <li>Ancient &amp; semi-natural woodland – Holman's Wood</li> <li>Ancient &amp; semi-natural woodland – Runtington / Crock-kiln / Geer's Woods</li> <li>Ancient &amp; semi-natural woodland – Markly Wood ext.</li> <li>Lowland Heathland BAP priority habitat (6 areas, un-named)</li> </ul>	<ul style="list-style-type: none"> <li>180m North</li> <li>725m WNW</li> <li>530m South West</li> <li>975m SSW</li> <li>840m South</li> <li>400m North East</li> <li>475-950m NE - NW</li> </ul>														
Desk Study: Protected and Notable Species within 1km															
<p><b>Protected Species</b></p> <table> <tr> <td><i>Myotis nattereri</i></td><td>Natterer's bat</td></tr> <tr> <td><i>Pipistrellus pipistrellus</i></td><td>Common Pipistrelle (45 kHz) bat</td></tr> <tr> <td><i>Plecotus auritus</i></td><td>Brown Long-eared bat</td></tr> </table> <p><b>Sussex BAP Species</b></p> <table> <tr> <td><i>Bufo bufo</i></td><td>Common toad</td></tr> <tr> <td><i>Erinaceus europaeus</i></td><td>European hedgehog</td></tr> <tr> <td><i>Limenitis camilla</i></td><td>White admiral</td></tr> </table> <p><b>Sussex Rare Species Inventory</b></p> <table> <tr> <td><i>Somatochlora metallica</i></td><td>Brilliant emerald</td></tr> </table>		<i>Myotis nattereri</i>	Natterer's bat	<i>Pipistrellus pipistrellus</i>	Common Pipistrelle (45 kHz) bat	<i>Plecotus auritus</i>	Brown Long-eared bat	<i>Bufo bufo</i>	Common toad	<i>Erinaceus europaeus</i>	European hedgehog	<i>Limenitis camilla</i>	White admiral	<i>Somatochlora metallica</i>	Brilliant emerald
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<i>Limenitis camilla</i>	White admiral														
<i>Somatochlora metallica</i>	Brilliant emerald														

<b>Notable Bird Inventory</b>	
<i>Ardea cinerea</i>	Grey heron
<i>Corvus corax</i>	Raven
<i>Phylloscopus sibilatrix</i>	Wood warbler
<b>Invasive Alien Species Inventory</b>	
<i>Allium triquetrum</i>	Three-cornered garlic
<i>Cotoneaster horizontalis</i>	Wall cotoneaster
<i>Crocsmia pottsii</i> x <i>aurea</i> = <i>C. x crocosmiiflora</i>	Montbretia
<i>Fallopia japonica</i>	Japanese Knotweed
<i>Gaultheria shallon</i>	Shallon
<i>Harmonia axyridis</i>	Harlequin Ladybird
<i>Impatiens glandulifera</i>	Indian balsam
<i>Prunus laurocerasus</i>	Cherry laurel
<i>Rhododendron ponticum</i>	Rhododendron
<b>Field Survey: Habitat Descriptions (see Figure 21/530)</b>	
<p><b>Amenity grassland</b> – species poor and comprising typical common and widespread species.</p> <p><b>Trees and shrubs</b> – a mix of native and non-native species but including mature oaks in the south eastern corner and on the western boundary (TN1 and 2). Also planted beds and borders.</p> <p><b>Buildings</b> – modern house, garage and outbuilding, all with pitched and tiled roofs.</p>	
<b>Field Survey: Protected and Notable Species</b>	
No species considered notable for their nature conservation value recorded during the Phase I habitat field survey.	
<b>Field Survey: Invasive Non-native Species</b>	
No invasive non-native species recorded within the Site.	
<b>Assessment of Potential for Protected and Notable Species</b>	
<p><b>Great crested newts</b> – There are no ponds within the Site. However, there is a pond approximately 150m to the north and OS maps indicate the presence of further ponds in the woodland to the north. However, given the widespread suitable terrestrial habitat for great crested newts close to the ponds and the very limited habitat within the Site, the probability of their being present is considered very low.</p> <p><b>Breeding birds</b> – In trees and shrubs.</p> <p><b>Bats</b> – Trees and mature trees in particular, with features such as cracks and cavities, such as the oaks at TN1 and 2, have potential to be used as roosts. The buildings appear to have relatively low potential for roosts. Activity, including foraging and commuting, is likely throughout, but especially around trees on the boundaries.</p> <p><b>Badgers</b> – Potential for setts on boundaries, but with or without setts badgers may also use any of most of the Site for foraging. However, neither setts nor foraging signs are recorded during the survey.</p>	
<b>Recommendations for Further Survey (and optimal survey timings)</b>	
<p><b>Bats</b> – (inspections: year round; activity surveys April – October) in the first instance inspection of trees and buildings to determine the scope for further survey.</p> <p><b>Badgers</b> – (Year round but Spring / Autumn optimal) of whole site.</p>	

## INDICATIVE ECOLOGICAL APPRAISAL

**Low** – house and garden with few notable habitats or features apart from the mature oaks. The Sites habitats and features have low potential to support notable/protected species.

### Impact Avoidance

In order to limit, as far as possible, potentially adverse effects of development including potential harm to the integrity of the wider green infrastructure network, effort should be made to avoid the more ecologically valuable parts of the Site by:

- Retaining and buffering the mature oak trees and their features.
- As far as possible and appropriate retaining and buffering habitats and features supporting notable/protected species, based on the results of more detailed surveys.

### Outline Mitigation

Should development at this Site proceed, generic (standard) mitigation for impacts upon habitats and species is set out below. Further detailed or species-specific mitigation may be required dependent upon the outcome of the recommended protected habitat or species surveys.

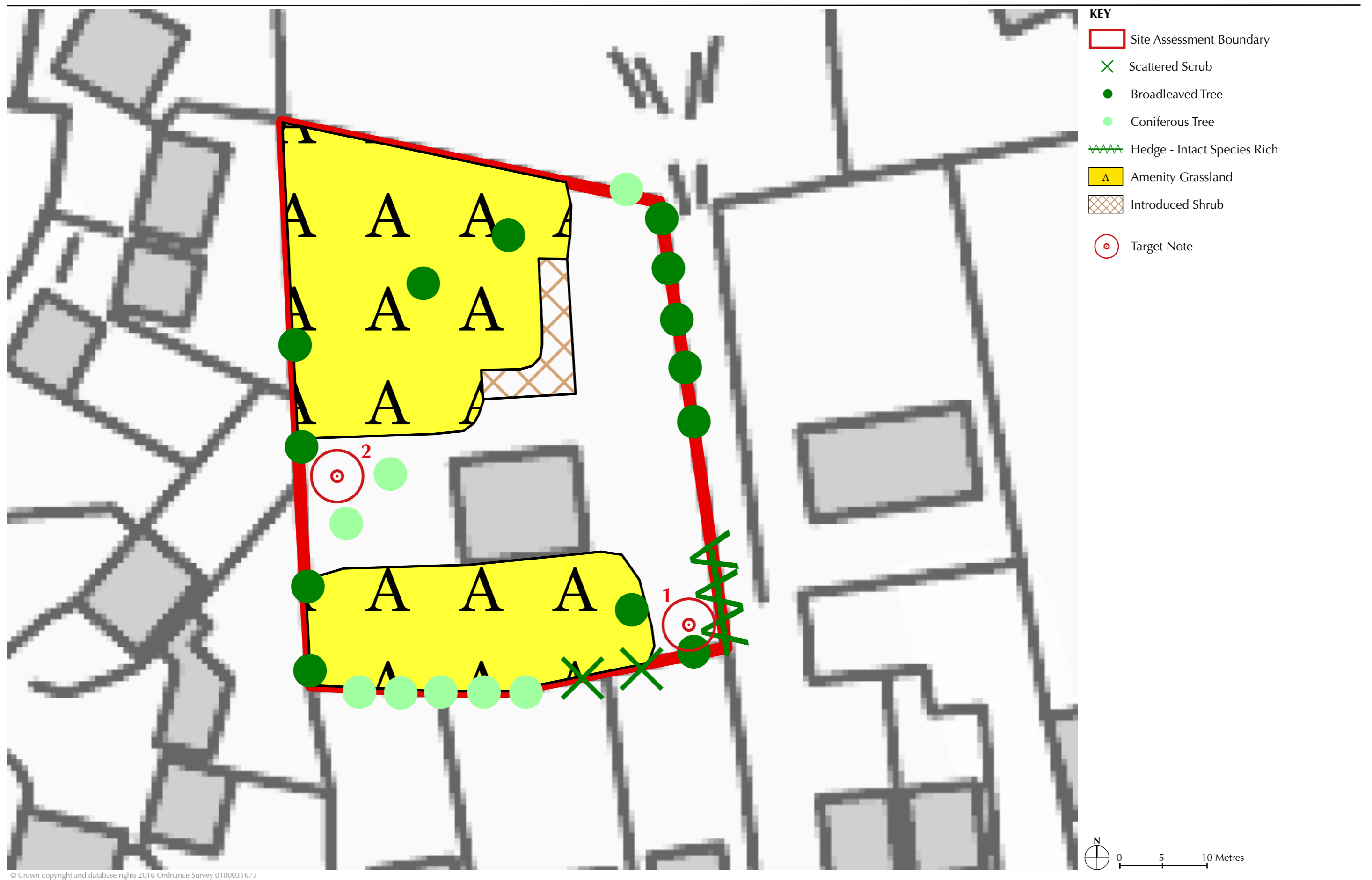
- Implementation of a Construction and environmental Management Plan (CEMP) to manage site-specific issues relating to the potential impacts of construction on ecological features of interest;
- Timing of vegetation clearance works to avoid the bird breeding season (March – August inclusive).
- Offset buffers to protect retained habitats (minimum 10m).
- Use of protective fencing to define construction areas and protect retained habitats.
- Avoidance of night-time working wherever possible. When not possible, use directional lighting to prevent lightshed into surrounding habitats.
- Inclusion of mammal ladders or similar in any trenches left open overnight.
- Sealing of pipework overnight, to prevent animals becoming trapped.
- Defined and bunded areas for fuel storage and refuelling to prevent spillages and pollution incidents.
- On-Site spill incident equipment, in the event of spillages of fuel or other materials. Specific measures will be required if any works are close to watercourses and/or waterbodies.
- New development may need to incorporate bat roosts as alternative or replacement habitat if roosts are likely to be lost.
- Insofar as any proposed development of the Site allows, lighting design, particularly for the periphery of the Site should be minimised as far as possible. As a minimum, any lighting along Site boundaries that may potentially form important commuting corridors (e.g. hedgerows) or adjacent woodlands that may support bat roosts should make use of backboards and/or internal louvres to ensure light is directed into the Site and light spill into the adjacent areas of retained habitat is minimised.
- Development should avoid construction works within at least 30m of the nearest badger setts and seek to avoid prime foraging grounds identified through the badger survey and severance of commuting corridors within territories.

### Potential Enhancement Opportunities

Opportunities for enhancing, restoring and/or creating new habitats as an integral part of a Site's development that can also contribute to the District's wider ecological /green infrastructure network are identified below:

- Positively and appropriately manage retained habitats and features, including mature trees.
- Removal of non-native species from boundary vegetation and replacement with appropriate native species.

- Habitat creation, ideally located adjacent to retained or adjoining habitat, for example in a corner of the Site, or to form habitat corridors or links. To include for example:
  - Wildlife pond(s), included for example as part of a SuDS scheme;
  - Species-rich grassland and associated features for supporting a variety of terrestrial invertebrates;
  - Scrub and trees; and
  - Creation of dead wood habitats and other habitat piles.
- Erection of bat boxes suitable for a range of bat species, on retained trees or incorporated into buildings where they will remain unlit.
- Erection of bird boxes suitable for a range of bird species on retained trees or incorporated into buildings.
- Incorporate features to SuDS scheme(s), such as the use of native wetland plant species, to enhance their value.



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ECOLOGICAL ASSESSMENT	
<b>Settlement/Area:</b>	Heathfield
<b>Site Address:</b>	Tilsmore Lodge, Cross-in-Hand, Heathfield
<b>Site Reference Number:</b>	533/1210
Site Summary Description	
A very small 0.1ha Site comprising a house and garden consisting largely of amenity grassland, but also including a mature oak tree.	
ECOLOGICAL BASELINE	
Green Infrastructure Context (see Figure 21.1)	
The Site is located within the broader High Weald landscape of small to medium sized fields, including both grassland and arable, set within a relatively extensive and intact hedgerow network which includes frequent trees. Woodland, including Ancient Woodland, is relatively plentiful and includes both large and small parcels. The Site lies on the north western edge of Heathfield, to the north of the A265, forming part of wider a residential area to the south, west and east. To the north there are some small unmanaged fields with mature trees and then the extensive Markly Wood, which includes both Ancient Woodland and plantation.	
Desk Study: Designated Sites within 1km (see Figure 21.2)	Distance from Site
• None	
Desk Study: BAP Priority Habitats within 1km	Distance from Site
Ancient & semi-natural woodland – Markley Wood Ancient & semi-natural woodland – Coalend / Buttons / Dunley Woods Ancient & semi-natural woodland – Heatherdean Wood Ancient & semi-natural woodland – Holman's Wood Ancient & semi-natural woodland – Runtington / Crock-kiln / Geer's Woods Lowland Heathland BAP priority habitat (5 areas, un-named) Lowland Heathland BAP priority habitat (5 areas, un-named) Lowland Heathland BAP priority habitat (5 areas, un-named)	65m North 75000m North West 225m West 780m South 930m South East 580m North West 730m North 870m North East
Desk Study: Protected and Notable Species within 1km	
<b>Protected Species</b> <i>Myotis nattereri</i> Natterer's bat <i>Pipistrellus pipistrellus</i> Common Pipistrelle (45 kHz) bat <i>Plecotus auritus</i> Brown Long-eared bat  <b>Sussex BAP Species</b> <i>Bufo bufo</i> Common toad <i>Erinaceus europaeus</i> European hedgehog  <b>Sussex Rare Species Inventory</b> <i>Somatochlora metallica</i> Brilliant emerald  <b>Notable Bird Inventory</b> <i>Corvus corax</i> Raven	

<i>Phylloscopus sibilatrix</i>	Wood warbler
<b>Invasive Alien Species Inventory</b>	
<i>Cotoneaster horizontalis</i>	Wall cotoneaster
<i>Crocsmia pottsii</i> x <i>aurea</i> = <i>C. x crocosmiiflora</i>	Montbretia
<i>Fallopia japonica</i>	Japanese Knotweed
<i>Gaultheria shallon</i>	Shallon
<i>Harmonia axyridis</i>	Harlequin Ladybird
<i>Impatiens glandulifera</i>	Indian balsam
<i>Rhododendron ponticum</i>	Rhododendron
<b>Field Survey: Habitat Descriptions (see Figure 21/533)</b>	
<b>Amenity grassland</b> – Species poor and comprising a limited number of typical common and widespread species. <b>Trees</b> – Includes a mature oak beside the northern boundary. <b>Buildings</b> – House with pitched and tiled roof.	
<b>Field Survey: Protected and Notable Species</b>	
No species considered notable for their nature conservation value recorded during the Phase I habitat field survey.	
<b>Field Survey: Invasive Non-native Species</b>	
No invasive non-native species recorded within the Site.	
<b>Assessment of Potential for Protected and Notable Species</b>	
<b>Great crested newts</b> – There are no ponds within the Site but there is a pond approximately 250m to the north east. However, given the lack of suitable terrestrial habitat for great crested newts within the Site, the probability of their being present is considered very low. <b>Breeding birds</b> – In trees and bushes. <b>Bats</b> – Trees and mature trees in particular, with features such as cracks and cavities, have potential to be used as roosts. The house also has potential and the resident reports that bats roost in the roofspace.	
<b>Recommendations for Further Survey (and optimal survey timings)</b>	
<b>Bats</b> – (inspections: year round; activity surveys April – October) in the first instance inspection of trees and house to determine the scope for further survey.	
<b>INDICATIVE ECOLOGICAL APPRAISAL</b>	
<b>Low value</b> – house and garden with very small areas of species poor habitats. Apart from bats roosting within the house, the Site has low potential to support notable/protected species.	
<b>Impact Avoidance</b>	
In order to limit, as far as possible, potentially adverse effects of development including potential harm to the integrity of the wider green infrastructure network, effort should be made to avoid the more ecologically valuable parts of the Site by: <ul style="list-style-type: none"> <li>• Retaining and buffering the mature oak tree.</li> <li>• As far as possible and appropriate retaining and buffering habitats and features supporting notable/protected species, based on the results of more detailed surveys.</li> </ul>	

## Outline Mitigation

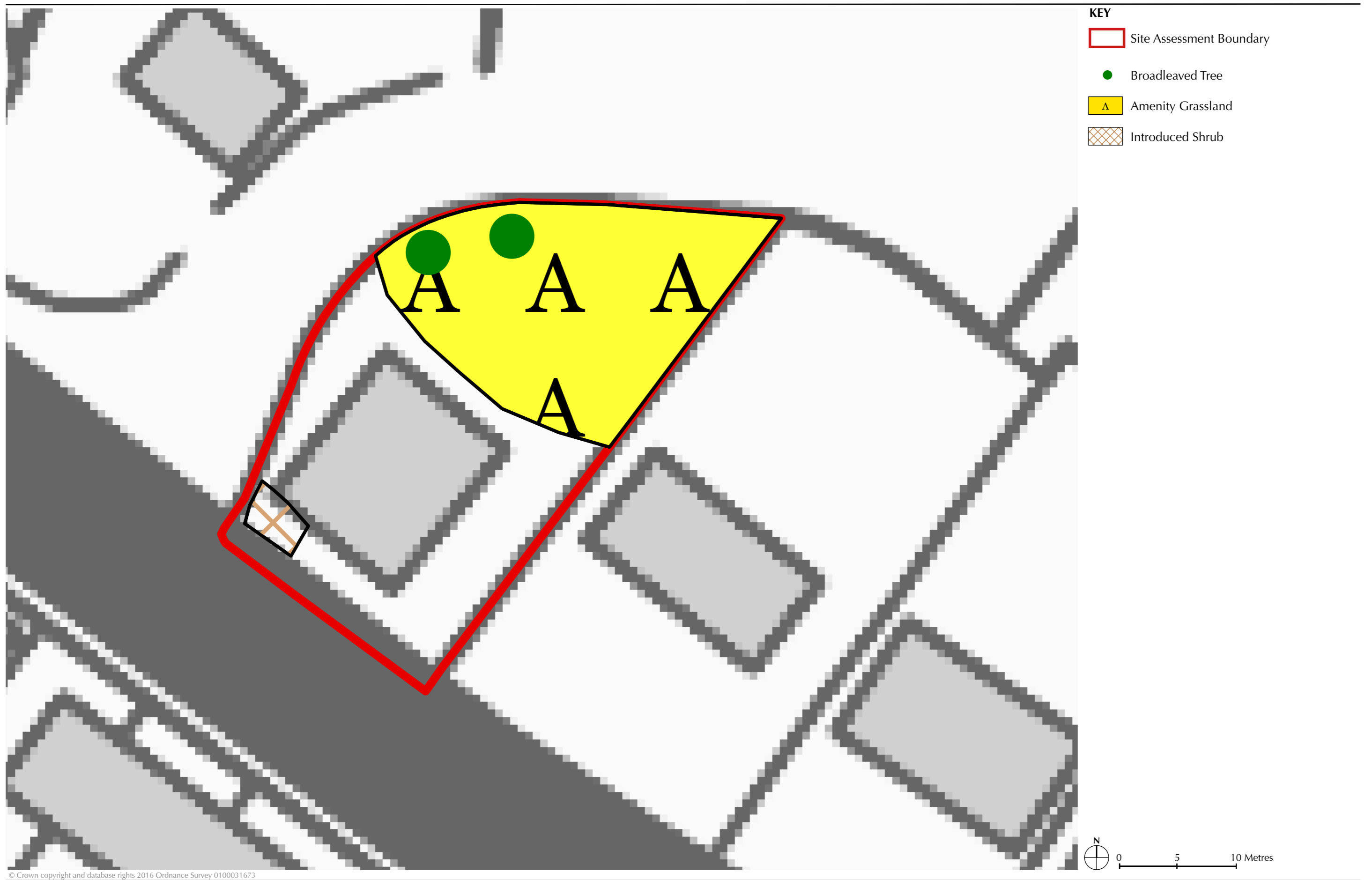
Should development at this Site proceed, generic (standard) mitigation for impacts upon habitats and species is set out below. Further detailed or species-specific mitigation may be required dependent upon the outcome of the recommended protected habitat or species surveys.

- Implementation of a Construction and Environmental Management Plan (CEMP) to manage site-specific issues relating to the potential impacts of construction on ecological features of interest.
- Timing of vegetation clearance works to avoid the bird breeding season (March – August inclusive).
- Offset buffers to protect retained habitats (minimum 10m).
- Use of protective fencing to define construction areas and protect retained habitats.
- Avoidance of night-time working wherever possible. When not possible, use directional lighting to prevent lightshed into surrounding habitats.
- Inclusion of mammal ladders or similar in any trenches left open overnight.
- Sealing of pipework overnight, to prevent animals becoming trapped.
- Defined and bunded areas for fuel storage and refuelling to prevent spillages and pollution incidents.
- On-Site spill incident equipment, in the event of spillages of fuel or other materials. Specific measures will be required if any works are close to watercourses and/or waterbodies.
- New development may need to incorporate bat roosts as alternative or replacement habitat if roosts are likely to be lost.
- Insofar as any proposed development of the Site allows, lighting design, particularly for the periphery of the Site should be minimised as far as possible. As a minimum, any lighting along Site boundaries that may potentially form important commuting corridors (e.g. hedgerows) or adjacent woodlands that may support bat roosts should make use of backboards and/or internal louvres to ensure light is directed into the Site and light spill into the adjacent areas of retained habitat is minimised.

## Potential Enhancement Opportunities

Opportunities for enhancing, restoring and/or creating new habitats as an integral part of a Site's development that can also contribute to the District's wider ecological /green infrastructure network are identified below:

- Positively and appropriately manage retained habitats and features, including mature trees.
- Plant appropriate native species to form hedges on boundaries.
- Habitat creation, ideally located adjacent to retained or adjoining habitat, to include for example:
  - Wildlife pond(s), included for example as part of a SuDS scheme;
  - Species-rich grassland and associated features for supporting a variety of terrestrial invertebrates;
  - Scrub and trees; and
  - Creation of dead wood habitats and other habitat piles.
- Erection of bat boxes suitable for a range of bat species, on retained trees or incorporated into buildings where they will remain unlit.
- Erection of bird boxes suitable for a range of bird species on retained trees or incorporated into buildings.
- Incorporate features to SuDS scheme(s), such as the use of native wetland plant species, to enhance their value.



ECOLOGICAL ASSESSMENT	
Settlement/Area:	Heathfield
Site Address:	Yulden Field, Barretts Park Farm, Heathfield
Site Reference Number:	557/1210
Site Summary Description	
A 1.87ha Site comprising a species poor grassland field with patchy stands of bramble on the field edges and enclosed within species rich hedges, sections of which include mature trees. Also includes a narrow strip of scrub and a stand of the invasive non-native Japanese knotweed.	
ECOLOGICAL BASELINE	
Green Infrastructure Context (see Figure 21.1)	
<p>The Site is located within a characteristic High Weald landscape of small to medium sized fields, including both grass and arable, set within a relatively extensive and intact hedgerow network which includes frequent trees. Woodland, including Ancient Woodland, is relatively plentiful, the majority of which are relatively large in size. The Site lies on the southern edge of Heathfield, to the south of Sandy Cross lane. To the north are some residential properties set within quite large plots/gardens, beyond which are denser residential areas of Heathfield. Approximately 100m to the east is Heathfield Park, which supports relatively large areas of woodland, including Ancient Woodland and Woodpasture and Parkland Priority Habitats, and of which a part is designated SSSI. To the south is open country of fields with hedges and woodland.</p>	
Desk Study : Designated Sites (See Figure 21.2)	Distance from Site
<ul style="list-style-type: none"> <li>The Site lies approximately 320m west of the nearest point of <b>Heathfield Park SSSI</b>. The Citation states: <i>"This Site is an example of an ancient Wealden Gill woodland formed by the vigorous downcutting of a stream into the Ashdown Sand series of the Hastings Beds. A number of 'Atlantic' plants, uncommon in the south-east, are present and the lichen flora is also notable ... The woodland is dominated by mature beech Fagus sylvatica with both pedunculate and sessile oak Quercus robur and Q. petraea, holly Ilex aquifolium and scattered yew Taxus baccata. In the north and east birch Betula spp. becomes frequent and the stream valleys contain willow Salix spp. and alder Alnus glutinosa ... Continuous woodland cover in this sheltered Gill provides a moist, mild microclimate and a number of plant species occur here which are otherwise restricted to western counties, including Cornish moneywort Sibthorpia europaea, hay-scented buckler-fern Dryopteris aemula and the liverwort Frullania tamarisci. The Site is also of county importance for lichens: a total of 76 species have been recorded here ... The lakes add to the value of the Site for dragonflies and birds."</i></li> <li>The Site lies approximately 420m north of the nearest point of <b>Sapperton Meadows SSSI</b>. The Citation states: <i>"The Site consists of a number of pastures and meadows separated by a well developed network of hedgerows, and bordered on the south-west by mixed woodland. The fields form what is one of the best examples of contrasting rich pastures and hay meadows in East Sussex which is still being managed by traditional techniques ... The fields ... vary widely in grazing pressure [which] result in a mosaic of plant communities. Overall the flora is extremely species-rich and diverse,</i></li> </ul>	<ul style="list-style-type: none"> <li>320m East of the Site.</li> <li>420m South of the Site.</li> </ul>

<p>particularly in broad-leaved species. Characteristic species present include dyer's greenweed <i>Genista tinctoria</i>, lesser spearwort <i>Ranunculus flammula</i>, fleabane <i>Pulicaria dysenterica</i>, and a variety of sedges. In general the grassland is dominated by common bent grass <i>Agrostis capillaris</i>, along with Yorkshire fog <i>Holcus lanatus</i>, bird's foot trefoil <i>Lotus corniculatus</i>, daisy <i>Bellis perennis</i>, self-heal <i>Prunella vulgaris</i>, red clover <i>Trifolium pratense</i>, and ribwort plantain <i>Plantago lanceolata</i>. The grazed fields are characterised by lesser knapweed <i>Centaurea nigra</i>, bird's foot trefoil, hairy hawkbit <i>Leontodon taraxacoides</i>, yellow rattle <i>Rhinanthus minor</i>, dyer's greenweed, fleabane, sharp-flowered rush <i>Juncus acutifolius</i>, common spotted orchid <i>Dactylorhiza fuchsii</i> and cat's ear <i>Hypochaeris radicata</i> ... Characteristic plants of the hay fields include Yorkshire fog, lesser knapweed and yellow-rattle, with common bent grass, sweet vernal grass <i>Anthoxanthum odoratum</i>, sneezewort <i>Achillea ptarmica</i>, and hairy hawkbit. Carnation sedge <i>Carex panicea</i>, glaucous sedge <i>C. flacca</i>, oval sedge <i>Carex ovalis</i> and lesser spearwort occur in flushed patches."</p>																																					
Desk Study: BAP Priority Habitats within 1km	Distance from Site																																				
<ul style="list-style-type: none"> <li>• Ancient &amp; semi-natural woodland – Ham Wood</li> <li>• Ancient &amp; semi-natural woodland – Monkhurst Farm Shaw</li> <li>• Ancient &amp; semi-natural woodland – Runtington / Crock-kiln / Geer's Woods</li> <li>• Ancient &amp; semi-natural woodland – Sapperton Wood</li> <li>• Ancient &amp; semi-natural woodland – Barrets Park Wood</li> <li>• Ancient &amp; semi-natural woodland – Walnuts Farm Shaw</li> <li>• Ancient &amp; semi-natural woodland – Mill Wood</li> <li>• Ancient &amp; semi-natural woodland – Sapperton Manor Farm Shaw</li> <li>• Ancient &amp; semi-natural woodland – Rookery / Furnace Woods</li> <li>• Ancient &amp; semi-natural woodland – Heathfield Park</li> <li>• Lowland Meadows BAP priority habitat (part of Sapperton Meadows SSSI)</li> <li>• Wood Pasture &amp; Parkland BAP priority habitat (part of Heathfield Park SSSI)</li> </ul>	<ul style="list-style-type: none"> <li>• 85m West</li> <li>• 150m North West</li> <li>• 930m West</li> <li>• 610m South West</li> <li>• Adjacent South</li> <li>• 390m South East</li> <li>• 690m South East</li> <li>• 720m SSE</li> <li>• 910m South East</li> <li>• 100m East</li> <li>• 410m South</li> <li>• 410m East</li> </ul>																																				
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<p><b>Protected Species</b></p> <table> <tr> <td><i>Anguis fragilis</i></td><td>Slow worm</td></tr> <tr> <td><i>Muscardinus avellanarius</i></td><td>Hazel dormouse</td></tr> <tr> <td><i>Natrix natrix</i></td><td>Grass snake</td></tr> <tr> <td><i>Nyctalus noctula</i></td><td>Noctule bat</td></tr> <tr> <td><i>Phyteuma spicatum</i></td><td>Spiked Rampion</td></tr> <tr> <td><i>Pipistrellus pipistrellus</i></td><td>Common Pipistrelle (45 kHz) bat</td></tr> <tr> <td><i>Pipistrellus sp.</i></td><td>Pipistrelle sp. bat</td></tr> <tr> <td><i>Plecotus auritus</i></td><td>Brown Long-eared bat</td></tr> <tr> <td><i>Triturus cristatus</i></td><td>Great crested newt</td></tr> <tr> <td><i>Vipera berus</i></td><td>Adder</td></tr> <tr> <td><i>Zootoca vivipara</i></td><td>Common lizard</td></tr> </table> <p><b>Sussex BAP Species</b></p> <table> <tr> <td><i>Acronicta rumicis</i></td><td>Knot Grass (moth)</td></tr> <tr> <td><i>Agrochola lychnidis</i></td><td>Beaded Chestnut (moth)</td></tr> <tr> <td><i>Allophyas oxyacanthae</i></td><td>Green-brindled Crescent (moth)</td></tr> <tr> <td><i>Amphipyra tragopoginis</i></td><td>Mouse Moth (moth)</td></tr> <tr> <td><i>Apamea remissa</i></td><td>Dusky Brocade (moth)</td></tr> <tr> <td><i>Asteroscopus sphinx</i></td><td>Sprawler (moth)</td></tr> <tr> <td><i>Brachyolomia viminalis</i></td><td>Minor Shoulder-knot (moth)</td></tr> </table>		<i>Anguis fragilis</i>	Slow worm	<i>Muscardinus avellanarius</i>	Hazel dormouse	<i>Natrix natrix</i>	Grass snake	<i>Nyctalus noctula</i>	Noctule bat	<i>Phyteuma spicatum</i>	Spiked Rampion	<i>Pipistrellus pipistrellus</i>	Common Pipistrelle (45 kHz) bat	<i>Pipistrellus sp.</i>	Pipistrelle sp. bat	<i>Plecotus auritus</i>	Brown Long-eared bat	<i>Triturus cristatus</i>	Great crested newt	<i>Vipera berus</i>	Adder	<i>Zootoca vivipara</i>	Common lizard	<i>Acronicta rumicis</i>	Knot Grass (moth)	<i>Agrochola lychnidis</i>	Beaded Chestnut (moth)	<i>Allophyas oxyacanthae</i>	Green-brindled Crescent (moth)	<i>Amphipyra tragopoginis</i>	Mouse Moth (moth)	<i>Apamea remissa</i>	Dusky Brocade (moth)	<i>Asteroscopus sphinx</i>	Sprawler (moth)	<i>Brachyolomia viminalis</i>	Minor Shoulder-knot (moth)
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<i>Bufo bufo</i>	Common toad
<i>Diarsia rubi</i>	Small Square-spot
<i>Ecliptopera silaceata</i>	Small Phoenix (moth)
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<i>Erinaceus europaeus</i>	European hedgehog
<i>Erynnis tages</i>	Dingy Skipper
<i>Eugnorisma glareosa</i>	Autumnal Rustic (moth)
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<i>Hydraecia micacea</i>	Rosy Rustic (moth)
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<i>Timandra comae</i>	Blood-Vein (moth)
<i>Tyria jacobaeae</i>	Cinnabar (moth)
<i>Watsonalla binaria</i>	Oak Hook-tip (moth)
<i>Xanthia icteritia</i>	Sallow (moth)
<b>Sussex Rare Species Inventory</b>	
<i>Brachythecium mildeanum</i>	Sand Feather-moss
<i>Buxus sempervirens</i>	Box
<i>Calamotropha paludella</i>	Bulrush veneer (moth)
<i>Chloroclysta siterata</i>	Red-green Carpet (moth)
<i>Eilema sororcula</i>	Orange Footman (moth)
<i>Eleogiton fluitans</i>	Floating Club-rush
<i>Furcula bicuspis</i>	Alder Kitten (moth)
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<i>Apus apus</i>	Swift
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<i>Hirundo rustica</i>	Swallow
<i>Milvus milvus</i>	Red kite
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<b>Invasive Alien Species Inventory</b>	
<i>Crocasmia pottsii</i> x <i>aurea</i> = <i>C. x crocosmiiflora</i>	Montbretia
<i>Hyacinthoides non-scripta</i> x <i>hispanica</i> (= <i>H. x massartiana</i> )	Hybrid bluebell

<i>Impatiens glandulifera</i>	Indian balsam
<i>Rhododendron ponticum</i>	Rhododendron
<i>Rosa rugosa</i>	Japanese rose
<b>Field Survey: Habitat Descriptions (See Figure 21/557)</b>	
<p><b>Poor semi-improved grassland</b> – A variable sward, from short to quite tall and tussocky and species poor. Yorkshire fog <i>Holcus lanatus</i> and common bent <i>Agrostis capillaris</i> are the most abundant grasses, but false oat grass <i>Arrhenatherum elatius</i> is frequent and perennial rye-grass <i>Lolium perenne</i> occasional. Floating sweet-grass <i>Glyceria fluitans</i> and marsh foxtail <i>Alopecurus geniculatus</i> are locally frequent in damp patches. Forb cover is approximately 30% but of few species. Creeping buttercup <i>Ranunculus repens</i> and birds foot trefoils <i>Lotus</i> spp. are frequent and broadleaved willowherb <i>Epilobium montanum</i> and fleabane <i>Pulicaria dysenterica</i> occasional. Cinquefoil <i>Potentilla reptans</i> is locally abundant. Broadleaved dock <i>Rumex obtusifolius</i> is frequent.</p> <p><b>Scrub</b> – There are stands of bramble on the field edges. The northern strip of the Site comprises dense scrub, including bramble as well as bushes of willow and hawthorn.</p> <p><b>Hedges</b> – Species rich with hawthorn, blackthorn, hazel, holly, rose, hornbeam and willow. Some sections include trees of oak, birch, ash, of which the oaks in the south eastern section are mature.</p> <p><b>Trees</b> – Several trees, including mature oak, willow and poplar on the northern boundary of the field as well as a line of cypresses on the eastern boundary of the northern strip.</p>	
<b>Field Survey: Protected and Notable Species</b>	
No species considered notable for their nature conservation value recorded during the Phase I habitat field survey.	
<b>Field Survey: Invasive Non-native Species</b>	
Japanese knotweed – stand in the northern strip at <b>TN1</b> .	
<b>Assessment of Potential for Protected and Notable Species</b>	
<p><b>Great crested newts</b> – There are no ponds within the Site. However, there is a pond adjacent to the southern part of the Site and OS maps indicate the presence of ponds near Barrets Park Farm, approximately 70-100m south east, in Barrets Park Wood, approximately 1900m south and in Ham Wood, approximately 110m west of the Site. Hedges, scrub and some of the coarser grassland on the field edges represent suitable terrestrial habitat for great crested newts within the Site.</p> <p><b>Reptiles</b> – Potential along field edges.</p> <p><b>Breeding birds</b> – In hedges, trees and scrub.</p> <p><b>Bats</b> – Trees and mature trees in particular, with features such as cracks and cavities, have potential to be used as roosts. Activity, including foraging and commuting, is likely throughout, but especially along hedges and around trees.</p> <p><b>Dormice</b> – At least moderate potential in hedges and scrub due to habitat connectivity with hedges and woodland, especially to the south.</p> <p><b>Badgers</b> – Potential for setts within hedges and scrub, but with or without setts badgers may also use any part of the Site for foraging, though neither was recorded during the survey.</p>	

## Recommendations for Further Survey

**Amphibian (including great crested newt)** – (March – June) of the ponds to the south and west of the Site  
**Reptiles** – (May – June, September – October) in suitable habitat throughout the Site.

**Bats** – (inspections: year round; activity surveys April – October) in the first instance inspection of trees to determine the scope for further survey and activity surveys.

**Dormice** – (April – November) in suitable habitat.

**Badgers** – (Year round but Spring / Autumn optimal) of whole site.

## INDICATIVE ECOLOGICAL APPRAISAL

**Low to Moderate value** – species poor grassland of relatively low value but the hedges and mature trees are of moderate value.

The Site's habitats and features have moderate potential to support notable/protected species.

### Impact Avoidance

In order to limit, as far as possible, potentially adverse effects of development including potential harm to the integrity of the wider green infrastructure network, effort should be made to avoid the more ecologically valuable parts of the Site by:

- Retaining and buffering the hedges and mature trees and their features.
- As far as possible and appropriate retaining and buffering habitats and features supporting notable/protected species, based on the results of more detailed surveys.

### Outline Mitigation

Should development at this Site proceed, generic (standard) mitigation for impacts upon habitats and species is set out below. Further detailed or species-specific mitigation may be required dependent upon the outcome of the recommended protected habitat or species surveys.

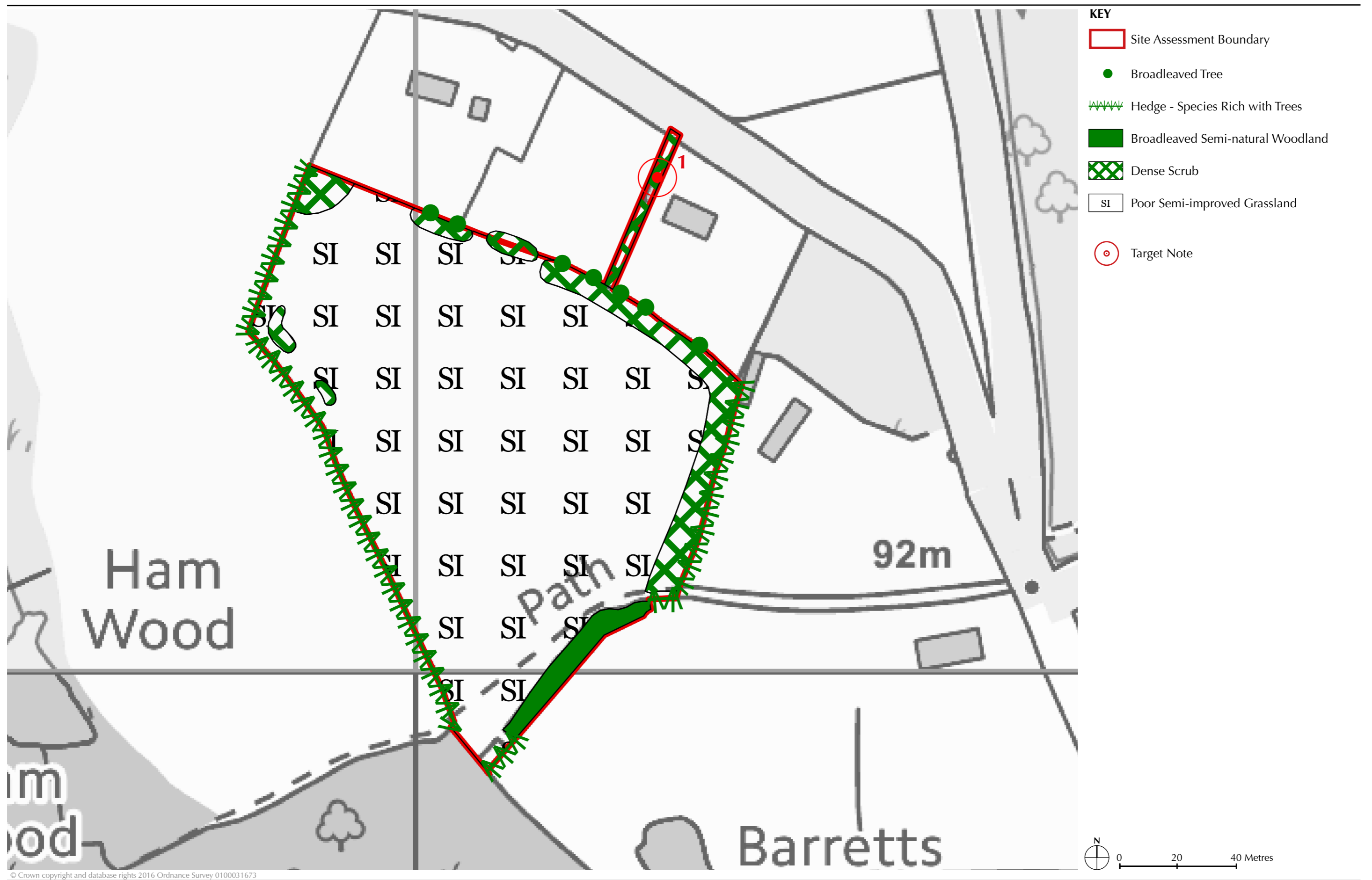
- Implementation of a Construction and Environmental Management Plan (CEMP) to manage site-specific issues relating to the potential impacts of construction on ecological features of interest.
- Timing of vegetation clearance works to avoid the bird breeding season (March – August inclusive).
- Offset buffers to protect retained habitats (minimum 10m).
- Use of protective fencing to define construction areas and protect retained habitats.
- Avoidance of night-time working wherever possible. When not possible, use directional lighting to prevent lightshed into surrounding habitats.
- Inclusion of mammal ladders or similar in any trenches left open overnight.
- Sealing of pipework overnight, to prevent animals becoming trapped.
- Defined and bunded areas for fuel storage and refuelling to prevent spillages and pollution incidents.
- On-Site spill incident equipment, in the event of spillages of fuel or other materials. Specific measures will be required if any works are close to watercourses and/or waterbodies.
- If great crested newts are found to be present in the ponds to the south or west of the Site then measures should be put in place to prevent harming or killing them, including for example the erection of herptile fencing to exclude them from work areas, and possibly trapping and translocation to suitable receptor areas elsewhere.
- If reptiles are found to be present, measures to prevent harm to them, including potentially translocation from the development Site to a suitable receptor site. Where feasible such receptor areas should be incorporated into the new development (for example in buffer strips beside retained hedges, as noted above).
- New development may need to incorporate bat roosts as alternative or replacement habitat if roosts are likely to be lost.

- Insofar as any proposed development of the Site allows, lighting design, particularly for the periphery of the Site should be minimised as far as possible. As a minimum, any lighting along Site boundaries that may potentially form important commuting corridors (e.g. hedgerows) or adjacent woodlands that may support bat roosts should make use of backboards and/or internal louvres to ensure light is directed into the Site and light spill into the adjacent areas of retained habitat is minimised.
- If dormice are found to be present the retention and appropriate buffering of hedges (as noted above).
- Development should avoid construction works within at least 30m of the nearest badger setts and seek to avoid prime foraging grounds identified through the badger survey and severance of commuting corridors within territories.

### **Potential Enhancement Opportunities**

Opportunities for enhancing, restoring and/or creating new habitats as an integral part of a Site's development that can also contribute to the District's wider ecological /green infrastructure network are identified below:

- Positively and appropriately manage retained habitats and features, including hedges and mature trees.
- Strengthen boundary vegetation, for example on the northern boundary of the field, by planting appropriate native species.
- Habitat creation, ideally located adjacent to retained or adjoining habitat, for example in the southern part of the field, or to form habitat corridors or links. To include for example:
  - Wildlife pond(s), included for example as part of a SuDS scheme;
  - Species-rich grassland and associated features for supporting a variety of terrestrial invertebrates;
  - Scrub and trees; and
  - Creation of dead wood habitats and other habitat piles.
- Erection of bat boxes suitable for a range of bat species, on retained trees or incorporated into buildings where they will remain unlit.
- Erection of bird boxes suitable for a range of bird species on retained trees or incorporated into buildings.
- Incorporate features to SuDS scheme(s), such as the use of native wetland plant species, to enhance their value.



ECOLOGICAL ASSESSMENT	
Settlement/Area:	Heathfield
Site Address:	Land at Junction of Sandy Cross Lane & Park Road, Heathfield
Site Reference Number:	559/1210
Site Summary Description	
A 1.05ha Site comprising a moderately species rich grassland field with patchy stands of tall ruderal and bramble on the field edges and enclosed within species rich hedges, sections of which include mature trees.	
ECOLOGICAL BASELINE	
Green Infrastructure Context (see Figure 21.1)	
<p>The Site is located within a characteristic High Weald landscape of small to medium sized fields, including both grass and arable, set within a relatively extensive and intact hedgerow network which includes frequent trees. Woodland, including Ancient Woodland, is relatively plentiful, the majority of which are relatively large in size. The Site lies on the southern edge of Heathfield, in the angle of Sandy Cross Lane and Park Road. To the north is a school, beyond which are residential areas of Heathfield. Beyond Park Road to the east is Heathfield Park, which supports relatively large areas of woodland, including Ancient Woodland and Woodpasture and Parkland Priority Habitats, and of which a part is designated SSSI. To the south, beyond a small number of residential properties is open country of fields with hedges and woodland.</p>	
Desk Study: Designated Sites within 1km (See Figure 21.2)	Distance from Site
<ul style="list-style-type: none"> <li>The Site lies approximately 250m west of the nearest point of <b>Heathfield Park SSSI</b>. The Citation states: <i>"This Site is an example of an ancient Wealden Gill woodland formed by the vigorous downcutting of a stream into the Ashdown Sand series of the Hastings Beds. A number of 'Atlantic' plants, uncommon in the south-east, are present and the lichen flora is also notable ... The woodland is dominated by mature beech Fagus sylvatica with both pedunculate and sessile oak Quercus robur and Q. petraea, holly Ilex aquifolium and scattered yew Taxus baccata. In the north and east birch Betula spp. becomes frequent and the stream valleys contain willow Salix spp. and alder Alnus glutinosa ... Continuous woodland cover in this sheltered Gill provides a moist, mild microclimate and a number of plant species occur here which are otherwise restricted to western counties, including Cornish moneywort Sibthorpia europaea, hay-scented buckler-fern Dryopteris aemula and the liverwort Frullania tamarisci. The Site is also of county importance for lichens: a total of 76 species have been recorded here ... The lakes add to the value of the Site for dragonflies and birds."</i></li> <li>The Site lies approximately 590m north of the nearest point of <b>Sapperton Meadows SSSI</b>. The Citation states: <i>"The Site consists of a number of pastures and meadows separated by a well developed network of hedgerows, and bordered on the south-west by mixed woodland. The fields form what is one of the best examples of contrasting rich pastures and hay meadows in East Sussex which is still being managed by traditional techniques ... The fields ... vary widely in grazing pressure [which] result in a mosaic of plant communities. Overall the flora is extremely species-rich and diverse, particularly in broad-leaved species. Characteristic species present include dyer's greenweed Genista tinctoria, lesser spearwort Ranunculus flammula,</i></li> </ul>	<ul style="list-style-type: none"> <li>250m East of the Site</li> <li>590m South of the Site.</li> </ul>

<p><i>fleabane Pulicaria dysenterica, and a variety of sedges. In general the grassland is dominated by common bent grass Agrostis capillaris, along with Yorkshire fog Holcus lanatus, bird's foot trefoil Lotus corniculatus, daisy Bellis perennis, self-heal Prunella vulgaris, red clover Trifolium pratense, and ribwort plantain Plantago lanceolata. The grazed fields are characterised by lesser knapweed Centaurea nigra, bird's foot trefoil, hairy hawkbit Leontodon taraxacoides, yellow rattle Rhinanthus minor, dyer's greenweed, fleabane, sharp-flowered rush Juncus acutifolius, common spotted orchid Dactylorhiza fuchsii and cat's ear Hypochaeris radicata ... Characteristic plants of the hay fields include Yorkshire fog, lesser knapweed and yellow-rattle, with common bent grass, sweet vernal grass Anthoxanthum odoratum, sneezewort Achillea ptarmica, and hairy hawkbit. Carnation sedge Carex panicea, glaucous sedge C.flacca, oval sedge Carex ovalis and lesser spearwort occur in flushed patches."</i></p>																																									
Desk Study: BAP Priority Habitats within 1km	Distance from Site																																								
<ul style="list-style-type: none"> <li>• Ancient &amp; semi-natural woodland – Ham Wood</li> <li>• Ancient &amp; semi-natural woodland – Monkhurst Farm Shaw</li> <li>• Ancient &amp; semi-natural woodland – Runtington / Crock-kiln / Geer's Woods</li> <li>• Ancient &amp; semi-natural woodland – Sapperton Wood</li> <li>• Ancient &amp; semi-natural woodland – Barrets Park Wood</li> <li>• Ancient &amp; semi-natural woodland – Walnuts Farm Shaw</li> <li>• Ancient &amp; semi-natural woodland – Mill Wood</li> <li>• Ancient &amp; semi-natural woodland – Sapperton Manor Farm Shaw</li> <li>• Ancient &amp; semi-natural woodland – Rookery / Furnace Woods</li> <li>• Ancient &amp; semi-natural woodland – St. Dunstan's Wood</li> <li>• Ancient &amp; semi-natural woodland – Heathfield Park</li> <li>• Lowland Meadows BAP priority habitat (part of Sapperton Meadows SSSI)</li> <li>• Wood Pasture &amp; Parkland BAP priority habitat (part of Heathfield Park SSSI)</li> </ul>	<ul style="list-style-type: none"> <li>• 250m West</li> <li>• 150m North West</li> <li>• 980m West</li> <li>• 240m South West</li> <li>• 240m South</li> <li>• 380m South East</li> <li>• 675m South East</li> <li>• 800m South</li> <li>• 900m South East</li> <li>• 985m East</li> <li>• 100m East</li> <li>• 635m South</li> <li>• 325m East</li> </ul>																																								
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<i>Rhododendron ponticum</i>	Rhododendron
<i>Rosa rugosa</i>	Japanese rose

### Field Survey: Habitat Descriptions (See Figure 21/559)

**Poor semi-improved grassland** – Unmanaged and comprises a variable but generally quite tall sward which is moderately species rich. Yorkshire fog *Holcus lanatus* and common bent *Agrostis capillaris* are the most abundant grasses, but false oat grass *Arrhenatherum elatius* and cocksfoot *Dactylis glomerata* are frequent. Hairy and oval sedges *Carex hirta* and *ovalis* are occasional. Forb cover is approximately 40-50%, with frequent and locally abundant greater bird's foot trefoil *Lotus pedunculatus*, ribwort plantain *Plantago lanceolata* and common knapweed *Centaurea nigra*. Creeping and meadow buttercup *Ranunculus repens* and *acris*, common sorrel *Rumex acetosa* and dandelion *Taraxacum officinale* agg. are frequent and lesser stitchwort *Stellaria graminea*, square-stalked St John's wort *Hypericum Tetrapterum*, broadleaved willowherb *Epilobium montanum*, hogweed *Heracleum sphondylium* fleabane *Pulicaria dysenterica* and marsh thistle *Cirsium palustre* are occasional. Broadleaved dock *Rumex obtusifolius* is occasional and ragwort *Senecio jacobaea* frequent. Willow and birch saplings are scattered throughout.

**Tall ruderal** – A large stand of nettle in the north west of the Site.

**Scrub** – Stands of bramble with grey willow on field boundaries and corners.

**Hedges** – Mostly species rich with hazel, ash, willow and holly. Some sections, on the northern and north western boundaries, include mature oak trees. The hedge on the northern boundary comprises mature trees with a shrub layer of mostly holly.

### Field Survey: Protected and Notable Species

No species considered notable for their nature conservation value recorded during the Phase I habitat field survey.

### Field Survey: Invasive Non-native Species

No invasive non-native species recorded within the Site.

### Assessment of Potential for Protected and Notable Species

**Great crested newts** – There are no ponds within the Site. However, OS maps indicate the presence of ponds in Heathfield Park approximately 250m to the east, near Barrets Park Farm and Barrets Park Wood, approximately 170-300m south west and towards and within Ham Wood, approximately 200 and 390m west of the Site. However, the roads adjoining the Site will represent barriers to dispersal for great crested newts. Most of the Site, including hedges, scrub and coarser grassland, represents suitable terrestrial habitat for great crested newts within the Site.

**Reptiles** – Potential throughout most of the Site

**Breeding birds** – In hedges, trees and scrub.

**Bats** – Trees and mature trees in particular, with features such as cracks and cavities, have potential to be used as roosts. Activity, including foraging and commuting, is likely throughout, but especially along hedges.

**Dormice** – Moderate potential in hedges and scrub, though somewhat isolated from adjoining habitat, for example by the adjoining roads.

**Badgers** – Potential for setts within hedges and scrub, but with or without setts badgers may also use any part of the Site for foraging, though neither was recorded during the survey.

### Recommendations for Further Survey

**Amphibian (including great crested newt)** – (March – June) of the ponds to the east of the Site.

**Reptiles** – (May – June, September – October) in suitable habitat throughout the Site.

**Breeding birds** – (April – June) especially woodland, plantations, and hedge.

**Bats** – (inspections: year round; activity surveys April – October) in the first instance inspection of trees to determine the scope for further survey and activity surveys.

**Dormice** – (April – November) in suitable habitat.

**Badgers** – (Year round but Spring / Autumn optimal) of whole site.

#### INDICATIVE ECOLOGICAL APPRAISAL

**Moderate value** – the grassland retains some diversity and the hedges and mature trees are of moderate value.

The Sites location, more or less adjacent to Heathfield Park (Ancient Woodland, Woodpasture and Parkland and SSSI) increases its value and sensitivity.

The Sites habitats and features have moderate potential to support notable/protected species.

#### Impact Avoidance

In order to limit, as far as possible, potentially adverse effects of development including potential harm to the integrity of the wider green infrastructure network, effort should be made to avoid the more ecologically valuable parts of the Site by:

- Retaining and buffering the hedges and mature trees and their features.
- As far as possible and appropriate retaining and buffering habitats and features supporting notable/protected species, based on the results of more detailed surveys.

#### Outline Mitigation

Should development at this Site proceed, generic (standard) mitigation for impacts upon habitats and species is set out below. Further detailed or species-specific mitigation may be required dependent upon the outcome of the recommended protected habitat or species surveys.

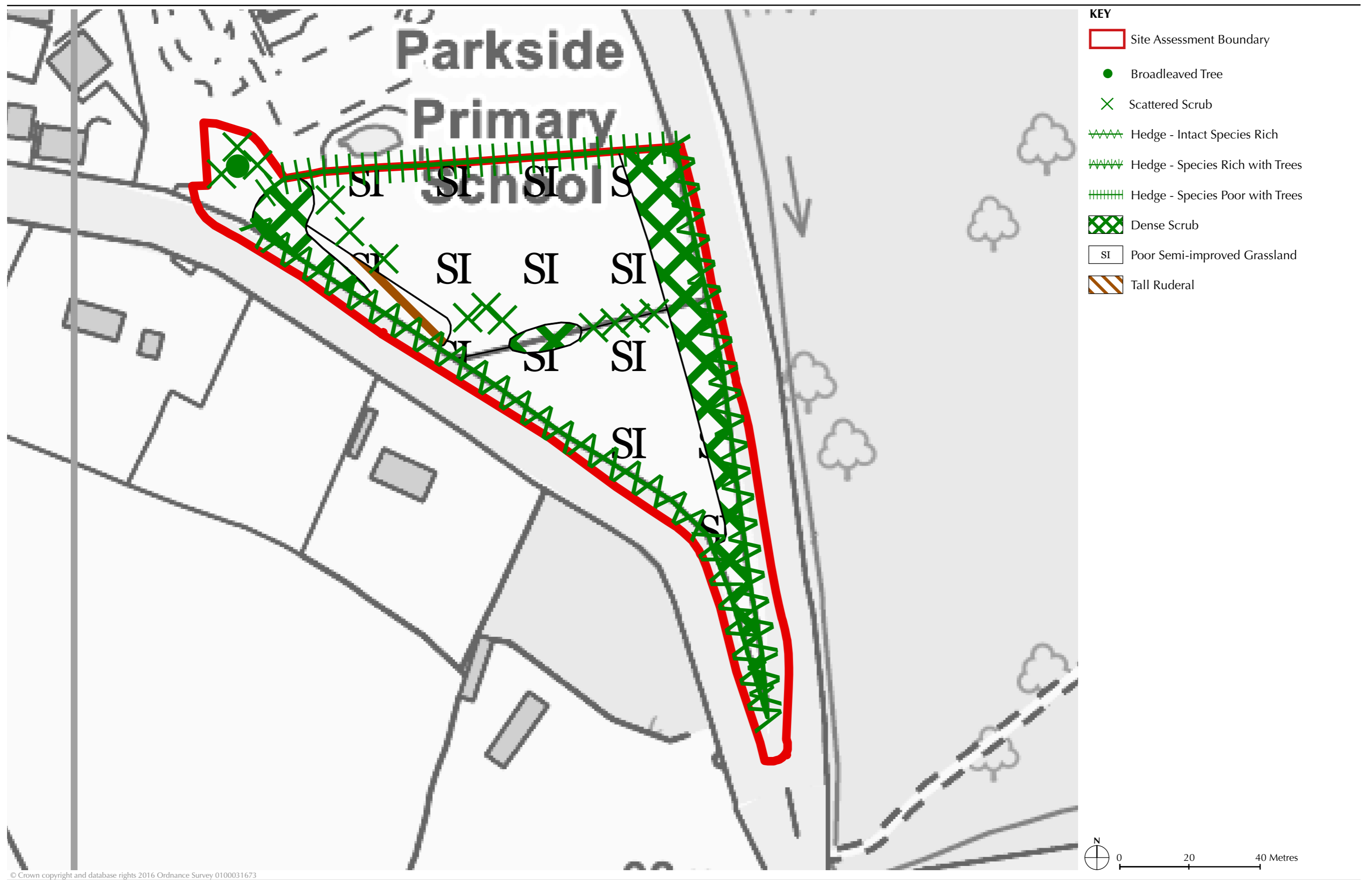
- Implementation of a Construction and Environmental Management Plan (CEMP) to manage site-specific issues relating to the potential impacts of construction on ecological features of interest.
- Timing of vegetation clearance works to avoid the bird breeding season (March – August inclusive).
- Offset buffers to protect retained habitats (minimum 10m).
- Use of protective fencing to define construction areas and protect retained habitats.
- Avoidance of night-time working wherever possible. When not possible, use directional lighting to prevent lightshed into surrounding habitats.
- Inclusion of mammal ladders or similar in any trenches left open overnight.
- Sealing of pipework overnight, to prevent animals becoming trapped.
- Defined and bunded areas for fuel storage and refuelling to prevent spillages and pollution incidents.
- On-Site spill incident equipment, in the event of spillages of fuel or other materials. Specific measures will be required if any works are close to watercourses and/or waterbodies.
- If great crested newts are found to be present in the ponds to the south or west of the Site then measures should be put in place to prevent harming or killing them, including for example the erection of herptile fencing to exclude them from work areas, and possibly trapping and translocation to suitable receptor areas elsewhere.
- If reptiles are found to be present, measures to prevent harm to them, including potentially translocation from the development Site to a suitable receptor site. Where feasible such receptor areas should be incorporated into the new development (for example in buffer strips beside retained hedges, as noted above).
- New development may need to incorporate bat roosts as alternative or replacement habitat if roosts are likely to be lost.
- Insofar as any proposed development of the Site allows, lighting design, particularly for the periphery of the Site should be minimised as far as possible. As a minimum, any lighting along Site boundaries that may potentially form important commuting corridors (e.g. hedgerows) or adjacent woodlands that may support bat roosts should make use of backboards and/or internal louvres to ensure light is directed into the Site and light spill into the adjacent areas of retained habitat is minimised.
- If dormice are found to be present the retention and appropriate buffering of hedges (as noted above).

- Development should avoid construction works within at least 30m of the nearest badger setts and seek to avoid prime foraging grounds identified through the badger survey and severance of commuting corridors within territories.

#### **Potential Enhancement Opportunities**

Opportunities for enhancing, restoring and/or creating new habitats as an integral part of a Site's development that can also contribute to the District's wider ecological /green infrastructure network are identified below:

- Positively and appropriately manage retained habitats and features, including hedges and mature trees.
- Habitat creation, ideally located adjacent to retained or adjoining habitat, for example in field corners, or to form habitat corridors or links. To include for example:
  - Wildlife pond(s), included for example as part of a SuDS scheme;
  - Species-rich grassland and associated features for supporting a variety of terrestrial invertebrates;
  - Scrub and trees; and
  - Creation of dead wood habitats and other habitat piles.
- Erection of bat boxes suitable for a range of bat species, on retained trees or incorporated into buildings where they will remain unlit.
- Erection of bird boxes suitable for a range of bird species on retained trees or incorporated into buildings.
- Incorporate features to SuDS scheme(s), such as the use of native wetland plant species, to enhance their value.



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ECOLOGICAL ASSESSMENT																	
<b>Area:</b>	Heathfield																
<b>Site Name:</b>	Tintern, Heathfield																
<b>Site Reference Number:</b>	560/1210																
Site Description																	
A 0.4ha Site comprising a house and garden with trees, shrubs and scrub, amenity grassland, rather species poor grassland species poor hedge.																	
ECOLOGICAL BASELINE																	
Green Infrastructure Context (see Figure 21.1)																	
The Site is located within the broader High Weald landscape of small to medium sized fields, including both grassland and arable, set within a relatively extensive and intact hedgerow network which includes frequent trees. Woodland, including Ancient Woodland, is relatively plentiful and includes both large and small parcels. The Site lies on the north western side of Heathfield and forms one of a number of residential properties, often with quite large gardens, along the western side of the A267. To the north and east are residential areas but to the south west is open country of fields with hedges and woodland.																	
Desk Study: Designated Sites within 1km (see Figure 21.2)	Distance from Site																
<ul style="list-style-type: none"> <li>None</li> </ul>																	
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<i>Limenitis camilla</i>	White admiral																
<i>Somatochlora metallica</i>	Brilliant emerald																

<b>Notable Bird Inventory</b>	
<i>Ardea cinerea</i>	Grey heron
<i>Corvus corax</i>	Raven
<i>Phylloscopus sibilatrix</i>	Wood warbler
<b>Invasive Alien Species Inventory</b>	
<i>Allium triquetrum</i>	Three-cornered garlic
<i>Cotoneaster horizontalis</i>	Wall cotoneaster
<i>Crocsmia pottsii</i> x <i>aurea</i> = <i>C. x crocosmiiflora</i>	Montbretia
<i>Fallopia japonica</i>	Japanese Knotweed
<i>Gaultheria shallon</i>	Shallon
<i>Harmonia axyridis</i>	Harlequin Ladybird
<i>Impatiens glandulifera</i>	Indian balsam
<i>Prunus laurocerasus</i>	Cherry laurel
<i>Rhododendron ponticum</i>	Rhododendron
<b>Field Survey: Habitat Descriptions (see Figure 21/560)</b>	
<p><b>Poor semi-improved grassland</b> – The centre of the Site appears periodically mown. It is not species rich. Yorkshire fog <i>Holcus lanatus</i> and common bent <i>Agrostis capillaris</i> are the most abundant grasses, but perennial rye-grass <i>Lolium perenne</i> is frequent and red fescue <i>Festuca rubra</i> is also present. Soft rush <i>Juncus effusus</i> is locally frequent. Forb content is moderate and includes frequent creeping and buttercup <i>Ranunculus repens</i>, greater bird's foot trefoil <i>Lotus pedunculatus</i>, ribwort plantain <i>Plantago lanceolata</i>, common sorrel <i>Rumex acetosa</i>, wild angelica <i>Angelica sylvestris</i>, hogweed <i>Heracleum sphodyllum</i> and cat's ear <i>Hypochaeris radicata</i>, as well as common mouse ear <i>Cerastium fontanum</i>, broadleaved willowherb <i>Epilobium montanum</i>, dandelion <i>Taraxacum officinale</i> (agg.) and creeping and marsh thistles <i>Cirsium arvense</i> and <i>palustre</i>.</p> <p><b>Amenity grassland</b> – Immediately to the south of the house. Species poor and comprising a limited number of typical common and widespread species.</p> <p><b>Introduced shrub</b> – beds and borders of herbaceous planting.</p> <p><b>Trees and scrub</b> – on boundaries includes a mix of native and non-native species, including oak, pine and birch as well as invasive non-native Rhododendron and cherry laurel.</p> <p>The south western end of the Site supports dense scrub and trees of willow, alder, hawthorn and oak over bracken and bramble.</p> <p><b>Hedges</b> – species poor hedge of beech and cherry laurel on the southern boundary.</p> <p><b>Buildings</b> – house and garage with pitched and tiled roofs.</p>	
<b>Field Survey: Protected and Notable Species</b>	
No species considered notable for their nature conservation value recorded during the Phase I habitat field survey.	
<b>Field Survey: Invasive Non-native Species</b>	
Rhododendron and cherry laurel – widespread in garden	
<b>Assessment of Potential for Protected and Notable Species</b>	
<p><b>Great crested newts</b> – There are no ponds within the Site. However, OS maps and aerial images indicate the presence of a pond approximately 240m south of the Site. Scrub and boundary vegetation represents suitable terrestrial habitat for great crested newts within the Site. However, the distance to the pond and the relatively widespread availability of suitable terrestrial habitat near it reduces the probability of great crested newts being present in the Site.</p> <p><b>Reptiles</b> – Limited potential for the presence of reptiles along boundaries, comprising longer grass sward in comparison with the managed gardens.</p> <p><b>Breeding birds</b> – in trees and scrub</p>	

**Bats** – Trees and mature trees in particular, with features such as cracks and cavities, have potential to be used as roosts. The house may also have some potential to be used as a roost. Activity, including foraging and commuting, is most likely around trees.

**Dormice** – The scrub has potential to support dormice, although connectivity to more suitable habitat is limited.

**Badgers** – Potential for setts within the scrub and boundary vegetation, but may also use the Site foraging, although no field signs are recorded during the Site survey

### Recommendations for Further Survey

**Amphibian (including great crested newt)** – (March – June) of the pond to the south of the Site.

**Reptiles** – (May – June, September – October) in suitable habitat.

**Bats** – (inspections: year round; activity surveys April – October) in the first instance inspection of trees and house to determine the scope for further survey and activity surveys.

**Dormice** – (April – November) in suitable habitat.

**Badgers** – (Year round but Spring / Autumn optimal) of whole site.

### INDICATIVE ECOLOGICAL APPRAISAL

**Low to Moderate value** – house and garden but some of the grassland retains some diversity and the mature trees and scrub are of some value. The habitats and features have some potential to support notable/protected species.

### Impact Avoidance

In order to limit, as far as possible, potentially adverse effects of development including potential harm to the integrity of the wider green infrastructure network, effort should be made to avoid the more ecologically valuable parts of the Site by:

- Retaining and buffering the mature trees and their features.
- As far as possible and appropriate retaining and buffering habitats and features supporting notable/protected species, based on the results of more detailed surveys.

### Outline Mitigation

Should development at this Site proceed, generic (standard) mitigation for impacts upon habitats and species is set out below. Further detailed or species-specific mitigation may be required dependent upon the outcome of the recommended protected habitat or species surveys.

- Implementation of a Construction and environmental Management Plan (CEMP) to manage site-specific issues relating to the potential impacts of construction on ecological features of interest.
- Timing of vegetation clearance works to avoid the bird breeding season (March – August inclusive).
- Offset buffers to protect retained habitats (minimum 10m).
- Use of protective fencing to define construction areas and protect retained habitats.
- Avoidance of night-time working wherever possible. When not possible, use directional lighting to prevent lightshed into surrounding habitats.
- Inclusion of mammal ladders or similar in any trenches left open overnight.
- Sealing of pipework overnight, to prevent animals becoming trapped.
- Defined and bunded areas for fuel storage and refuelling to prevent spillages and pollution incidents;
- On-Site spill incident equipment, in the event of spillages of fuel or other materials. Specific measures will be required if any works are close to watercourses and/or waterbodies.
- Retain and buffer the mature trees.
- If great crested newts are found to be present in the pond to the south of the Site then measures should be put in place to prevent harming or killing them, including for example the erection of herptile fencing to exclude them from work areas, and possibly trapping and translocation to suitable

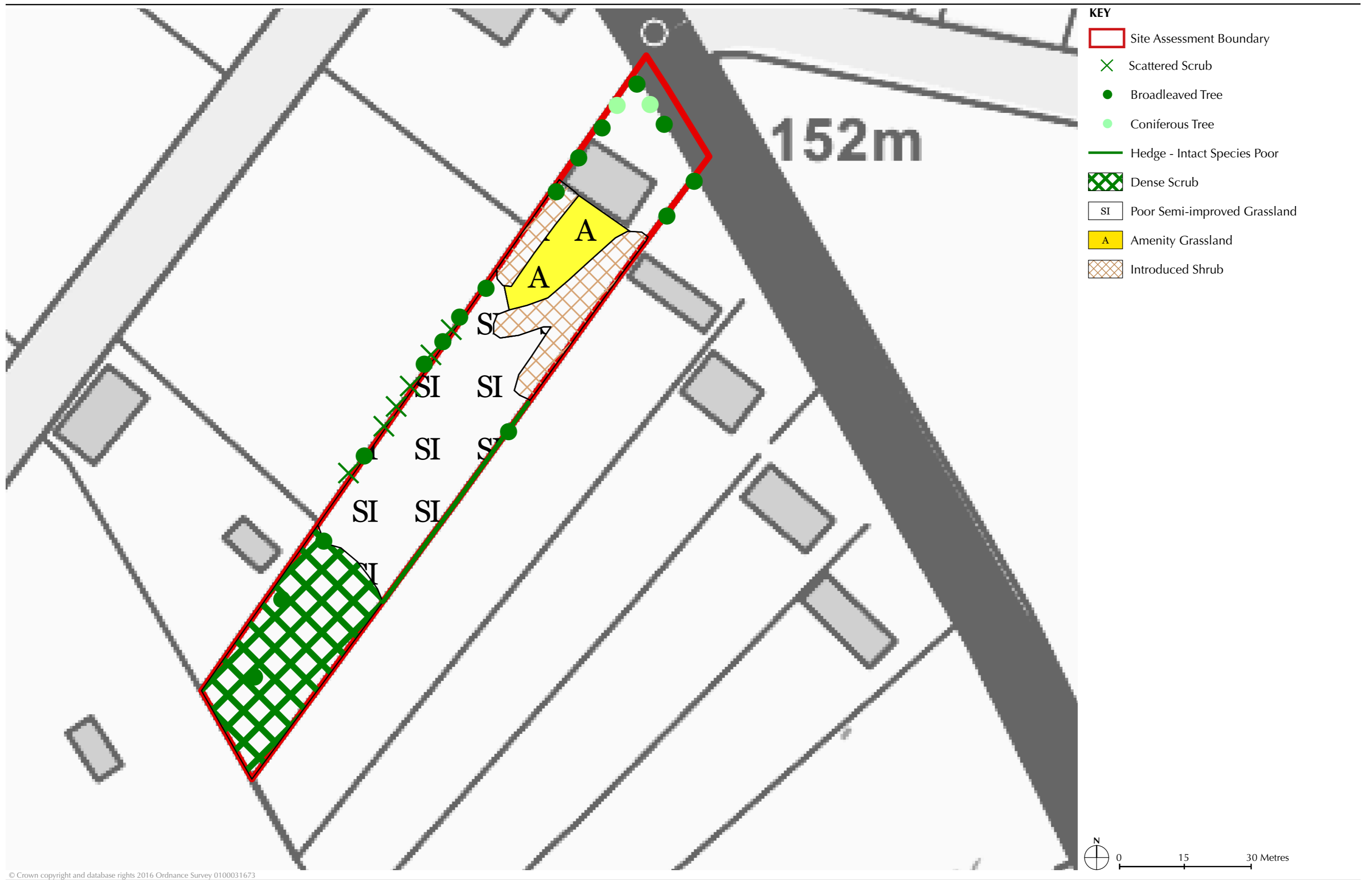
receptor areas elsewhere.

- If reptiles are found to be present, measures to prevent harm to them, including potentially translocation from the development Site to a suitable receptor site. Where feasible such receptor areas should be incorporated into the new development (for example in buffer strips beside retained hedges, as noted above).
- New development may need to incorporate bat roosts as alternative or replacement habitat if roosts are likely to be lost.
- Insofar as any proposed development of the Site allows, lighting design, particularly for the periphery of the Site should be minimised as far as possible. As a minimum, any lighting along Site boundaries that may potentially form important commuting corridors (e.g. hedgerows) or adjacent woodlands that may support bat roosts should make use of backboards and/or internal louvres to ensure light is directed into the Site and light spill into the adjacent areas of retained habitat is minimised.
- If dormice are found to be present the retention and appropriate buffering of scrub (as noted above).
- Development should avoid construction works within at least 30m of the nearest badger setts and seek to avoid prime foraging grounds identified through the badger survey and severance of commuting corridors within territories.

### **Potential Enhancement Opportunities**

Opportunities for enhancing, restoring and/or creating new habitats as an integral part of a Site's development that can also contribute to the District's wider ecological /green infrastructure network are identified below:

- Positively and appropriately manage retained habitats and features, including mature trees.
- Strengthen boundary vegetation by removal of non-native species and planting of appropriate native species.
- Habitat creation, ideally located adjacent to retained or adjoining habitat, for example in a corner of the Site, or to form habitat corridors or links. To include for example:
  - Wildlife pond(s), included for example as part of a SuDS scheme;
  - Species-rich grassland and associated features for supporting a variety of terrestrial invertebrates;
  - Scrub and trees; and
  - Creation of dead wood habitats and other habitat piles.
- Erection of bat boxes suitable for a range of bat species, on retained trees or incorporated into buildings where they will remain unlit.
- Erection of bird boxes suitable for a range of bird species on retained trees or incorporated into buildings.



ECOLOGICAL ASSESSMENT																	
<b>Area:</b>	Heathfield																
<b>Site Name:</b>	Morrensfield, Little London Road, Heathfield																
<b>Site Reference Number:</b>	561/1210																
Site Summary Description																	
A 0.39ha Site comprising a house and garden with amenity grassland, species poor hedges, beds and borders and trees including mature specimens.																	
ECOLOGICAL BASELINE																	
Green Infrastructure Context (see Figure 21.1)																	
The Site is located within the broader High Weald landscape of small to medium sized fields, including both grassland and arable, set within a relatively extensive and intact hedgerow network which includes frequent trees. Woodland, including Ancient Woodland, is relatively plentiful and includes both large and small parcels. The Site lies on the north western side of Heathfield and forms one of a number of residential properties, often with quite large gardens, along the western side of the A267. To the north and east are residential areas but to the south west is open country of comprising fields with hedges and woodland.																	
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**Notable Bird Inventory***Ardea cinerea**Corvus corax**Phylloscopus sibilatrix*

Grey heron

Raven

Wood warbler

**Invasive Alien Species Inventory***Allium triquetrum**Cotoneaster horizontalis**Crocsmia pottsii* x *aurea* = *C. x crocosmiiflora**Fallopia japonica**Gaultheria shallon**Harmonia axyridis**Impatiens glandulifera**Prunus laurocerasus**Rhododendron ponticum*

Three-cornered garlic

Wall cotoneaster

Montbretia

Japanese Knotweed

Shallon

Harlequin Ladybird

Indian balsam

Cherry laurel

Rhododendron

**Field Survey: Habitat Descriptions (see Figure 21/561)**

**Amenity grassland** – Much of the garden comprises a species poor sward comprising typical common and widespread species, although birds foot trefoil *Lotus* sp., common sorrel *Rumex acetosa* and common knapweed *Centaurea nigra* are frequent to occasional in parts, particularly the south western part.

**Poor semi-improved grassland** – There is a very small area of taller sward in the west of the garden which includes frequent wild angelica *Angelica sylvestris* and sneezewort *Achillea ptarmica*.

**Trees** – Mature trees, such as oak and Scot's pines beside the A265.

**Introduced shrub** – Beds and borders of herbaceous planting.

**Hedges** – Species poor and largely non-native, including beech and cherry laurel on the northern and conifer on the southern boundaries.

**Buildings** – House with pitched and tiled roof.

**Field Survey: Protected and Notable Species**

No species considered notable for their nature conservation value recorded during the Phase I habitat field survey.

**Field Survey: Invasive Non-native Species**

Cherry laurel – for example in hedges.

**Assessment of Potential for Protected and Notable Species**

**Great crested newts** – There are no ponds within the Site. However, OS maps and aerial images indicate the presence of a pond approximately 220m south of the Site. Hedges and other boundary vegetation represents suitable terrestrial habitat for great crested newts within the Site. However, the distance to the pond, the relatively widespread availability of suitable terrestrial habitat near it and the limited availability of such habitats within the Site means the probability of great crested newts being present in the Site is considered to be very low.

**Breeding birds** – In trees, hedges and shrubs.

**Bats** – Trees and mature trees in particular, with features such as cracks and cavities, have potential to be used as roosts. The house may also have some potential to be used as a roost. Activity, including foraging and commuting, is most likely around trees.

### Recommendations for Further Survey (and optimal survey timings)

**Bats** – (inspections: year round; activity surveys April – October) in the first instance inspection of trees and house to determine the scope for further survey.

### INDICATIVE ECOLOGICAL APPRAISAL

**Low value** – house and garden comprising a significant proportion of non-native and/or species-poor vegetation. The mature trees are probably the feature of greatest value.  
The Sites habitats and features have low potential to support notable/protected species.

### Impact Avoidance

In order to limit, as far as possible, potentially adverse effects of development including potential harm to the integrity of the wider green infrastructure network, effort should be made to avoid the more ecologically valuable parts of the Site by:

- Retaining the mature trees and their features.
- As far as possible and appropriate retaining and buffering habitats and features supporting notable/protected species, based on the results of more detailed surveys.

### Outline Mitigation

Should development at this Site proceed, generic (standard) mitigation for impacts upon habitats and species is set out below. Further detailed or species-specific mitigation may be required dependent upon the outcome of the recommended protected habitat or species surveys.

- Implementation of a Construction and Environmental Management Plan (CEMP) to manage site-specific issues relating to the potential impacts of construction on ecological features of interest.
- Timing of vegetation clearance works to avoid the bird breeding season (March – August inclusive).
- Offset buffers to protect retained habitats (minimum 10m).
- Use of protective fencing to define construction areas and protect retained habitats.
- Avoidance of night-time working wherever possible. When not possible, use directional lighting to prevent lightshed into surrounding habitats.
- Inclusion of mammal ladders or similar in any trenches left open overnight.
- Sealing of pipework overnight, to prevent animals becoming trapped.
- Defined and bunded areas for fuel storage and refuelling to prevent spillages and pollution incidents.
- On-Site spill incident equipment, in the event of spillages of fuel or other materials. Specific measures will be required if any works are close to watercourses and/or waterbodies.
- New development may need to incorporate bat roosts as alternative or replacement habitat if roosts are likely to be lost.
- Insofar as any proposed development of the Site allows, lighting design, particularly for the periphery of the Site should be minimised as far as possible. As a minimum, any lighting along Site boundaries that may potentially form important commuting corridors (e.g. hedgerows) or adjacent woodlands that may support bat roosts should make use of backboards and/or internal louvres to ensure light is directed into the Site and light spill into the adjacent areas of retained habitat is minimised.

### Potential Enhancement Opportunities

Opportunities for enhancing, restoring and/or creating new habitats as an integral part of a Site's development that can also contribute to the District's wider ecological /green infrastructure network are identified below:

- Positively and appropriately manage retained habitats and features, including mature trees
- Remove invasive non-native cherry laurel and replace with appropriate native shrub species.
- Replace species poor non-native hedges on boundaries with hedges comprising appropriate native species.
- Habitat creation, ideally located adjacent to retained or adjoining habitat, for example at the south western end of the Site, or to form habitat corridors or links. To include for example:
  - Wildlife pond(s), included for example as part of a SuDS scheme;
  - Species-rich grassland and associated features for supporting a variety of terrestrial invertebrates;
  - Scrub and trees; and
  - Creation of dead wood habitats and other habitat piles.
- Erection of bat boxes suitable for a range of bat species, on retained trees or incorporated into buildings where they will remain unlit.
- Erection of bird boxes suitable for a range of bird species on retained trees or incorporated into buildings.
- Incorporate features to SuDS scheme(s), such as the use of native wetland plant species, to enhance their value.



ECOLOGICAL ASSESSMENT	
<b>Settlement/Area:</b>	Heathfield
<b>Site Address:</b>	Pine Ridge Cottage, Little London Road, Heathfield
<b>Site Reference Number:</b>	562/1210
Site Summary Description	
A 1.59ha Site comprising a house and garden with trees, shrubs, amenity and species poor grassland and a relatively species rich grassland field with adjoining woodland and hedges.	
ECOLOGICAL BASELINE	
Green Infrastructure Context (see Figure 21.1)	
The Site is located within a characteristic High Weald landscape of small to medium sized fields, including both grass and arable, set within a relatively extensive and intact hedgerow network which includes frequent trees. Woodland, including Ancient Woodland, is relatively plentiful, the majority of which are relatively large in size. The Site is located on the western fringes of Heathfield where more intense urban development gives way to ribbon development along the A267. The Site is bordered on either side by single residential properties with relatively large gardens and grounds. The gardens are delineated by hedgerows and mature trees, with hedged fields lying to the south. The Site directly borders the A267 to the north, beyond which rows of smaller houses and gardens form the western edge of Heathfield's built extent.	
Desk Study : Designated Sites within 1km (See Figure 21.2)	Distance from Site
<ul style="list-style-type: none"> <li>None</li> </ul>	
Desk Study: BAP Priority Habitats within 1km	Distance from Site
<ul style="list-style-type: none"> <li>Ancient &amp; semi-natural woodland – Heatherden Wood</li> <li>Ancient &amp; semi-natural woodland – Coalend / Buttons / Dunly Woods</li> <li>Ancient &amp; semi-natural woodland – Heatherden Shaw</li> <li>Ancient &amp; semi-natural woodland – Back Lane Shaw</li> <li>Ancient &amp; semi-natural woodland – Holman's Wood ext.</li> <li>Ancient &amp; semi-natural woodland – New Pond Shaw</li> <li>Ancient &amp; semi-natural woodland – Broadfield Wood ext.</li> <li>Ancient &amp; semi-natural woodland – Runtington / Crock-kiln / Geer's Woods</li> <li>Ancient &amp; semi-natural woodland – Markly Wood</li> <li>Ancient &amp; semi-natural woodland – Markly Wood ext.</li> <li>Lowland heath BAP priority habitat (4 areas, un-named)</li> </ul>	<ul style="list-style-type: none"> <li>80m North West</li> <li>700m North West</li> <li>760m WSW</li> <li>860m South West</li> <li>510m South</li> <li>920m South</li> <li>955m South</li> <li>950m South East</li> <li>150m North</li> <li>825m North East</li> <li>610-820m North</li> </ul>
Desk Study: Protected and Notable Species within 1km	
<b>Protected Species</b> <i>Myotis nattereri</i> Natterer's bat <i>Pipistrellus pipistrellus</i> Common Pipistrelle (45 kHz) bat <i>Plecotus auritus</i> Brown Long-eared bat  <b>Sussex BAP Species</b> <i>Bufo bufo</i> Common toad <i>Erinaceus europaeus</i> European hedgehog <i>Erythronium viridulum</i> Small Red-eyed Damselfly	

<i>Limenitis camilla</i>	White admiral
<b>Sussex Rare Species Inventory</b> <i>Somatochlora metallica</i>	Brilliant emerald
<b>Notable Bird Inventory</b> <i>Ardea cinerea</i> <i>Corvus corax</i> <i>Phylloscopus sibilatrix</i>	Grey heron Raven Wood warbler
<b>Invasive Alien Species Inventory</b> <i>Allium triquetrum</i> <i>Cotoneaster horizontalis</i> <i>Crocsmia pottsii</i> x <i>aurea</i> = <i>C. x crocosmiiflora</i> <i>Fallopia japonica</i> <i>Gaultheria shallon</i> <i>Harmonia axyridis</i> <i>Impatiens glandulifera</i> <i>Prunus laurocerasus</i> <i>Rhododendron ponticum</i>	Three-cornered garlic Wall cotoneaster Montbretia Japanese Knotweed Shallon Harlequin Ladybird Indian balsam Cherry laurel Rhododendron
<b>Field Survey: Habitat Descriptions (See Figure 21/562)</b>	
<p><b>Semi-improved neutral grassland</b> – Appears to be currently unmanaged and forms a relatively tall sward (approx. 10-25cm) with scattered oak saplings. However, it is moderately species rich. Yorkshire fog <i>Holcus lanatus</i> and common bent <i>Agrostis capillaris</i> are the most abundant grasses, but sweet vernal grass <i>Anthoxanthum odoratum</i> is frequent. Forb content is quite high, around 50% and includes abundant/frequent creeping and meadow buttercup <i>Ranunculus repens</i> and acris, greater bird's foot trefoil <i>Lotus pedunculatus</i>, meadow vetchling <i>Lathyrus pratensis</i>, lesser stitchwort <i>Stellaria graminea</i>, ribwort plantain <i>Plantago lanceolata</i>, germander speedwell <i>Veronica chamaedrys</i> and common knapweed <i>Centaurea nigra</i>, as well as self-heal <i>Prunella vulgaris</i>, red and white clover <i>Trifolium pratense</i> and <i>repens</i>, tufted vetch <i>Vicia cracca</i>, tormentil <i>Potentilla erecta</i>, fleabane <i>Pulicaria dysenterica</i>, yarrow <i>Achillea millefolium</i> and marsh thistle <i>Cirsium palustre</i>.</p> <p><b>Poor semi-improved grassland</b> – small species-poor area in the north west of the Site comprising largely of Yorkshire fog, common bent and creeping buttercup, but with some common knapweed.</p> <p><b>Amenity grassland</b> – within the garden this is species poor and comprises a limited number of typical common and widespread species.</p> <p><b>Tall ruderal</b> – stands of nettle and similar in the grassland field and the garden.</p> <p><b>Trees and scrub</b> – in and around the garden comprises both native and non-native species, including mature ash and beech.</p> <p><b>Woodland</b> – a small area in the south west of the Site with poplar, oak, birch, beech, ash, rowan, willow, hazel and holly. The field layer appears species poor and seems to comprise largely of bramble.</p> <p><b>Hedges</b> – there are species-rich hedges on the southern and eastern boundaries. The one on the southern boundary includes mature trees. There are also short species poor non-native hedges within the garden.</p> <p><b>Introduced shrub</b> – small areas including invasive non-native <i>Rhododendron</i> and cherry laurel.</p> <p><b>Invasive non-natives</b> – there is a stand of the invasive non-native Japanese knotweed on the edge of the woodland at <b>TN1</b>.</p> <p><b>Buildings</b> – includes a house and outbuilding with pitched and tiled roofs.</p>	
<b>Field Survey: Protected and Notable Species</b>	
No species considered notable for their nature conservation value recorded during the Phase I habitat field survey.	

<b>Field Survey: Invasive Non-native Species</b>
Rhododendron and cherry laurel – in the garden.
<b>Assessment of Potential for Protected and Notable Species</b>
<p><b>Great crested newts</b> – There are no ponds within the Site. However, OS maps indicate the presence of ponds within woodland approximately 300-330m west and south west of the Site. There are also ponds to the north of the A265, more than 400m from the Site. However, these ponds are relatively distant and the A265 represents a significant barrier to dispersal for great crested newts. Woodland, scrub, hedges, tall ruderal and the unmanaged grassland all represent suitable terrestrial habitat for great crested newts within the Site.</p> <p><b>Reptiles</b> – Potential in unmanaged grassland along boundaries and areas of tall ruderal and scrub edge.</p> <p><b>Breeding birds</b> – In woodland, hedges, trees and scrub.</p> <p><b>Bats</b> – Trees and mature trees in particular, with features such as cracks and cavities have potential to be used as roosts. Given the habitats and features present activity, including foraging and commuting, is likely throughout, but especially in and around the woodland to the south and the trees, scrub and hedges. The house, particularly where there may be loose roof tiles or gaps within the eaves, may also have potential to be used as roosts.</p> <p><b>Dormice</b> – Moderate potential in woodland, scrub and hedge.</p> <p><b>Badgers</b> – Potential for setts within the woodland, scrub and hedge, but with or without setts badgers may also use any part of the Site for foraging. However, neither setts nor foraging signs are recorded during the survey.</p>
<b>Recommendations for Further Survey (including optimal timings)</b>
<p><b>Botanical</b> – (May – June) – of the semi-improved neutral grassland.</p> <p><b>Amphibian (including great crested newt)</b> – (March – June) of the ponds to the west and south west of the Site.</p> <p><b>Reptiles</b> – (May – June, September – October) in suitable habitat throughout the Site.</p> <p><b>Bats</b> – (inspections: year round; activity surveys April – October) in the first instance inspection of trees and buildings to determine the scope for further survey.</p> <p><b>Dormice</b> – (April – November) in suitable habitat.</p> <p><b>Badgers</b> – (Year round but Spring / Autumn optimal) of whole site.</p>
<b>INDICATIVE ECOLOGICAL APPRAISAL</b>
<p><b>Moderate</b> – includes relatively species rich grassland, woodland, species rich hedges and mature trees. Includes habitats and features that have the potential to support notable/protected species. These habitats and features are relatively well connected within the Site and with the wider ecological network, including direct connections to the Ancient Woodland to the west. Includes habitats and features that have the potential to support notable/protected species.</p>
<b>Impact Avoidance</b>
<p>In order to limit, as far as possible, potentially adverse effects of development including potential harm to the integrity of the wider green infrastructure network, effort should be made to avoid the more ecologically valuable parts of the Site by:</p> <ul style="list-style-type: none"> <li>• Retaining the mature trees and their features.</li> <li>• Consider retaining the semi-improved neutral grassland.</li> <li>• As far as possible and appropriate retaining and buffering habitats and features supporting notable/protected species, based on the results of more detailed surveys.</li> </ul>

## Outline Mitigation

Should development at this Site proceed, generic (standard) mitigation for impacts upon habitats and species is set out below. Further detailed or species-specific mitigation may be required dependent upon the outcome of the recommended protected habitat or species surveys.

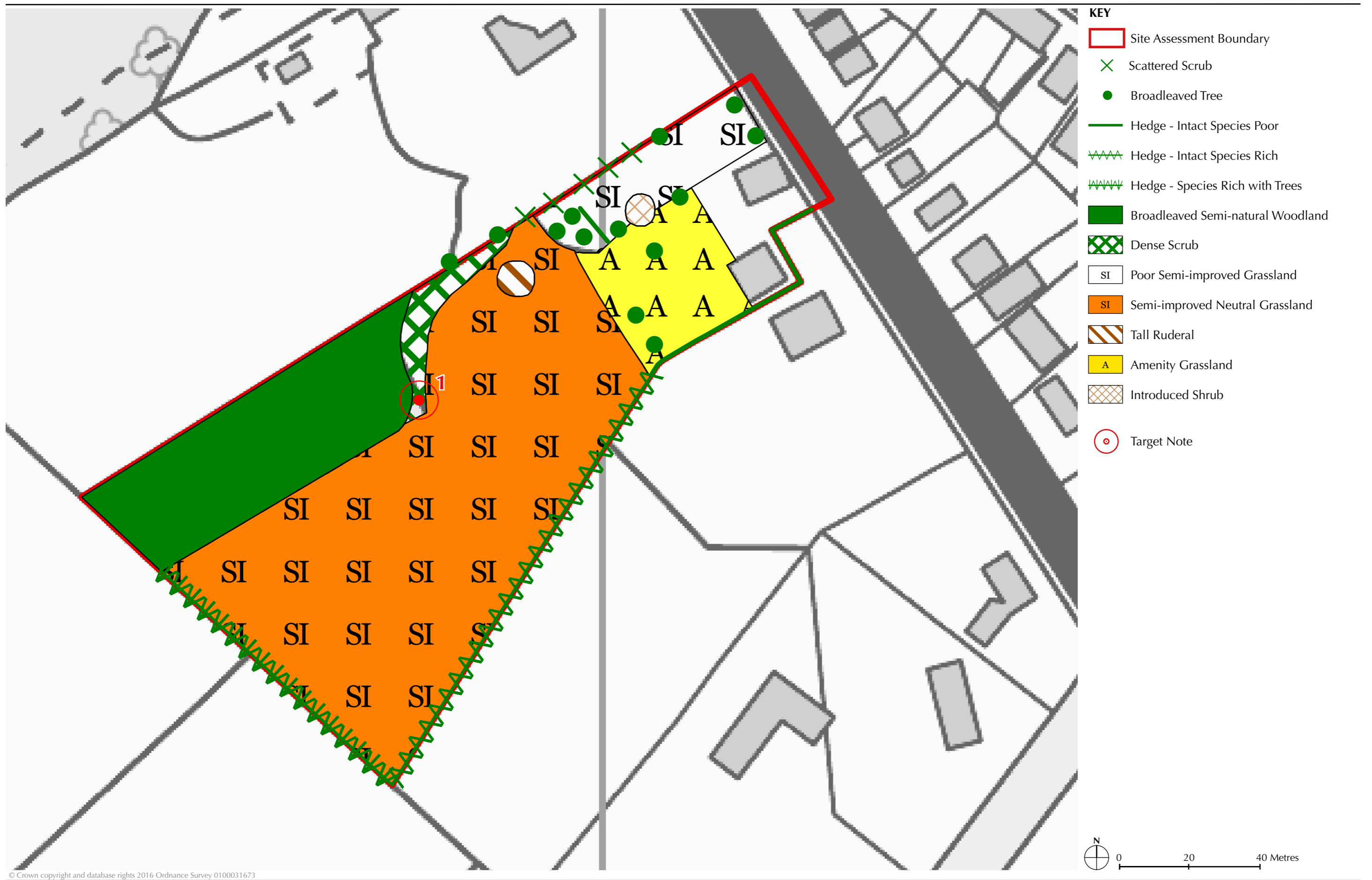
- Implementation of a Construction and Environmental Management Plan (CEMP) to manage site-specific issues relating to the potential impacts of construction on ecological features of interest.
- Timing of vegetation clearance works to avoid the bird breeding season (March – August inclusive).
- Offset buffers to protect retained habitats (minimum 10m).
- Use of protective fencing to define construction areas and protect retained habitats.
- Avoidance of night-time working wherever possible. When not possible, use directional lighting to prevent lightshed into surrounding habitats.
- Inclusion of mammal ladders or similar in any trenches left open overnight.
- Sealing of pipework overnight, to prevent animals becoming trapped.
- Defined and bunded areas for fuel storage and refuelling to prevent spillages and pollution incidents.
- On-Site spill incident equipment, in the event of spillages of fuel or other materials. Specific measures will be required if any works are close to watercourses and/or waterbodies.
- If great crested newts are found to be present in either of the ponds to the south west of the Site then measures should be put in place to prevent harming or killing them, including for example the erection of herptile fencing to exclude them from work areas and possibly trapping and translocation to suitable receptor areas elsewhere.
- If reptiles are found to be present, measures to prevent harm to them, including potentially translocation from the development Site to a suitable receptor site. Where feasible such receptor areas should be incorporated into the new development (for example in buffer strips beside retained hedges, as noted above).
- New development may need to incorporate bat roosts as alternative or replacement habitat if roosts are likely to be lost.
- Insofar as any proposed development of the Site allows, lighting design, particularly for the periphery of the Site should be minimised as far as possible. As a minimum, any lighting along Site boundaries that may potentially form important commuting corridors (e.g. hedgerows) or adjacent woodlands that may support bat roosts should make use of backboards and/or internal louvres to ensure light is directed into the Site and light spill into the adjacent areas of retained habitat is minimised.
- If dormice are found to be present the retention and appropriate buffering of woodland and hedges (as noted above).
- Development should avoid construction works within at least 30m of the nearest badger setts and seek to avoid prime foraging grounds identified through the badger survey and severance of commuting corridors within territories. Control of invasive non-native Japanese knotweed in line with Environment Agency guidelines.

## Potential Enhancement Opportunities

Opportunities for enhancing, restoring and/or creating new habitats as an integral part of a Site's development that can also contribute to the District's wider ecological /green infrastructure network are identified below:

- Positively and appropriately manage retained habitats and features, including woodland, hedges, mature trees and grassland.
- Strengthen boundary vegetation, for example on boundaries in the northern part of the Site by removal of non-native species and planting of appropriate native species.
- Habitat creation, ideally located adjacent to retained or adjoining habitat, or to form habitat corridors or links, particularly along the Site's boundaries. To include for example:
  - Wildlife pond(s), included for example as part of a SuDS scheme;
  - Species-rich grassland and associated features for supporting a variety of terrestrial invertebrates;

- Scrub and trees; and
- Creation of dead wood habitats and other habitat piles.
- Erection of bat boxes suitable for a range of bat species, on retained trees or incorporated into buildings where they will remain unlit.
- Erection of bird boxes suitable for a range of bird species on retained trees or incorporated into buildings.



ECOLOGICAL ASSESSMENT																			
<b>Settlement/Area:</b>	Heathfield																		
<b>Site Address:</b>	Old Common, Little London Road, Cross-in-Hand, Heathfield																		
<b>Site Reference Number:</b>	564/1210																		
Site Summary Description																			
A 1.82ha Site comprising a house and garden with trees, shrubs and amenity grassland and a relatively species rich grassland field with adjoining scrub and trees and hedge. The Site adjoins Heatherden Wood Ancient Woodland.																			
ECOLOGICAL BASELINE																			
Green Infrastructure Context (see Figure 21.1)																			
The Site is located within a characteristic High Weald landscape of small to medium sized fields, including both grass and arable, set within a relatively extensive and intact hedgerow network which includes frequent trees. Woodland, including Ancient Woodland, is relatively plentiful, the majority of which are relatively large in size. The Site is located on the western fringes of Heathfield where more intense urban development gives way to ribbon development along the A267. The Site is bordered on either side by single residential properties with relatively large gardens and grounds. The gardens are delineated by hedgerows and mature trees, with hedged fields lying to the south and Heatherden Wood Ancient Woodland to the west. The Site directly borders the A267, beyond which rows of smaller houses and gardens form the western edge of Heathfield's built extent.																			
Desk Study : Designated Sites within 1km (See Figure 21.2)	Distance from Site																		
<ul style="list-style-type: none"> <li>None</li> </ul>																			
Desk Study: BAP Priority Habitats within 1km	Distance from Site																		
Ancient & semi-natural woodland – Heatherden Wood Ancient & semi-natural woodland – Coalend / Buttons / Dunly Woods Ancient & semi-natural woodland – Heatherden Shaw Ancient & semi-natural woodland – Back Lane Shaw Ancient & semi-natural woodland – Holman's Wood ext. Ancient & semi-natural woodland – Markly Wood Ancient & semi-natural woodland – Markly Wood ext. Lowland heath BAP priority habitat (4 areas, un-named)	Adjacent North West 625m North West 675m WSW 870m South West 575m South 120m North 840m North East 540-975m N - NE																		
Desk Study: Protected and Notable Species within 1km																			
<table> <tr> <td><b>Protected Species</b></td><td></td></tr> <tr> <td><i>Myotis nattereri</i></td><td>Natterer's bat</td></tr> <tr> <td><i>Pipistrellus pipistrellus</i></td><td>Common Pipistrelle (45 kHz) bat</td></tr> <tr> <td><i>Plecotus auritus</i></td><td>Brown Long-eared bat</td></tr> <tr> <td><b>Sussex BAP Species</b></td><td></td></tr> <tr> <td><i>Bufo bufo</i></td><td>Common toad</td></tr> <tr> <td><i>Erinaceus europaeus</i></td><td>European hedgehog</td></tr> <tr> <td><i>Erythromma viridulum</i></td><td>Small Red-eyed Damselfly</td></tr> <tr> <td><i>Limenitis camilla</i></td><td>White admiral</td></tr> </table>		<b>Protected Species</b>		<i>Myotis nattereri</i>	Natterer's bat	<i>Pipistrellus pipistrellus</i>	Common Pipistrelle (45 kHz) bat	<i>Plecotus auritus</i>	Brown Long-eared bat	<b>Sussex BAP Species</b>		<i>Bufo bufo</i>	Common toad	<i>Erinaceus europaeus</i>	European hedgehog	<i>Erythromma viridulum</i>	Small Red-eyed Damselfly	<i>Limenitis camilla</i>	White admiral
<b>Protected Species</b>																			
<i>Myotis nattereri</i>	Natterer's bat																		
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<i>Limenitis camilla</i>	White admiral																		

<b>Sussex Rare Species Inventory</b>	
<i>Somatochlora metallica</i>	Brilliant emerald
<b>Notable Bird Inventory</b>	
<i>Ardea cinerea</i>	Grey heron
<i>Corvus corax</i>	Raven
<i>Phylloscopus sibilatrix</i>	Wood warbler
<b>Invasive Alien Species Inventory</b>	
<i>Allium triquetrum</i>	Three-cornered garlic
<i>Cotoneaster horizontalis</i>	Wall cotoneaster
<i>Crocsmia pottsii</i> x <i>aurea</i> = <i>C. x crocosmiiflora</i>	Montbretia
<i>Fallopia japonica</i>	Japanese Knotweed
<i>Gaultheria shallon</i>	Shallon
<i>Harmonia axyridis</i>	Harlequin Ladybird
<i>Impatiens glandulifera</i>	Indian balsam
<i>Prunus laurocerasus</i>	Cherry laurel
<i>Rhododendron ponticum</i>	Rhododendron
<b>Field Survey: Habitat Descriptions (See Figure 21/564)</b>	
<p><b>Semi-improved neutral grassland</b> – Appears to be currently unmanaged and forms a moderately tall sward with scattered bramble and willow saplings. However, it is moderately species rich. Yorkshire fog <i>Holcus lanatus</i> and common bent <i>Agrostis capillaris</i> are the most abundant grasses, but sweet vernal grass <i>Anthoxanthum odoratum</i> is frequent and crested dog's tail <i>Cynosorus cristatus</i>, cocksfoot <i>Dactylis glomerata</i>, tufted hair grass <i>Deschampsia cespitosa</i> and red fescue <i>Festuca rubra</i> are at least occasional. Glaucus sedge <i>Carex flacca</i> is frequent or abundant and rushes, including soft, compact and jointed rush <i>Juncus effusus</i>, <i>conglomeratus</i> and <i>articulatus</i> are frequent. Forb content is high, at least 50% and includes abundant /frequent creeping buttercup <i>Ranunculus repens</i>, greater bird's foot trefoil <i>Lotus pedunculatus</i>, tormentil <i>Potentilla erecta</i>, ribwort plantain <i>Plantago lanceolata</i>, common knapweed <i>Centaurea nigra</i> and fleabane <i>Pulicaria dysenterica</i>, as well as lesser spearwort <i>Ranunculus flammula</i>, self-heal <i>Prunella vulgaris</i>, red clover <i>Trifolium pratense</i>, marsh woundwort <i>Stachys palustris</i>, water mint <i>Mentha aquatica</i>, hemp agrimony <i>Eupatoria cannabina</i> and marsh thistle <i>Cirsium palustre</i>.</p> <p><b>Amenity grassland</b> – Within the garden is species poor and comprises a limited number of typical common and widespread species.</p> <p><b>Tall ruderal</b> – Stands of nettle and similar beside scrub on the northern edge of the grassland field and in the north east corner of the garden.</p> <p><b>Trees and scrub</b> – In and around the garden comprises both native and non-native species, including mature oak.</p> <p>The western part of the northern boundary includes a section of scrub and trees forming woodland edge adjoining Heatherden Wood Ancient Woodland. It includes birch, beech and sycamore as well as willow, holly and the invasive non-native Rhododendron and cherry laurel. The field layer includes ivy, bramble, broad buckler fern <i>Dryopteris dilatata</i>, dog violet <i>Viola riviniana</i> and the Ancient Woodland Indicator Species wood sedge <i>Carex sylvatica</i> and barren strawberry <i>Potentilla sterilis</i>.</p> <p><b>Hedges</b> – There is a species-rich hedge with mature trees on the south western boundary.</p> <p><b>Introduced shrub</b> – Beds, borders and specimens and including invasive non-native <i>Rhododendron</i>.</p> <p><b>Buildings</b> – Includes a house with pitched and tiled roof as well as a number of outbuildings.</p>	
<b>Field Survey: Protected and Notable Species</b>	
No species considered notable for their nature conservation value recorded during the Phase I habitat field survey.	

### Field Survey: Invasive Non-native Species

Rhododendron and cherry laurel – widespread in the garden and present in the edge of Heatherden Wood.

### Assessment of Potential for Protected and Notable Species

**Great crested newts** – There are no ponds within the Site. However, OS maps indicate the presence of ponds within woodland approximately 250-300m south west of the Site. There are also ponds to the north of the A265, more than 400m from the Site. However, these ponds are relatively distant and the A265 represents a significant barrier to dispersal for great crested newts. Woodland edge, scrub, hedges, tall ruderal and the unmanaged grassland all represent suitable terrestrial habitat for great crested newts within the Site.

**Reptiles** – potential in unmanaged grassland, especially along boundaries and areas of tall ruderal and scrub edge.

**Breeding birds** – in woodland edge, hedge, trees and scrub.

**Bats** – Trees and mature trees in particular, with features such as cracks and cavities have potential to be used as roosts. Given the habitats and features present, activity including foraging and commuting, is likely throughout, but especially in and around woodland and trees, scrub and hedges. The house, particularly where there may be loose roof tiles or gaps within the eaves, may also have potential to be used as roosts.

**Dormice** – High potential in woodland edge, scrub and hedge.

**Badgers** – Potential for setts within the woodland, scrub and hedge, but with or without setts badgers may also use any part of the Site for foraging. However, neither setts nor foraging signs are recorded during the survey.

### Recommendations for Further Survey (including optimal timings)

**Botanical** – (May – June) – of the semi-improved neutral grassland.

**Amphibian (including great crested newt)** – (March – June) of the ponds to the south west of the Site.

**Reptiles** – (May – June, September – October) in suitable habitat throughout the Site.

**Bats** – (inspections: year round; activity surveys April – October) in the first instance inspection of trees and house to determine the scope for further survey.

**Dormice** – (April – November) in suitable habitat.

**Badgers** – (Year round but Spring / Autumn optimal) of whole site.

### INDICATIVE ECOLOGICAL APPRAISAL

**Moderate value** – includes relatively species rich grassland, woodland edge, species rich hedge and mature trees. These habitats and features are relatively well connected within the Site and with the wider ecological network, including Ancient Woodland, which enhances their value. Includes habitats and features that have the potential to support notable/protected species.

### Impact Avoidance

In order to limit, as far as possible, potentially adverse effects of development including potential harm to the integrity of the wider green infrastructure network, effort should be made to avoid the more ecologically valuable parts of the Site by:

- Buffering the boundary of Heatherden Wood Ancient Woodland.
- Retaining the mature trees and their features.
- Consider retaining the semi-improved neutral grassland.
- As far as possible and appropriate retaining and buffering habitats and features supporting notable/protected species, based on the results of more detailed surveys.

## Outline Mitigation

Should development at this Site proceed, generic (standard) mitigation for impacts upon habitats and species is set out below. Further detailed or species-specific mitigation may be required dependent upon the outcome of the recommended protected habitat or species surveys.

- Implementation of a Construction and Environmental Management Plan (CEMP) to manage site-specific issues relating to the potential impacts of construction on ecological features of interest.
- Timing of vegetation clearance works to avoid the bird breeding season (March – August inclusive).
- Offset buffers to protect retained habitats (minimum 10m).
- Use of protective fencing to define construction areas and protect retained habitats.
- Avoidance of night-time working wherever possible. When not possible, use directional lighting to prevent lightshed into surrounding habitats.
- Inclusion of mammal ladders or similar in any trenches left open overnight.
- Sealing of pipework overnight, to prevent animals becoming trapped.
- Defined and bunded areas for fuel storage and refuelling to prevent spillages and pollution incidents.
- On-Site spill incident equipment, in the event of spillages of fuel or other materials. Specific measures will be required if any works are close to watercourses and/or waterbodies.
- If great crested newts are found to be present in either of the ponds to the south west of the Site then measures should be put in place to prevent harming or killing them, including for example the erection of herptile fencing to exclude them from work areas and possibly trapping and translocation to suitable receptor areas elsewhere.
- If reptiles are found to be present, measures to prevent harm to them, including potentially translocation from the development Site to a suitable receptor site. Where feasible such receptor areas should be incorporated into the new development (for example in buffer strips beside retained hedges, as noted above).
- New development may need to incorporate bat roosts as alternative or replacement habitat if roosts are likely to be lost.
- Insofar as any proposed development of the Site allows, lighting design, particularly for the periphery of the Site should be minimised as far as possible. As a minimum, any lighting along Site boundaries that may potentially form important commuting corridors (e.g. hedgerows) or adjacent woodlands that may support bat roosts should make use of backboards and/or internal louvres to ensure light is directed into the Site and light spill into the adjacent areas of retained habitat is minimised.
- If dormice are found to be present the retention and appropriate buffering of woodland (as noted above).
- Development should avoid construction works within at least 30m of the nearest badger setts and seek to avoid prime foraging grounds identified through the badger survey and severance of commuting corridors within territories.

### Potential Enhancement Opportunities

Opportunities for enhancing, restoring and/or creating new habitats as an integral part of a Site's development that can also contribute to the District's wider ecological /green infrastructure network are identified below:

- Positively and appropriately manage retained habitats and features, including hedges, mature trees and grassland.
- Strengthen boundary vegetation, for example on boundaries in the northern part of the Site by removal of non-native species and planting of appropriate native species.
- Habitat creation, ideally located adjacent to retained or adjoining habitat, or to form habitat corridors or links. To include for example:
  - Wildlife pond(s), included for example as part of a SuDS scheme;
  - Species-rich grassland and associated features for supporting a variety of terrestrial invertebrates;
  - Scrub and trees; and
  - Creation of dead wood habitats and other habitat piles.
- Erection of bat boxes suitable for a range of bat species, on retained trees or incorporated into buildings where they will remain unlit.
- Erection of bird boxes suitable for a range of bird species on retained trees or incorporated into buildings.



ECOLOGICAL ASSESSMENT																	
<b>Settlement/Area:</b>	Heathfield																
<b>Site Address:</b>	Lion's Lodge, Heathfield																
<b>Site Reference Number:</b>	565/1210																
Site Summary Description																	
A 0.38ha Site comprising a house and garden with amenity grassland, species poor hedges, a pond, beds and borders and trees including mature specimens.																	
ECOLOGICAL BASELINE																	
Green Infrastructure Context (see Figure 21.1)																	
The Site is located within the broader High Weald landscape of small to medium sized fields, including both grassland and arable, set within a relatively extensive and intact hedgerow network which includes frequent trees. Woodland, including Ancient Woodland, is relatively plentiful and includes both large and small parcels. The Site lies on the north western side of Heathfield and forms one of a number of residential properties, often with quite large gardens, along the western side of the A267. To the north and east are residential areas but to the south west is open country of comprising fields with hedges and woodland.																	
Desk Study: Designated Sites within 1km (see Figure 21.2)	Distance from Site																
<ul style="list-style-type: none"> <li>None</li> </ul>																	
Desk Study: BAP Priority Habitats within 1km	Distance from Site																
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**Notable Bird Inventory***Ardea cinerea**Corvus corax**Phylloscopus sibilatrix*

Grey heron

Raven

Wood warbler

**Invasive Alien Species Inventory***Allium triquetrum**Cotoneaster horizontalis**Crocsmia pottsii* x *aurea* = *C. x crocosmiiflora**Fallopia japonica**Gaultheria shallon**Harmonia axyridis**Impatiens glandulifera**Prunus laurocerasus**Rhododendron ponticum*

Three-cornered garlic

Wall cotoneaster

Montbretia

Japanese Knotweed

Shallon

Harlequin Ladybird

Indian balsam

Cherry laurel

Rhododendron

**Field Survey: Habitat Descriptions (see Figure 21/561)**

**Amenity grassland** – Much of the garden comprises a species poor sward comprising typical common and widespread species.

**Poor semi-improved grassland** – Species poor area with Yorkshire fog *Holcus lanatus*, common bent *Agrostis capillaris*, creeping buttercup *Ranunculus repens*, hogweed *Heracleum sphodyllum* and dandelion *Taraxacum officinale* agg. in the south west of the garden.

**Introduced shrub** – Beds and borders.

**Trees** – Scattered throughout but including a mature oak in the centre of the garden and a group of developing birch, willow and sycamore at the end of the garden.

**Hedges** – Species poor non-native conifer on the northern boundary. Part of the southern boundary supports a range of native and non-native shrubs and small trees.

**Pond** – Set within the lawn and has a paved edge and little in-pond vegetation. Stocked with goldfish/carp.

**Buildings** – House with pitched and tiled roof.

**Field Survey: Protected and Protected Species**

No species considered notable for their nature conservation value recorded during the Phase I habitat field survey.

**Field Survey: Invasive Non-native Species**

No invasive non-native species recorded within the Site.

**Assessment of Potential for Protected and Notable Species**

**Great crested newts** – In addition to the pond within the Site OS maps and aerial images indicate the presence of a pond approximately 200m south of the Site. However, the pond within the Site represents relatively poor breeding habitat for great crested newts and suitable terrestrial habitat within the Site is very limited, comprising largely of hedges and other boundary vegetation. In contrast, suitable terrestrial habitat is widespread near the pond to the south. This means the probability of great crested newts being present in the Site is considered to be low.

**Breeding birds** – in trees, hedges and shrubs.

**Bats** – Trees and mature trees in particular, with features such as cracks and cavities, have potential to be used as roosts. The house may also have some potential to be used as a roost. Activity, including foraging and commuting, is most likely around trees.

### Recommendations for Further Survey (and optimal survey timings)

**Bats** – (inspections: year round; activity surveys April – October) in the first instance inspection of trees and house to determine the scope for further survey.

### INDICATIVE ECOLOGICAL APPRAISAL

**Low value** – house and garden comprising a significant proportion of non-native and/or species-poor vegetation. The mature trees are probably the feature of greatest value, both in their own right but also as habitat for a range of species including, potentially, bats.  
The Site's habitats and features have low potential to support notable/protected species.

### Impact Avoidance

In order to limit, as far as possible, potentially adverse effects of development including potential harm to the integrity of the wider green infrastructure network, effort should be made to avoid the more ecologically valuable parts of the Site by:

- Retaining the mature trees and their features.
- Consider retaining the semi-improved neutral grassland.
- As far as possible and appropriate retaining and buffering habitats and features supporting notable/protected species, based on the results of more detailed surveys.

### Outline Mitigation

Should development at this Site proceed, generic (standard) mitigation for impacts upon habitats and species is set out below. Further detailed or species-specific mitigation may be required dependent upon the outcome of the recommended protected habitat or species surveys.

- Implementation of a Construction and Environmental Management Plan (CEMP) to manage site-specific issues relating to the potential impacts of construction on ecological features of interest.
- Timing of vegetation clearance works to avoid the bird breeding season (March – August inclusive).
- Offset buffers to protect retained habitats (minimum 10m).
- Use of protective fencing to define construction areas and protect retained habitats.
- Avoidance of night-time working wherever possible. When not possible, use directional lighting to prevent lightshed into surrounding habitats.
- Inclusion of mammal ladders or similar in any trenches left open overnight.
- Sealing of pipework overnight, to prevent animals becoming trapped.
- Defined and bunded areas for fuel storage and refuelling to prevent spillages and pollution incidents.
- On-Site spill incident equipment, in the event of spillages of fuel or other materials. Specific measures will be required if any works are close to watercourses and/or waterbodies.
- New development may need to incorporate bat roosts as alternative or replacement habitat if roosts are likely to be lost.
- Insofar as any proposed development of the Site allows, lighting design, particularly for the periphery of the Site should be minimised as far as possible. As a minimum, any lighting along Site boundaries that may potentially form important commuting corridors (e.g. hedgerows) or adjacent woodlands that may support bat roosts should make use of backboards and/or internal louvres to ensure light is directed into the Site and light spill into the adjacent areas of retained habitat is minimised.

### Potential Enhancement Opportunities

Opportunities for enhancing, restoring and/or creating new habitats as an integral part of a Site's development that can also contribute to the District's wider ecological /green infrastructure network are identified below:

- Positively and appropriately manage retained habitats and features, including mature trees
- Replace species poor non-native hedges on boundaries with hedges comprising appropriate native species.
- Habitat creation, ideally located adjacent to retained or adjoining habitat, for example at the south western end of the Site, or to form habitat corridors or links. To include for example:
  - Wildlife pond(s), included for example as part of a SuDS scheme;
  - Species-rich grassland and associated features for supporting a variety of terrestrial invertebrates;
  - Scrub and trees; and
  - Creation of dead wood habitats and other habitat piles.
- Erection of bat boxes suitable for a range of bat species, on retained trees or incorporated into buildings where they will remain unlit.
- Erection of bird boxes suitable for a range of bird species on retained trees or incorporated into buildings.
- Incorporate features to SuDS scheme(s), such as the use of native wetland plant species, to enhance their value.



ECOLOGICAL ASSESSMENT															
<b>Area:</b>	Heathfield														
<b>Site Name:</b>	Crossways House, New Pond Hill, Heathfield														
<b>Site Reference Number:</b>	566/1210														
Site Summary Description															
A 0.44ha Site comprising a moderately species rich grassland field with native and non-native trees and shrubs and species poor hedges.															
ECOLOGICAL BASELINE															
Green Infrastructure Context (see Figure 21.1)															
The Site is located within a characteristic High Weald landscape of small to medium sized fields, including both grass and arable, set within a relatively extensive and intact hedgerow network which includes frequent trees. Woodland, including Ancient Woodland, is relatively plentiful, the majority of which are relatively large in size. The Site is located on the western fringes of Heathfield where more intense urban development gives way to ribbon development along the A267. The Site is bordered to the west by a small road and to the north south and east by single residential properties with relatively large gardens and grounds. The gardens are delineated by hedgerows and mature trees, which connect with broad-leaved deciduous woodland to the south.															
Desk Study : Designated Sites within 1km (See Figure 21.2)	Distance from Site														
<ul style="list-style-type: none"> <li>None</li> </ul>															
Desk Study: BAP Priority Habitats within 1km	Distance from Site														
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<i>Somatochlora metallica</i>	Brilliant emerald														

**Notable Bird Inventory***Corvus corax*

Raven

*Phylloscopus sibilatrix*

Wood warbler

**Invasive Alien Species Inventory***Cotoneaster horizontalis*

Wall cotoneaster

*Crocsmia pottsii* x *aurea* = *C. x crocosmiiflora*

Montbretia

*Fallopia japonica*

Japanese Knotweed

*Gaultheria shallon*

Shallon

*Harmonia axyridis*

Harlequin Ladybird

*Impatiens glandulifera*

Indian balsam

*Prunus laurocerasus*

Cherry laurel

*Rhododendron ponticum*

Rhododendron

**Field Survey: Habitat Descriptions (See Figure 21/566)**

**Semi-improved neutral grassland** – Comprises a quite homogenous, mown sward. It is moderately species rich. Yorkshire fog *Holcus lanatus* and common bent *Agrostis capillaris* are the most abundant grasses, but cocksfoot *Dactylis glomerata* and red fescue *Festuca rubra* are occasional. Glaucus sedge *Carex flacca* is frequent and another unidentified sedge species is locally frequent. Soft rush *Juncus effuses* was occasional. Forb content is quite high, around 50% and includes frequent meadow buttercup *Ranunculus acris*, bird's foot trefoil *Lotus corniculatus*, white clover *Trifolium repens*, meadow vetchling *Lathyrus pratensis*, self-heal *Prunella vulgaris*, lesser stitchwort *Stellaria graminea*, tormentil *Potentilla erecta*, ribwort plantain *Plantago lanceolata*, common sorrel *Rumex acetosa*, fleabane *Pulicaria dysenterica*, cat's ear *Hypochaeris radicata* and common knapweed *Centaurea nigra*, as well as sneezewort *Achillea ptarmica* and ox eye daisy *Leucanthemum vulgare*.

**Trees and scrub** – Native and non-native species on and beside the boundaries, including mature oak as well as birch, sycamore, holly, willow and the non-native invasive cherry laurel and *Rhododendron*. There is also oak and some birches within the field.

**Hedges** – Species poor and comprising largely of holly with cherry laurel or cypress. The species poor hedge on the southern boundary of the field appears to be outside the Site boundary.

**Field Survey: Protected and Notable Species**

No species considered notable for their nature conservation value recorded during the Phase I habitat field survey.

**Field Survey: Invasive Non-native Species**

Rhododendron and cherry laurel - among hedges, trees and scrub on boundaries.

**Assessment of Potential for Notable Species**

**Great crested newts** – There are no ponds within the Site. However, OS maps and aerial images indicate the presence of a pond approximately 300m south of the Site. However, the distance to the pond, the relatively widespread availability of suitable terrestrial habitat for great crested newts nearby and its limited extent within the Site means the probability of their being present is considered very low.

**Breeding birds** – in trees, scrub and hedges.

**Bats** – Trees and mature trees in particular, with features such as cracks and cavities have potential to be used as roosts. Given the habitats and features present activity, including foraging and commuting, is likely throughout, but especially in and around woodland and trees, scrub and hedges.

**Dormice** – moderate potential in scrub and hedges due to species and structure and limited habitat connectivity.

**Badgers** – Potential for setts within hedges and scrub limited by the size and width of these areas, but with or without setts badgers may also use any part of the Site for foraging, though neither was recorded during the survey.

### Recommendations for Further Survey (including optimal timings)

**Botanical** – (May – June) – of the semi-improved neutral grassland.

**Bats** – (inspections: year round; activity surveys April – October) in the first instance inspection of trees to determine the scope for further survey.

**Dormice** – (April – November) in suitable habitat.

**Badgers** – (Year round but Spring / Autumn optimal) of whole site.

### INDICATIVE ECOLOGICAL APPRAISAL

**Moderate value** – includes moderately species rich grassland and mature trees and the habitats and features have some potential to support notable/protected species.

### Impact Avoidance

In order to limit, as far as possible, potentially adverse effects of development including potential harm to the integrity of the wider green infrastructure network, effort should be made to avoid the more ecologically valuable parts of the Site by:

- Retaining at least a proportion of the grassland.
- Retaining the mature trees and their features.

### Outline Mitigation

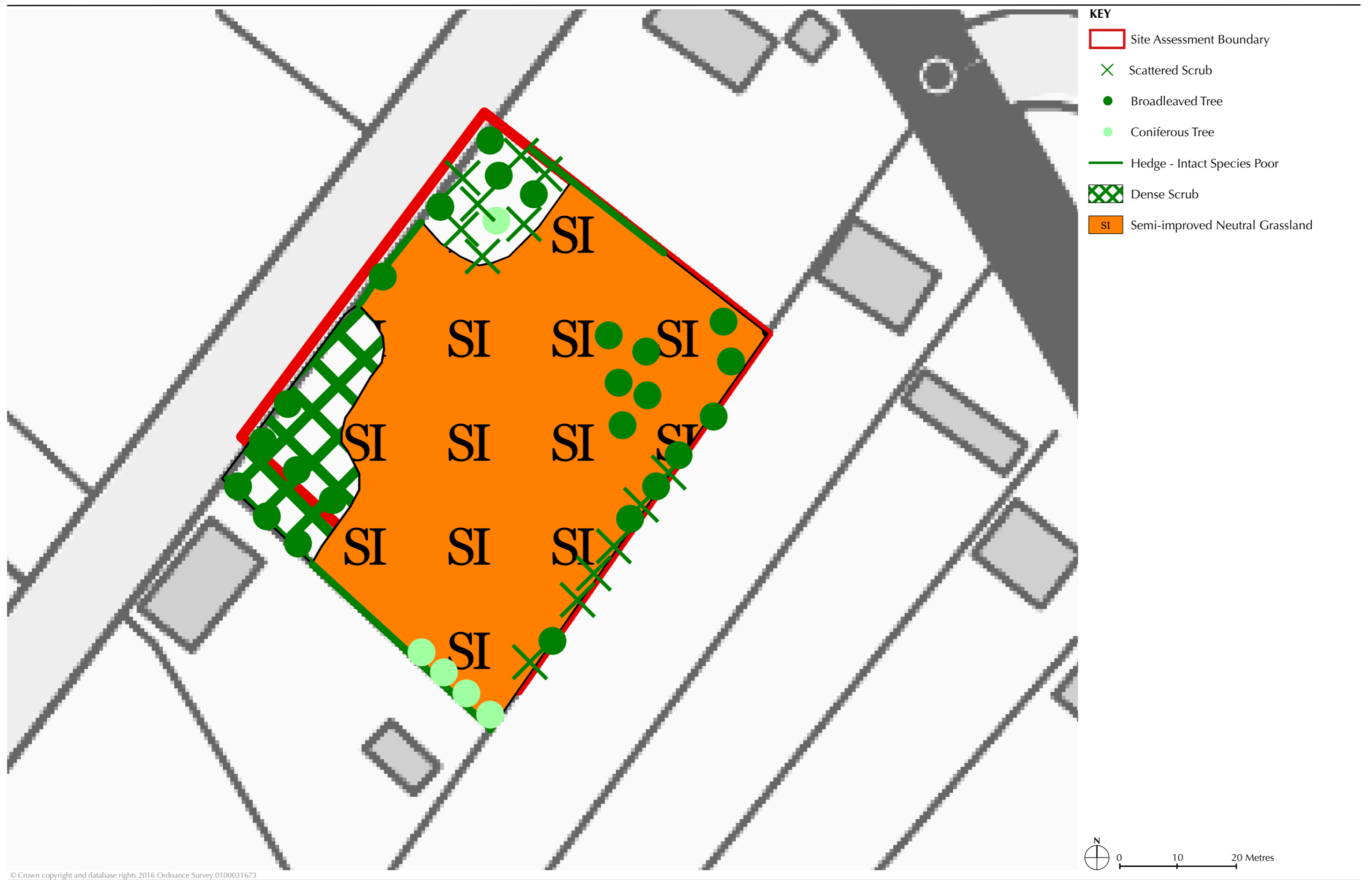
Should development at this Site proceed, generic (standard) mitigation for impacts upon habitats and species is set out below. Further detailed or species-specific mitigation may be required dependent upon the outcome of the recommended protected habitat or species surveys.

- Implementation of a Construction and environmental Management Plan (CEMP) to manage site-specific issues relating to the potential impacts of construction on ecological features of interest.
- Timing of vegetation clearance works to avoid the bird breeding season (March – August inclusive).
- Offset buffers to protect retained habitats (minimum 10m).
- Use of protective fencing to define construction areas and protect retained habitats.
- Avoidance of night-time working wherever possible. When not possible, use directional lighting to prevent lightshed into surrounding habitats.
- Inclusion of mammal ladders or similar in any trenches left open overnight.
- Sealing of pipework overnight, to prevent animals becoming trapped.
- Defined and bunded areas for fuel storage and refuelling to prevent spillages and pollution incidents.
- On-Site spill incident equipment, in the event of spillages of fuel or other materials. Specific measures will be required if any works are close to watercourses and/or waterbodies.
- New development may need to incorporate bat roosts as alternative or replacement habitat if roosts are likely to be lost.
- Insofar as any proposed development of the Site allows, lighting design, particularly for the periphery of the Site should be minimised as far as possible. As a minimum, any lighting along Site boundaries that may potentially form important commuting corridors (e.g. hedgerows) or adjacent woodlands that may support bat roosts should make use of backboards and/or internal louvres to ensure light is directed into the Site and light spill into the adjacent areas of retained habitat is minimised.
- If dormice are found to be present the retention and appropriate buffering of hedges and scrub (as noted above).
- Development should avoid construction works within at least 30m of the nearest badger setts and seek to avoid prime foraging grounds identified through the badger survey and severance of commuting corridors within territories.

### Potential Enhancement Opportunities

Opportunities for enhancing, restoring and/or creating new habitats as an integral part of a Site's development that can also contribute to the District's wider ecological /green infrastructure network are identified below:

- Positively and appropriately manage retained habitats and features, including hedges, mature trees and grassland.
- Strengthen boundary vegetation, for example on the northern, southern and eastern boundaries, by removal of non-native species and planting of appropriate native species.
- Habitat creation, ideally located adjacent to retained or adjoining habitat, for example in a corner of the Site, or to form habitat corridors or links. To include for example:
  - Wildlife pond(s), included for example as part of a SuDS scheme;
  - Species-rich grassland and associated features for supporting a variety of terrestrial invertebrates;
  - Scrub and trees; and
  - Creation of dead wood habitats and other habitat piles.
- Erection of bat boxes suitable for a range of bat species, on retained trees or incorporated into buildings where they will remain unlit.
- Erection of bird boxes suitable for a range of bird species on retained trees or incorporated into buildings.



ECOLOGICAL ASSESSMENT															
<b>Area:</b>	Heathfield														
<b>Site Name:</b>	Fincham, New Pond Hill, Heathfield														
<b>Site Reference Number:</b>	567/1210														
Site Summary Description															
A 0.29ha Site comprising a modern house and garden with mature trees, beds and borders and amenity grassland.															
ECOLOGICAL BASELINE															
Green Infrastructure Context (see Figure 21.1)															
<p>The Site is located within a characteristic High Weald landscape of small to medium sized fields, including both grass and arable, set within a relatively extensive and intact hedgerow network which includes frequent trees. Woodland, including Ancient Woodland, is relatively plentiful, the majority of which are relatively large in size. The Site is located on the western fringes of Heathfield where more intense urban development gives way to ribbon development along the A267. The Site is bordered on two sides by single residential properties with relatively large gardens and grounds. The gardens are delineated by hedgerows and mature tree The Site directly borders the A267, beyond which rows of smaller houses and gardens form the western extent of Heathfield's built extent.</p>															
Desk Study : Designated Sites within 1km (See Figure 21.2)	Distance from Site														
<ul style="list-style-type: none"> <li>None</li> </ul>															
Desk Study: BAP Priority Habitats within 1km	Distance from Site														
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<i>Myotis nattereri</i>	Natterer's bat														
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<i>Erythromma viridulum</i>	Small red-eyed damselfly														

<i>Somatochlora metallica</i>	Brilliant emerald
<b>Notable Bird Inventory</b>	
<i>Corvus corax</i>	Raven
<i>Phylloscopus sibilatrix</i>	Wood warbler
<b>Invasive Alien Species Inventory</b>	
<i>Allium triquetrum</i>	Three-cornered garlic
<i>Cotoneaster horizontalis</i>	Wall cotoneaster
<i>Crocodymia pottsii</i> x <i>aurea</i> = <i>C. x crocosmiiflora</i>	Montbretia
<i>Fallopia japonica</i>	Japanese Knotweed
<i>Gaultheria shallon</i>	Shallon
<i>Harmonia axyridis</i>	Harlequin Ladybird
<i>Impatiens glandulifera</i>	Indian balsam
<i>Prunus laurocerasus</i>	Cherry laurel
<i>Rhododendron ponticum</i>	Rhododendron
<b>Field Survey: Habitat Descriptions (See Figure 21/567)</b>	
<p><b>Amenity grassland</b> – Species poor and comprising a limited number of typical common and widespread species, such as white clover <i>Trifolium repens</i> and self-heal <i>Prunella vulgaris</i>.</p> <p><b>Trees and scrub</b> – Includes mature oaks as well as birch, beech, sycamore and holly, especially along the northern boundary. Also non-native such as conifers.</p> <p><b>Introduced shrub</b> – Beds and borders but also stands of cherry laurel and other non-natives among trees.</p> <p><b>Hedges</b> – Species poor non-native cherry laurel on the southern and western boundaries.</p> <p><b>Buildings</b> – Modern house with pitched and tiled roof as well as flat roofed garage.</p>	
<b>Field Survey: Protected and Notable Species</b>	
No species considered notable for their nature conservation value recorded during the Phase I habitat field survey.	
<b>Field Survey: Invasive Non-native Species</b>	
Cherry laurel – on boundaries and among garden	
<b>Assessment of Potential for Protected and Notable Species</b>	
<p><b>Great crested newts</b> – There are no ponds within the Site. OS maps indicate the presence of a pond more than 400m to the south of the Site. The distance of the pond from the Site, combined with the presence of New Pond Hill road (which would be a barrier to dispersal), as well as the widespread availability of suitable terrestrial habitat for great crested newts close to it (and the very limited extent of suitable habitat within the Site), makes the probability of their presence on the Site very low.</p> <p><b>Breeding birds</b> – in trees, shrubs and hedges.</p> <p><b>Bats</b> – Trees and mature trees in particular, with features such as cracks and cavities have potential to be used as roosts. Given the habitats and features present activity, including foraging and commuting, is likely throughout, but especially in and around woodland and trees, scrub and hedges. The house appears to have low potential, but should be inspected in more detail to determine its potential.</p>	
<b>Recommendations for Further Survey (including optimal timings)</b>	
<b>Bats</b> – (inspections: year round; activity surveys April – October) in the first instance inspection of trees and house to determine the scope for further survey.	

## INDICATIVE ECOLOGICAL APPRAISAL

**Low value** – house and garden comprising a significant proportion of non-native and/or species-poor vegetation with very limited potential to support notable/protected species. The mature trees are probably the feature of greatest value.

### Impact Avoidance

In order to limit, as far as possible, potentially adverse effects of development including potential harm to the integrity of the wider green infrastructure network, effort should be made to avoid the more ecologically valuable parts of the Site by:

- Retaining the mature trees and their features.
- As far as possible and appropriate retaining and buffering habitats and features supporting notable/protected species, based on the results of more detailed surveys.

### Outline Mitigation

Should development at this Site proceed, generic (standard) mitigation for impacts upon habitats and species is set out below. Further detailed or species-specific mitigation may be required dependent upon the outcome of the recommended protected habitat or species surveys.

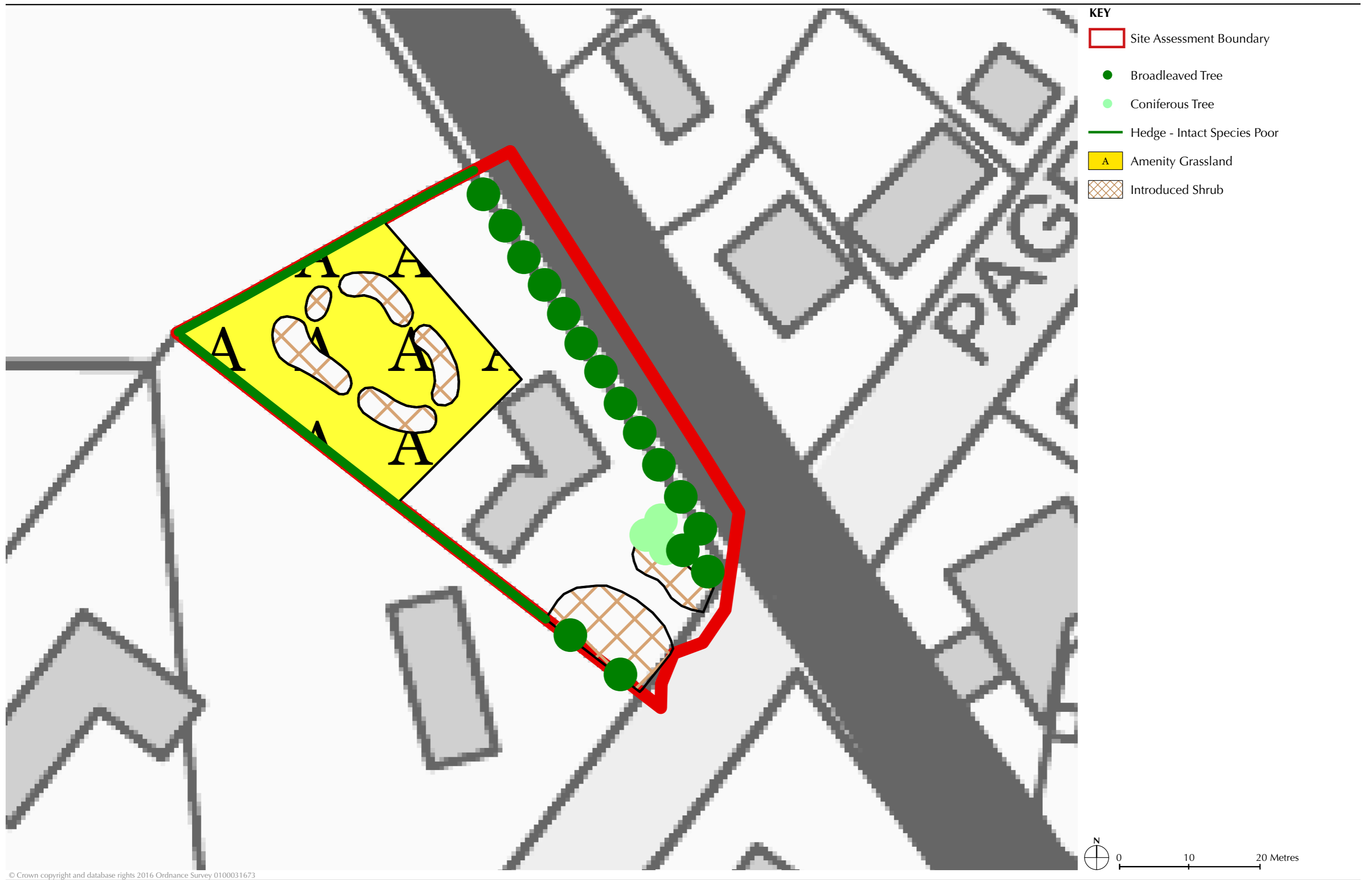
- Implementation of a Construction and environmental Management Plan (CEMP) to manage site-specific issues relating to the potential impacts of construction on ecological features of interest.
- Timing of vegetation clearance works to avoid the bird breeding season (March – August inclusive).
- Offset buffers to protect retained habitats (minimum 10m).
- Use of protective fencing to define construction areas and protect retained habitats.
- Avoidance of night-time working wherever possible. When not possible, use directional lighting to prevent lightshed into surrounding habitats.
- Inclusion of mammal ladders or similar in any trenches left open overnight.
- Sealing of pipework overnight, to prevent animals becoming trapped.
- Defined and bunded areas for fuel storage and refuelling to prevent spillages and pollution incidents.
- On-Site spill incident equipment, in the event of spillages of fuel or other materials. Specific measures will be required if any works are close to watercourses and/or waterbodies.
- New development may need to incorporate bat roosts as alternative or replacement habitat if roosts are likely to be lost.
- Insofar as any proposed development of the Site allows, lighting design, particularly for the periphery of the Site should be minimised as far as possible. As a minimum, any lighting along Site boundaries that may potentially form important commuting corridors (e.g. hedgerows) or adjacent woodlands that may support bat roosts should make use of backboards and/or internal louvres to ensure light is directed into the Site and light spill into the adjacent areas of retained habitat is minimised.

### Potential Enhancement Opportunities

Opportunities for enhancing, restoring and/or creating new habitats as an integral part of a Site's development that can also contribute to the District's wider ecological /green infrastructure network are identified below:

- Positively and appropriately manage retained habitats and features, including mature trees.
- Strengthen boundary vegetation by removal of non-native species and planting of appropriate native species.
- Habitat creation, ideally located adjacent to retained or adjoining habitat, particularly along the Site's northern and western boundaries. To include for example:
  - Wildlife pond(s), included for example as part of a SuDS scheme;
  - Species-rich grassland and associated features for supporting a variety of terrestrial invertebrates;
  - Scrub and trees; and
  - Creation of dead wood habitats and other habitat piles.

- Erection of bat boxes suitable for a range of bat species, on retained trees or incorporated into buildings where they will remain unlit.
- Erection of bird boxes suitable for a range of bird species on retained trees or incorporated into buildings.



ECOLOGICAL ASSESSMENT																	
<b>Settlement/Area:</b>	Heathfield																
<b>Site Address:</b>	Pine Ridge, Little London Road, Heathfield																
<b>Site Reference Number:</b>	568/1210																
Site Summary Description																	
A small 0.43ha Site comprising a house and garden with mature trees, including a small wooded area, hedges, beds and borders and amenity grassland.																	
ECOLOGICAL BASELINE																	
Green Infrastructure Context (see Figure 21.1)																	
The Site is located within the broader High Weald landscape of small to medium sized fields, including both grassland and arable, set within a relatively extensive and intact hedgerow network which includes frequent trees. Woodland, including Ancient Woodland, is relatively plentiful and includes both large and small parcels. The Site lies on the north western side of Heathfield and forms one of a number of residential properties, often with quite large gardens, along the western side of the A267 Little London Road. To the north and east are residential areas but to the south west is open countryside comprising of fields with hedges and woodland.																	
Desk Study: Designated Sites within 1km (see Figure 21.2)	Distance from Site																
<ul style="list-style-type: none"> <li>None</li> </ul>																	
Desk Study: BAP Priority Habitats within 1km	Distance from Site																
<ul style="list-style-type: none"> <li>Ancient &amp; semi-natural woodland – Heatherden Wood</li> <li>Ancient &amp; semi-natural woodland – Coalend / Buttons / Dunly Woods</li> <li>Ancient &amp; semi-natural woodland – Heatherden Shaw</li> <li>Ancient &amp; semi-natural woodland – Back Lane Shaw</li> <li>Ancient &amp; semi-natural woodland – Holman’s Wood ext.</li> <li>Ancient &amp; semi-natural woodland – Runtington / Crock-kiln / Geer’s Woods</li> <li>Ancient &amp; semi-natural woodland – Markly Wood</li> <li>Ancient &amp; semi-natural woodland – Markly Wood ext.</li> <li>Lowland heath BAP priority habitat (4 areas, un-named)</li> </ul>	<ul style="list-style-type: none"> <li>250m North West</li> <li>815m North West</li> <li>900m WSW</li> <li>990m South West</li> <li>550m South</li> <li>820m South East</li> <li>220m North</li> <li>800m North East</li> <li>700-900m North</li> </ul>																
Desk Study: Protected and Notable Species within 1km																	
<p><b>Protected Species</b></p> <table> <tr> <td><i>Myotis nattereri</i></td><td>Natterer’s bat</td></tr> <tr> <td><i>Pipistrellus pipistrellus</i></td><td>Common Pipistrelle (45 kHz) bat</td></tr> <tr> <td><i>Pipistrellus pygmaeus</i></td><td>Soprano pipistrelle (55kHz) bat</td></tr> <tr> <td><i>Plecotus auritus</i></td><td>Brown Long-eared bat</td></tr> </table> <p><b>Sussex BAP Species</b></p> <table> <tr> <td><i>Bufo bufo</i></td><td>Common toad</td></tr> <tr> <td><i>Erinaceus europaeus</i></td><td>European hedgehog</td></tr> </table> <p><b>Sussex Rare Species Inventory</b></p> <table> <tr> <td><i>Erythromma viridulum</i></td><td>Small red-eyed damselfly</td></tr> <tr> <td><i>Somatochlora metallica</i></td><td>Brilliant emerald</td></tr> </table>		<i>Myotis nattereri</i>	Natterer’s bat	<i>Pipistrellus pipistrellus</i>	Common Pipistrelle (45 kHz) bat	<i>Pipistrellus pygmaeus</i>	Soprano pipistrelle (55kHz) bat	<i>Plecotus auritus</i>	Brown Long-eared bat	<i>Bufo bufo</i>	Common toad	<i>Erinaceus europaeus</i>	European hedgehog	<i>Erythromma viridulum</i>	Small red-eyed damselfly	<i>Somatochlora metallica</i>	Brilliant emerald
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<b>Notable Bird Inventory</b>	
<i>Corvus corax</i>	Raven
<i>Phylloscopus sibilatrix</i>	Wood warbler
<b>Invasive Alien Species Inventory</b>	
<i>Allium triquetrum</i>	Three-cornered garlic
<i>Cotoneaster horizontalis</i>	Wall cotoneaster
<i>Crocsmia pottsii</i> x <i>aurea</i> = <i>C. x crocosmiiflora</i>	Montbretia
<i>Fallopia japonica</i>	Japanese Knotweed
<i>Gaultheria shallon</i>	Shallon
<i>Harmonia axyridis</i>	Harlequin Ladybird
<i>Impatiens glandulifera</i>	Indian balsam
<i>Prunus laurocerasus</i>	Cherry laurel
<i>Rhododendron ponticum</i>	Rhododendron
<b>Field Survey: Habitat Descriptions (see Figure 21/568)</b>	
<p><b>Amenity grassland</b> – Although not species rich this does contain a number of species typical of less improved grasslands in the area, such as field woodrush <i>Luzula campestris</i>, creeping buttercup <i>Ranunculus repens</i>, red and white clover <i>Trifolium pratense</i> and <i>repens</i>, a birds foot trefoil <i>Lotus</i> sp., self-heal <i>Prunella vulgaris</i>, heath speedwell <i>Veronica officinalis</i>, yarrow <i>Achillea millefolium</i>, mouse-ear hawkweed <i>Pilosella officinarum</i>, common knapweed <i>Centaurea nigra</i>, ox eye daisy <i>Leucanthemum vulgare</i> and cats ear <i>Hypochaeris radicata</i>.</p> <p><b>Trees and scrub</b> – Includes a small ‘wooded area’ along the southern boundary and comprises a mix of native and non-native trees such as oak, holm oak, lime, horse chestnut, beech, birch, cypress, pine, eucalyptus, of which some are mature. These are generally underplanted with non-native shrubs including cherry laurel and Rhododendron. The field layer of the wooded area in the south of the Site is generally species poor with much bare ground among heavy shade or locally abundant ivy, but it does include very small amounts of several Ancient Woodland Indicator Species, Wood melick <i>Melica uniflora</i>, primrose <i>Primula vulgaris</i> and stinking iris <i>Iris foetidissima</i>.</p> <p><b>Introduced shrub</b> – Beds and borders but also stands of cherry laurel and other non-natives among trees.</p> <p><b>Hedges</b> – Mostly species poor non-native cherry laurel or cypress. There is a section of more species rich hedge on part of the north western boundary.</p> <p><b>Buildings</b> – House and outbuilding, both with pitched and tiled roofs.</p>	
<b>Field Survey: Protected and Notable Species</b>	
No species considered notable for their nature conservation value recorded during the Phase I habitat field survey.	
<b>Field Survey: Invasive Non-native Species</b>	
Rhododendron and cherry laurel – widespread in garden.	
<b>Assessment of Potential for Protected and Notable Species</b>	
<p><b>Great crested newts</b> – There are no ponds within the Site. OS maps indicate the presence of a pond more than 400m to the south of the Site. The distance of the pond from the Site, combined with the presence of New Pond Hill road (which would be a barrier to dispersal), as well as the widespread availability of suitable terrestrial habitat for great crested newts close to it (and the very limited extent of suitable habitat within the Site), makes the probability of their presence on the Site very low.</p> <p><b>Breeding birds</b> – in trees, shrubs and hedges.</p> <p><b>Bats</b> – Trees and mature trees in particular, with features such as cracks and cavities, have potential to be used as roosts. The house may also have some potential to be used as a roost. Activity, including foraging and commuting, is most likely around trees.</p>	

### Recommendations for Further Survey (and optimal survey timings)

**Bats** – (inspections: year round; activity surveys April – October) in the first instance inspection of trees and house to determine the scope for further survey.

### INDICATIVE ECOLOGICAL APPRAISAL

**Low value** – house and garden comprising a significant proportion of non-native and/or species-poor vegetation. The mature trees are probably the feature of greatest value both their own value and also potentially as habitat for bats.

The Sites habitats and features have low potential to support notable/protected species.

### Impact Avoidance

In order to limit, as far as possible, potentially adverse effects of development including potential harm to the integrity of the wider green infrastructure network, effort should be made to avoid the more ecologically valuable parts of the Site by:

- Retaining the mature trees and their features.
- As far as possible and appropriate retaining and buffering habitats and features supporting notable/protected species, based on the results of more detailed surveys.

### Outline Mitigation

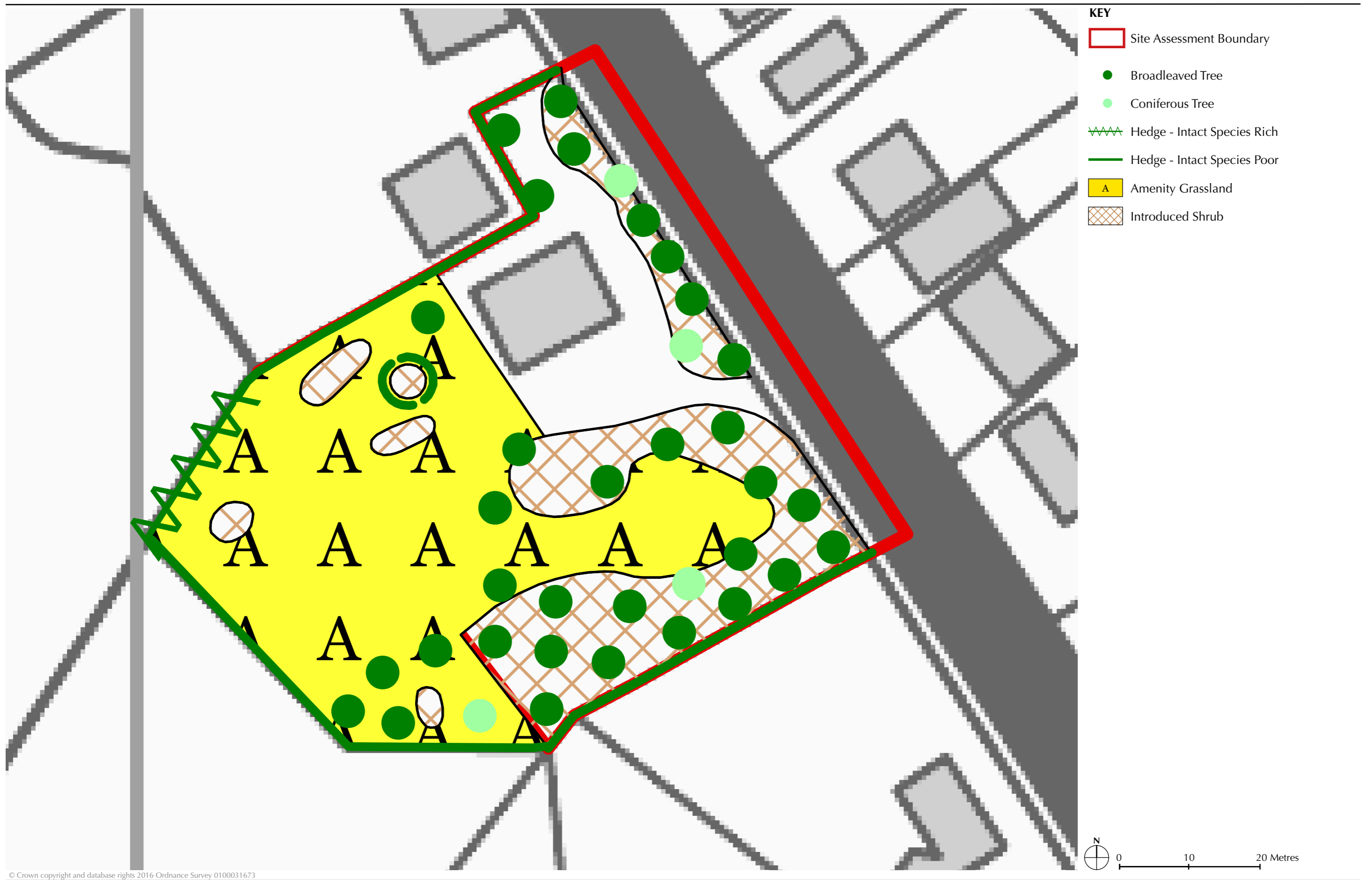
Should development at this Site proceed, generic (standard) mitigation for impacts upon habitats and species is set out below. Further detailed or species-specific mitigation may be required dependent upon the outcome of the recommended protected habitat or species surveys.

- Implementation of a Construction and Environmental Management Plan (CEMP) to manage site-specific issues relating to the potential impacts of construction on ecological features of interest.
- Timing of vegetation clearance works to avoid the bird breeding season (March – August inclusive).
- Offset buffers to protect retained habitats (minimum 10m).
- Use of protective fencing to define construction areas and protect retained habitats.
- Avoidance of night-time working wherever possible. When not possible, use directional lighting to prevent lightshed into surrounding habitats.
- Inclusion of mammal ladders or similar in any trenches left open overnight.
- Sealing of pipework overnight, to prevent animals becoming trapped.
- Defined and bunded areas for fuel storage and refuelling to prevent spillages and pollution incidents.
- On-Site spill incident equipment, in the event of spillages of fuel or other materials. Specific measures will be required if any works are close to watercourses and/or waterbodies.
- New development may need to incorporate bat roosts as alternative or replacement habitat if roosts are likely to be lost.
- Insofar as any proposed development of the Site allows, lighting design, particularly for the periphery of the Site should be minimised as far as possible. As a minimum, any lighting along Site boundaries that may potentially form important commuting corridors (e.g. hedgerows) or adjacent woodlands that may support bat roosts should make use of backboards and/or internal louvres to ensure light is directed into the Site and light spill into the adjacent areas of retained habitat is minimised.

### Potential Enhancement Opportunities

Opportunities for enhancing, restoring and/or creating new habitats as an integral part of a Site's development that can also contribute to the District's wider ecological /green infrastructure network are identified below:

- Positively and appropriately manage retained habitats and features, including mature trees
- Remove invasive non-native Rhododendron and cherry laurel, for example from the wooded area, and replace with appropriate native shrub species.
- Replace species poor non-native hedges on boundaries with hedges comprising appropriate native species.
- Habitat creation, ideally located adjacent to retained or adjoining habitat, for example a corner of the Site next to the wooded area in the south, or to form habitat corridors or links. To include for example:
  - Wildlife pond(s), included for example as part of a SuDS scheme;
  - Species-rich grassland and associated features for supporting a variety of terrestrial invertebrates;
  - Scrub and trees; and
  - Creation of dead wood habitats and other habitat piles.
- Erection of bat boxes suitable for a range of bat species, on retained trees or incorporated into buildings where they will remain unlit.
- Erection of bird boxes suitable for a range of bird species on retained trees or incorporated into buildings.
- Incorporate features to SuDS scheme(s), such as the use of native wetland plant species, to enhance their value.



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ECOLOGICAL ASSESSMENT	
Settlement/Area:	Heathfield
Site Address:	Land at Leonard's Field, Sandy Cross, Heathfield
Site Reference Number:	569/1210
Site Summary Description	
A 0.57ha species poor grassland field with a stand of bracken and patchy tall ruderal enclosed within species rich hedges, sections of which include mature trees.	
Green Infrastructure Context (see Figure 21.1)	
ECOLOGICAL BASELINE	
<p>The Site is located within a characteristic High Weald landscape of small to medium sized fields, including both grass and arable, set within a relatively extensive and intact hedgerow network which includes frequent trees. Woodland, including Ancient Woodland, is relatively plentiful, the majority of which are relatively large in size. The Site lies on the southern edge of Heathfield. To the north are residential areas of Heathfield and to the south and east is open country of fields with hedges and woodland.</p>	
Desk Study: Designated Sites within 1km (See Figure 21.2)	Distance from Site
<ul style="list-style-type: none"> <li>The Site lies approximately 950m west of the nearest point of <b>Heathfield Park SSSI</b>. The Citation states: <i>"This Site is an example of an ancient Wealden Gill woodland formed by the vigorous downcutting of a stream into the Ashdown Sand series of the Hastings Beds. A number of 'Atlantic' plants, uncommon in the south-east, are present and the lichen flora is also notable ... The woodland is dominated by mature beech Fagus sylvatica with both pedunculate and sessile oak Quercus robur and Q. petraea, holly Ilex aquifolium and scattered yew Taxus baccata. In the north and east birch Betula spp. becomes frequent and the stream valleys contain willow Salix spp. and alder Alnus glutinosa ... Continuous woodland cover in this sheltered Gill provides a moist, mild microclimate and a number of plant species occur here which are otherwise restricted to western counties, including Cornish moneywort Sibthorpia europaea, hay-scented buckler-fern Dryopteris aemula and the liverwort Frullania tamarisci. The Site is also of county importance for lichens: a total of 76 species have been recorded here ... The lakes add to the value of the Site for dragonflies and birds."</i></li> <li>The Site lies approximately 700m north of the nearest point of <b>Sapperton Meadows SSSI</b>. The Citation states: <i>"The Site consists of a number of pastures and meadows separated by a well developed network of hedgerows, and bordered on the south-west by mixed woodland. The fields form what is one of the best examples of contrasting rich pastures and hay meadows in East Sussex which is still being managed by traditional techniques ... The fields ... vary widely in grazing pressure [which] result in a mosaic of plant communities. Overall the flora is extremely species-rich and diverse, particularly in broad-leaved species. Characteristic species present include dyer's greenweed Genista tinctoria, lesser spearwort Ranunculus flammula, fleabane Pulicaria dysenterica, and a variety of sedges. In general the grassland is dominated by common bent grass Agrostis capillaris, along with Yorkshire fog Holcus lanatus, bird's foot trefoil Lotus corniculatus, daisy Bellis perennis, self-heal Prunella vulgaris, red clover Trifolium pratense, and</i></li> </ul>	<ul style="list-style-type: none"> <li>950m East of the Site.</li> <li>700m South of the Site.</li> </ul>

<p><i>ribwort plantain Plantago lanceolata. The grazed fields are characterised by lesser knapweed Centaurea nigra, bird's foot trefoil, hairy hawkbit Leontodon taraxacoides, yellow rattle Rhinanthus minor, dyer's greenweed, fleabane, sharp-flowered rush Juncus acutifolius, common spotted orchid Dactylorhiza fuchsii and cat's ear Hypochaeris radicata ... Characteristic plants of the hay fields include Yorkshire fog, lesser knapweed and yellow-rattle, with common bent grass, sweet vernal grass Anthoxanthum odoratum, sneezewort Achillea ptarmica, and hairy hawkbit. Carnation sedge Carex panicea, glaucous sedge C.flacca, oval sedge Carex ovalis and lesser spearwort occur in flushed patches."</i></p>																																																													
Desk Study: BAP Priority Habitats within 1km	Distance from Site																																																												
<ul style="list-style-type: none"> <li>• Ancient &amp; semi-natural woodland – Runtington / Crock-kiln / Geer's Woods</li> <li>• Ancient &amp; semi-natural woodland – Sapperton Wood</li> <li>• Ancient &amp; semi-natural woodland – Ham Wood</li> <li>• Ancient &amp; semi-natural woodland – Barrets Park Wood</li> <li>• Ancient &amp; semi-natural woodland – Heathfield park</li> <li>• Ancient &amp; semi-natural woodland –Monkhurst Farm Shaw</li> <li>• Lowland Meadows BAP priority habitat (part of Sapperton Meadows SSSI)</li> </ul>	<ul style="list-style-type: none"> <li>• 400m West</li> <li>• 410m South</li> <li>• 275m East</li> <li>• 500m South East</li> <li>• 750m East</li> <li>• 375m East</li> <li>• 690m South East</li> </ul>																																																												
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<i>Melanchra persicariae</i> <i>Mesoligia literosa</i> <i>Spilosoma lubricipeda</i> <i>Spilosoma luteum</i> <i>Tholera decimalis</i> <i>Timandra comae</i> <i>Tyria jacobaeae</i> <i>Watsonalla binaria</i> <i>Xanthia icteritia</i>	Dot moth (moth) Rosy Minor (moth) White Ermine (moth) Buff Ermine (moth) Feathered Gothic (moth) Blood-Vein (moth) Cinnabar (moth) Oak Hook-tip (moth) Sallow (moth)
<b>Sussex Rare Species Inventory</b> <i>Brachytecium mildeanum</i> <i>Buxus sempervirens</i> <i>Calamotropha paludella</i> <i>Chloroclysta siterata</i> <i>Eilema sororcula</i> <i>Furcula bicuspis</i> <i>Globia sparganii</i> <i>Hadena compta</i> <i>Mythimna l-album</i> <i>Parascotia fuliginaria</i> <i>Selenia lunularia</i> <i>Tetheella fluctuosa</i> <i>Thera cupressata</i>	Sand Feather-moss Box Bulrush veneer (moth) Red-green Carpet (moth) Orange Footman (moth) Alder Kitten (moth) Webb's Wainscot (moth) Varied Coronet (moth) L-album Wainscot (moth) Waved Black (moth) Lunar Thorn (moth) Satin Lutestring (moth) Cypress carpet (moth)
<b>Notable Bird Inventory</b> <i>Apus apus</i> <i>Ardea cinerea</i> <i>Delichon urbicum</i> <i>Hirundo rustica</i> <i>Milvus milvus</i> <i>Poecile Montana</i> <i>Tyto alba</i>	Swift Grey heron House martin Swallow Red kite Willow tit Barn owl
<b>Invasive Alien Species Inventory</b> <i>Crocasmia pottsii</i> x <i>aurea</i> = <i>C. x crocosmiiflora</i> <i>Fallopia japonica</i> <i>Impatiens glandulifera</i> <i>Prunus laurocerasus</i> <i>Rhododendron ponticum</i>	Montbretia Japanese Knotweed Indian balsam Cherry laurel Rhododendron
<b>Field Survey: Habitat Descriptions (See Figure 21/569)</b>	
<p><b>Poor semi-improved grassland</b> – A tall (to 50cm) and tussocky unmanaged sward that is species poor, with frequent/abundant Yorkshire fog <i>Holcus lanatus</i>, common bent <i>Agrostis capillaris</i>, but false oat grass <i>Arrhenatherum elatius</i> and cocksfoot <i>Dactylis glomerata</i>. Forb content is low to very low but includes creeping buttercup <i>Ranunculus repens</i>, common sorrel <i>Rumex acetosa</i>, hogweed <i>Heracleum sphondylium</i> and ribwort plantain <i>Plantago lanceolata</i>. The ruderal component, including broadleaved dock <i>Rumex obtusifolius</i>, nettle and creeping thistle <i>Cirsium arvense</i> is prominent.</p> <p><b>Bracken</b> – A large stand across the eastern part of the Field.</p> <p><b>Scrub</b> – Some scattered on field edges.</p> <p><b>Hedges</b> – Mostly species rich with hazel, hornbeam, holly and rowan but also mature oak trees. There is a discontinuous species poor hedge dominated by hawthorn on the boundary with an adjoining residential property on part of the northern boundary.</p>	

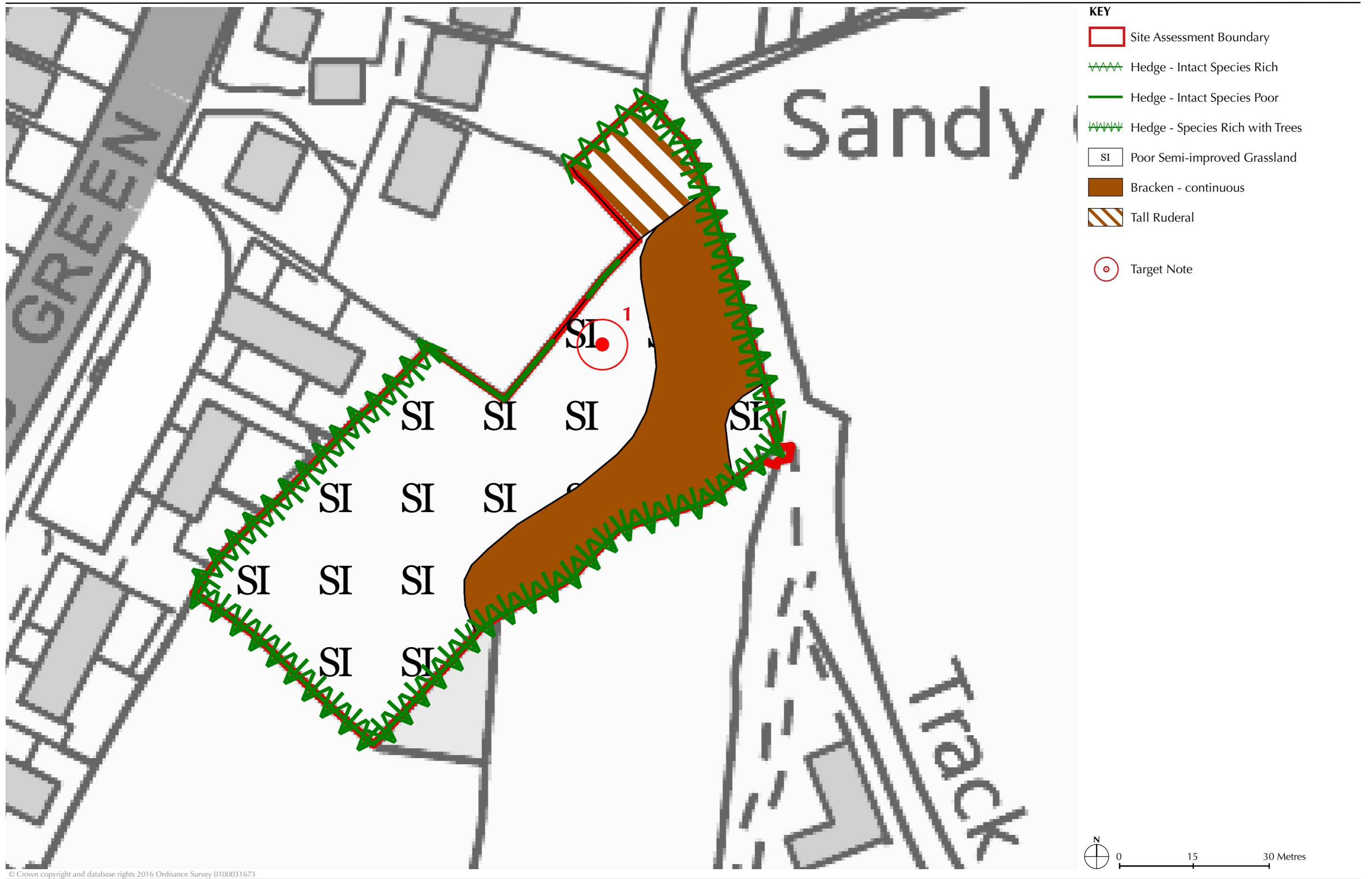
<b>Field Survey: Protected and Notable Species</b>
Badger – a single active hole with hairs and spoil among the grassland at <b>TN1</b> . Probable outlier sett.
<b>Field Survey: Invasive Non-native Species</b>
No invasive non-native species recorded within the Site.
<b>Assessment of Potential for Protected and Notable Species</b>
<p><b>Great crested newts</b> – There are no ponds within the Site. However, OS maps indicate the presence of ponds approximately 280m to the south and 170-200m to the east of the Site. Most of the Site, including hedges and coarse grassland, represents suitable terrestrial habitat for great crested newts.</p> <p><b>Reptiles</b> – Potential throughout site.</p> <p><b>Breeding birds</b> – In hedges and trees.</p> <p><b>Bats</b> – Trees and mature trees in particular, with features such as cracks and cavities, have potential to be used as roosts. Activity, including foraging and commuting, is likely throughout, but especially along hedges.</p> <p><b>Dormice</b> – Moderate potential in hedges.</p> <p><b>Badgers</b> – Sett recorded within Site. Further potential for setts within hedges, but badgers may also use any part of the Site for foraging.</p>
<b>Recommendations for Further Survey</b>
<p><b>Amphibian (including great crested newt)</b> – (March – June) of the ponds to the south and east of the Site.</p> <p><b>Reptiles</b> – (May – June, September – October) in suitable habitat throughout the Site.</p> <p><b>Bats</b> – (inspections: year round; activity surveys April – October) in the first instance inspection of trees to determine the scope for further survey.</p> <p><b>Dormice</b> – (April – November) in suitable habitat.</p> <p><b>Badgers</b> – (Year round but Spring / Autumn optimal) of whole site.</p>
<b>INDICATIVE ECOLOGICAL APPRAISAL</b>
<p><b>Low to Moderate value</b> – species poor grassland of relatively low value but the hedges and mature trees are of moderate value.</p> <p>The Sites habitats and features have moderate potential to support notable/protected species.</p>
<b>Impact Avoidance</b>
<p>In order to limit, as far as possible, potentially adverse effects of development including potential harm to the integrity of the wider green infrastructure network, effort should be made to avoid the more ecologically valuable parts of the Site by:</p> <ul style="list-style-type: none"> <li>• Retaining the mature trees and their features.</li> <li>• As far as possible and appropriate retaining and buffering habitats and features supporting notable/protected species, based on the results of more detailed surveys.</li> </ul>
<b>Outline Mitigation</b>
<p>Should development at this Site proceed, generic (standard) mitigation for impacts upon habitats and species is set out below. Further detailed or species-specific mitigation may be required dependent upon the outcome of the recommended protected habitat or species surveys.</p> <ul style="list-style-type: none"> <li>• Implementation of a Construction and Environmental Management Plan (CEMP) to manage site-specific issues relating to the potential impacts of construction on ecological features of interest.</li> <li>• Timing of vegetation clearance works to avoid the bird breeding season (March – August inclusive).</li> <li>• Offset buffers to protect retained habitats (minimum 10m).</li> </ul>

- Use of protective fencing to define construction areas and protect retained habitats.
- Avoidance of night-time working wherever possible. When not possible, use directional lighting to prevent lightshed into surrounding habitats.
- Inclusion of mammal ladders or similar in any trenches left open overnight.
- Sealing of pipework overnight, to prevent animals becoming trapped.
- Defined and bunded areas for fuel storage and refuelling to prevent spillages and pollution incidents.
- On-Site spill incident equipment, in the event of spillages of fuel or other materials. Specific measures will be required if any works are close to watercourses and/or waterbodies.
- If great crested newts are found to be present in the ponds to the south or east of the Site then measures should be put in place to prevent harming or killing them, including for example the erection of herptile fencing to exclude them from work areas, and possibly trapping and translocation to suitable receptor areas elsewhere.
- If reptiles are found to be present, measures to prevent harm to them, including potentially translocation from the development Site to a suitable receptor site. Where feasible such receptor areas should be incorporated into the new development (for example in buffer strips beside retained hedges, as noted above).
- New development may need to incorporate bat roosts as alternative or replacement habitat if roosts are likely to be lost.
- Insofar as any proposed development of the Site allows, lighting design, particularly for the periphery of the Site should be minimised as far as possible. As a minimum, any lighting along Site boundaries that may potentially form important commuting corridors (e.g. hedgerows) or adjacent woodlands that may support bat roosts should make use of backboards and/or internal louvres to ensure light is directed into the Site and light spill into the adjacent areas of retained habitat is minimised.
- If dormice are found to be present the retention and appropriate buffering of hedges (as noted above).
- Subject to the status of the badger sett identified in the Site at the relevant time and the results of further more detailed surveys, it is likely that development of the Site would require the closure of the sett under licence from Natural England.

### Potential Enhancement Opportunities

Opportunities for enhancing, restoring and/or creating new habitats as an integral part of a Site's development that can also contribute to the District's wider ecological /green infrastructure network are identified below:

- Positively and appropriately manage retained habitats and features, including hedges and mature trees.
- Strengthen boundary vegetation, for example on the eastern part of the northern boundary of the field, by planting appropriate native species.
- Habitat creation, ideally located adjacent to retained or adjoining habitat, for example in field corners, or to form habitat corridors or links. To include for example:
  - Wildlife pond(s), included for example as part of a SuDS scheme;
  - Species-rich grassland and associated features for supporting a variety of terrestrial invertebrates;
  - Scrub and trees; and
  - Creation of dead wood habitats and other habitat piles.
- Erection of bat boxes suitable for a range of bat species, on retained trees or incorporated into buildings where they will remain unlit.
- Erection of bird boxes suitable for a range of bird species on retained trees or incorporated into buildings.
- Incorporate features to SuDS scheme(s), such as the use of native wetland plant species, to enhance their value.



ECOLOGICAL ASSESSMENT																					
<b>Settlement/Area:</b>	Heathfield																				
<b>Site Address:</b>	Land North of Holbrook Barn, Cross-in-Hand, Heathfield																				
<b>Site Reference Number:</b>	578/1210																				
Site Summary Description																					
A 0.61ha Site comprising a house and garden with amenity grassland, hedges, beds and borders and trees.																					
ECOLOGICAL BASELINE																					
Green Infrastructure Context (see Figure 21.1)																					
<p>The Site is located within the broader High Weald landscape of small to medium sized fields, including both grassland and arable, set within a relatively extensive and intact hedgerow network which includes frequent trees. Woodland, including Ancient Woodland, is relatively plentiful and includes both large and small parcels. The Site lies on the western side of Heathfield and forms one of a group of adjacent residential properties, often with quite large gardens. To the north and east are a sports field and residential areas but to the south west, beyond the A267, is open country of fields with hedges and woodland.</p>																					
Desk Study: Designated Sites within 1km (see Figure 21.2)	Distance from Site																				
<ul style="list-style-type: none"> <li>None</li> </ul>																					
Desk Study: BAP Priority Habitats within 1km	Distance from Site																				
<ul style="list-style-type: none"> <li>Ancient &amp; semi-natural woodland – Markly Wood</li> <li>Ancient &amp; semi-natural woodland – Heatherden Wood</li> <li>Ancient &amp; semi-natural woodland – Back Lane Shaw</li> <li>Ancient &amp; semi-natural woodland – Holman’s Wood ext</li> <li>Ancient &amp; semi-natural woodland – Holman’s Wood</li> <li>Ancient &amp; semi-natural woodland – Runtington / Crock-kiln / Geer’s Woods</li> <li>Ancient &amp; semi-natural woodland – Markly Wood ext.</li> <li>Lowland Heathland BAP priority habitat (un-named)</li> </ul>	<ul style="list-style-type: none"> <li>560m North</li> <li>600m North West</li> <li>980m South West</li> <li>450m South West</li> <li>370m South West</li> <li>500m South East</li> <li>760m North East</li> <li>990m North</li> </ul>																				
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**Sussex Rare Species Inventory**

*Erythromma viridulum*  
*Somatochlora metallica*

Small red-eyed damselfly  
 Brilliant emerald

**Notable Bird Inventory**

*Corvus corax*  
*Milvus milvus*  
*Phylloscopus sibilatrix*  
*Poecile Montana*

Raven  
 Red kite  
 Wood warbler  
 Willow tit

**Invasive Alien Species Inventory**

*Allium triquetrum*  
*Cotoneaster horizontalis*  
*Crocsmia pottsii* x *aurea* = *C. x crocosmiiflora*  
*Fallopia japonica*  
*Gaultheria shallon*  
*Harmonia axyridis*  
*Impatiens glandulifera*  
*Prunus laurocerasus*  
*Rhododendron ponticum*

Three-cornered garlic  
 Wall cotoneaster  
 Montbretia  
 Japanese Knotweed  
 Shallon  
 Harlequin Ladybird  
 Indian balsam  
 Cherry laurel  
 Rhododendron

**Field Survey: Habitat Descriptions (see Figure 21/578)**

**Amenity grassland** – much of the garden comprises a species poor sward comprising typical common and widespread species.

**Poor semi-improved grassland** – Small taller species poor area in the south west of the garden with scattered trees and shrub

**Introduced shrub** – Beds and borders.

**Trees** – Scattered throughout and including mature birch and ash.

**Hedges** – There is a line of cypresses forming a tall hedge on the northern boundary as well other species poor cypress and beech hedges.

There is a species rich hedge, with hazel, holly, hawthorn, ash and sycamore on part of the western boundary.

**Buildings** – House with pitched and tiled roof.

**Field Survey: Protected and Notable Species**

Badger – possible foraging signs are recorded on the lawn.

**Field Survey: Invasive Non-native Species**

No invasive non-native species recorded within the Site.

**Assessment of Potential for Protected and Notable Species**

**Great crested newts** – There are no ponds within the Site. However, OS maps and aerial images indicate the presence of ponds approximately 180m to the south, near Holbrook House, and 200m to the south west, beyond the A267. Hedges and other areas of undisturbed vegetation represent suitable terrestrial habitat for great crested newts within the Site. However, the A267 would represent a significant barrier to dispersal from the south west.

**Reptiles** – Very limited potential among taller grass areas in the south west of the Site.

**Breeding birds** – In trees, hedges and shrubs.

**Bats** – Trees and mature trees in particular, with features such as cracks and cavities, have potential to be used as roosts. The house may also have some potential to be used as a roost. Activity, including foraging and commuting, is most likely around trees.

**Dormice** – Low potential in hedge on western boundary due to limited habitat connectivity.  
**Badgers** – Potential for setts within hedges, but with or without setts badgers may also use any part of the Site for foraging.

### Recommendations for Further Survey

**Amphibian (including great crested newt)** – (March – June) of the pond to the south of the Site.  
**Reptiles** – (May – June, September – October) in suitable habitat.  
**Bats** – (inspections: year round; activity surveys April – October) in the first instance inspection of trees and house to determine the scope for further survey.  
**Dormice** – (April – November) in suitable habitat.  
**Badgers** – (Year round but Spring / Autumn optimal) of whole site.

### INDICATIVE ECOLOGICAL APPRAISAL

**Low value** – house and garden comprising a significant proportion of non-native and/or species-poor vegetation. The species rich hedge and mature trees are probably the features of greatest value. The Sites habitats and features have moderate potential to support notable/protected species.

### Impact Avoidance

In order to limit, as far as possible, potentially adverse effects of development including potential harm to the integrity of the wider green infrastructure network, effort should be made to avoid the more ecologically valuable parts of the Site by:

- Retaining the mature trees and their features.
- As far as possible and appropriate retaining and buffering habitats and features supporting notable/protected species, based on the results of more detailed surveys.

### Outline Mitigation

Should development at this Site proceed, generic (standard) mitigation for impacts upon habitats and species is set out below. Further detailed or species-specific mitigation may be required dependent upon the outcome of the recommended protected habitat or species surveys.

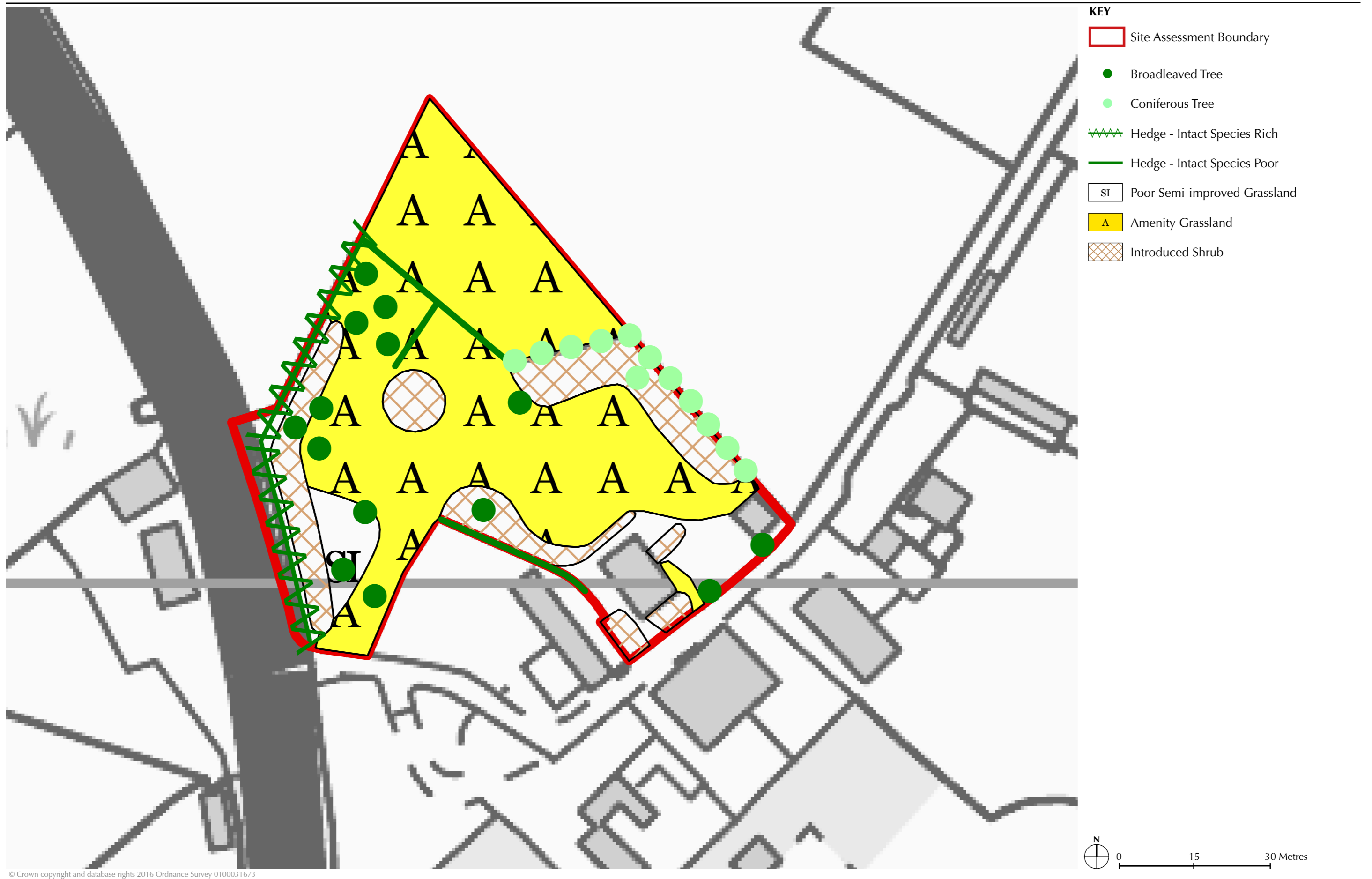
- Implementation of a Construction and Environmental Management Plan (CEMP) to manage site-specific issues relating to the potential impacts of construction on ecological features of interest.
- Timing of vegetation clearance works to avoid the bird breeding season (March – August inclusive).
- Offset buffers to protect retained habitats (minimum 10m).
- Use of protective fencing to define construction areas and protect retained habitats.
- Avoidance of night-time working wherever possible. When not possible, use directional lighting to prevent lightshed into surrounding habitats.
- Inclusion of mammal ladders or similar in any trenches left open overnight.
- Sealing of pipework overnight, to prevent animals becoming trapped.
- Defined and bunded areas for fuel storage and refuelling to prevent spillages and pollution incidents.
- On-Site spill incident equipment, in the event of spillages of fuel or other materials. Specific measures will be required if any works are close to watercourses and/or waterbodies.
- If great crested newts are found to be present in the pond to the south of the Site then measures should be put in place to prevent harming or killing them, including for example the erection of herptile fencing to exclude them from work areas, and possibly trapping and translocation to suitable receptor areas elsewhere.
- If reptiles are found to be present, measures to prevent harm to them, including potentially translocation from the development Site to a suitable receptor site. Where feasible such receptor areas should be incorporated into the new development (for example in buffer strips beside retained hedges, as noted above).
- New development may need to incorporate bat roosts as alternative or replacement habitat if roosts are likely to be lost.

- Insofar as any proposed development of the Site allows, lighting design, particularly for the periphery of the Site should be minimised as far as possible. As a minimum, any lighting along Site boundaries that may potentially form important commuting corridors (e.g. hedgerows) or adjacent woodlands that may support bat roosts should make use of backboards and/or internal louvres to ensure light is directed into the Site and light spill into the adjacent areas of retained habitat is minimised.
- If dormice are found to be present the retention and appropriate buffering of hedge (as noted above).
- Development should avoid construction works within at least 30m of the nearest badger setts and seek to avoid prime foraging grounds identified through the badger survey and severance of commuting corridors within territories.

### **Potential Enhancement Opportunities**

Opportunities for enhancing, restoring and/or creating new habitats as an integral part of a Site's development that can also contribute to the District's wider ecological /green infrastructure network are identified below:

- Positively and appropriately manage retained habitats and features, including hedge and mature trees
- Replace species poor non-native hedges on boundaries with hedges comprising appropriate native species.
- Habitat creation, ideally located adjacent to retained or adjoining habitat, for example adjacent to the hedge on the western boundary, or to form habitat corridors or links. To include for example:
  - Wildlife pond(s), included for example as part of a SuDS scheme;
  - Species-rich grassland and associated features for supporting a variety of terrestrial invertebrates;
  - Scrub and trees; and
  - Creation of dead wood habitats and other habitat piles.
- Erection of bat boxes suitable for a range of bat species, on retained trees or incorporated into buildings where they will remain unlit.
- Erection of bird boxes suitable for a range of bird species on retained trees or incorporated into buildings.
- Incorporate features to SuDS scheme(s), such as the use of native wetland plant species, to enhance their value.



ECOLOGICAL ASSESSMENT															
<b>Settlement/Area:</b>	Heathfield														
<b>Site Address:</b>	Rothershaw, Cross-in-Hand Road, Heathfield														
<b>Site Reference Number:</b>	595/1210														
Site Summary Description															
A 0.4ha Site comprising a house and garden with amenity grassland, trees and shrubs and a stand of the invasive non-native Japanese knotweed. The Site boundary also includes a section of species-poor grassland field with mature oak trees to the north.															
ECOLOGICAL BASELINE															
Green Infrastructure Context (see Figure 21.1)															
The Site is located within the broader High Weald landscape of small to medium sized fields, including both grassland and arable, set within a relatively extensive and intact hedgerow network which includes frequent trees. Woodland, including Ancient Woodland, is relatively plentiful and includes both large and small parcels. The Site lies on the north western edge of Heathfield, to the north of the A265 and on the edge of a residential area to the south. To the north are some small fields with hedges, beyond which, approximately 100m from the Site, is the extensive Markly Wood, which includes both Ancient Woodland and plantation.															
Desk Study: Designated Sites within 1km (see Figure 21.2)	Distance from Site														
<ul style="list-style-type: none"> <li>None</li> </ul>															
Desk Study: BAP Priority Habitats within 1km	Distance from Site														
<ul style="list-style-type: none"> <li>Ancient &amp; semi-natural woodland – Markly Wood</li> <li>Ancient &amp; semi-natural woodland – Coalend / Button / Dunley Woods</li> <li>Ancient &amp; semi-natural woodland – Heatherden Wood</li> <li>Ancient &amp; semi-natural woodland – Holman's Wood</li> <li>Ancient &amp; semi-natural woodland – Runtington / Crock-kiln / Geer's Woods</li> <li>Ancient &amp; semi-natural woodland – Markly Wood ext.</li> <li>Lowland Heathland BAP priority habitat (6 areas, un-named)</li> </ul>	<ul style="list-style-type: none"> <li>125m North</li> <li>725m WNW</li> <li>530m South West</li> <li>975m SSW</li> <li>840m South</li> <li>400m North East</li> <li>400-950m NE - NW</li> </ul>														
Desk Study: Protected and Notable Species within 1km															
<p><b>Protected Species</b></p> <table> <tr> <td><i>Myotis nattereri</i></td><td>Natterer's bat</td></tr> <tr> <td><i>Pipistrellus pipistrellus</i></td><td>Common Pipistrelle (45 kHz) bat</td></tr> <tr> <td><i>Plecotus auritus</i></td><td>Brown Long-eared bat</td></tr> </table> <p><b>Sussex BAP Species</b></p> <table> <tr> <td><i>Bufo bufo</i></td><td>Common toad</td></tr> <tr> <td><i>Erinaceus europaeus</i></td><td>European hedgehog</td></tr> <tr> <td><i>Limenitis camilla</i></td><td>White admiral</td></tr> </table> <p><b>Sussex Rare Species Inventory</b></p> <table> <tr> <td><i>Somatochlora metallica</i></td><td>Brilliant emerald</td></tr> </table>		<i>Myotis nattereri</i>	Natterer's bat	<i>Pipistrellus pipistrellus</i>	Common Pipistrelle (45 kHz) bat	<i>Plecotus auritus</i>	Brown Long-eared bat	<i>Bufo bufo</i>	Common toad	<i>Erinaceus europaeus</i>	European hedgehog	<i>Limenitis camilla</i>	White admiral	<i>Somatochlora metallica</i>	Brilliant emerald
<i>Myotis nattereri</i>	Natterer's bat														
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<i>Limenitis camilla</i>	White admiral														
<i>Somatochlora metallica</i>	Brilliant emerald														

<b>Notable Bird Inventory</b>	
<i>Ardea cinerea</i>	Grey heron
<i>Corvus corax</i>	Raven
<i>Phylloscopus sibilatrix</i>	Wood warbler
<b>Invasive Alien Species Inventory</b>	
<i>Allium triquetrum</i>	Three-cornered garlic
<i>Cotoneaster horizontalis</i>	Wall cotoneaster
<i>Crocsmia pottsii</i> x <i>aurea</i> = <i>C. x crocosmiiflora</i>	Montbretia
<i>Fallopia japonica</i>	Japanese Knotweed
<i>Gaultheria shallon</i>	Shallon
<i>Harmonia axyridis</i>	Harlequin Ladybird
<i>Impatiens glandulifera</i>	Indian balsam
<i>Prunus laurocerasus</i>	Cherry laurel
<i>Rhododendron ponticum</i>	Rhododendron
<b>Field Survey: Habitat Descriptions (see Figure 21/595)</b>	
<p><b>Amenity grassland</b> – Species poor and comprising typical common and widespread species.</p> <p><b>Tall ruderal</b> – There are stands of mostly nettle beside the house and along the northern boundary.</p> <p><b>Trees and scrub</b> – Trees and shrubs, including both native and non-native species and mature specimens are distributed across the garden, with a concentration in the south western corner, which forms a ‘wooded’ area over mown grass with planted shrubs, and on the western boundary.</p> <p><b>Hedges</b> – The eastern boundary of the Site is marked by a species poor non-native hedge.</p> <p><b>Buildings</b> – House with pitched and tiled roof and tile-hung elevations.</p> <p><b>Field north of garden</b> – Includes stands of tall ruderal and bracken on the boundary between the garden and the field and a section of species poor grassland as well as mature oak trees.</p>	
<b>Field Survey: Protected and Notable Species</b>	
No species considered notable for their nature conservation value recorded during the Phase I habitat field survey.	
<b>Field Survey: Invasive Non-native Species</b>	
<p>Japanese knotweed – stand on the western boundary at <b>TN1</b>.</p> <p>Rhododendron – in the wooded area in the south western part of the Site and on the western boundary.</p>	
<b>Assessment of Potential for Protected and Notable Species</b>	
<p><b>Great crested newts</b> – There are no ponds within the Site. However, there is a pond approximately 90m to the north and OS maps indicate the presence of further ponds in the woodland to the north. There is some potential for the presence of great crested newts on Site due to the presence of suitable terrestrial habitat in the form of tall ruderal, bracken and scrub around the northern and western boundaries.</p> <p><b>Reptiles</b> – Potential among tall ruderal and bracken in the north of the Site and along boundaries.</p> <p><b>Breeding birds</b> – In trees, scrub and hedge.</p> <p><b>Bats</b> – Trees and mature trees in particular, with features such as cracks and cavities, on and near the boundaries and in the woodland, have potential to be used as roosts. The house also appears to have potential for roosts. Activity, including foraging and commuting, is likely throughout, but especially around trees.</p> <p><b>Badgers</b> – Potential for setts on boundaries, but with or without setts badgers may also use any or all of the Site for foraging. However, neither setts nor foraging signs are recorded during the survey.</p>	

### Recommendations for Further Survey (and optimal survey timings)

**Amphibian (including great crested newt)** – (March – June) of the pond to the north of the Site.

**Reptiles** – (May – June, September – October) in suitable habitat.

**Bats** – (inspections: year round; activity surveys April – October) in the first instance inspection of trees and house to determine the scope for further survey and activity surveys.

**Badgers** – (Year round but Spring / Autumn optimal) of whole site.

### INDICATIVE ECOLOGICAL APPRAISAL

**Low** – largely house and garden, though the mature trees have value and there is some connectivity to the north.

The Sites habitats and features have moderate potential to support notable/protected species.

### Impact Avoidance

In order to limit, as far as possible, potentially adverse effects of development including potential harm to the integrity of the wider green infrastructure network, effort should be made to avoid the more ecologically valuable parts of the Site by:

- Retaining the mature trees and their features.
- As far as possible and appropriate retaining and buffering habitats and features supporting notable/protected species, based on the results of more detailed surveys.

### Outline Mitigation

Should development at this Site proceed, generic (standard) mitigation for impacts upon habitats and species is set out below. Further detailed or species-specific mitigation may be required dependent upon the outcome of the recommended protected habitat or species surveys.

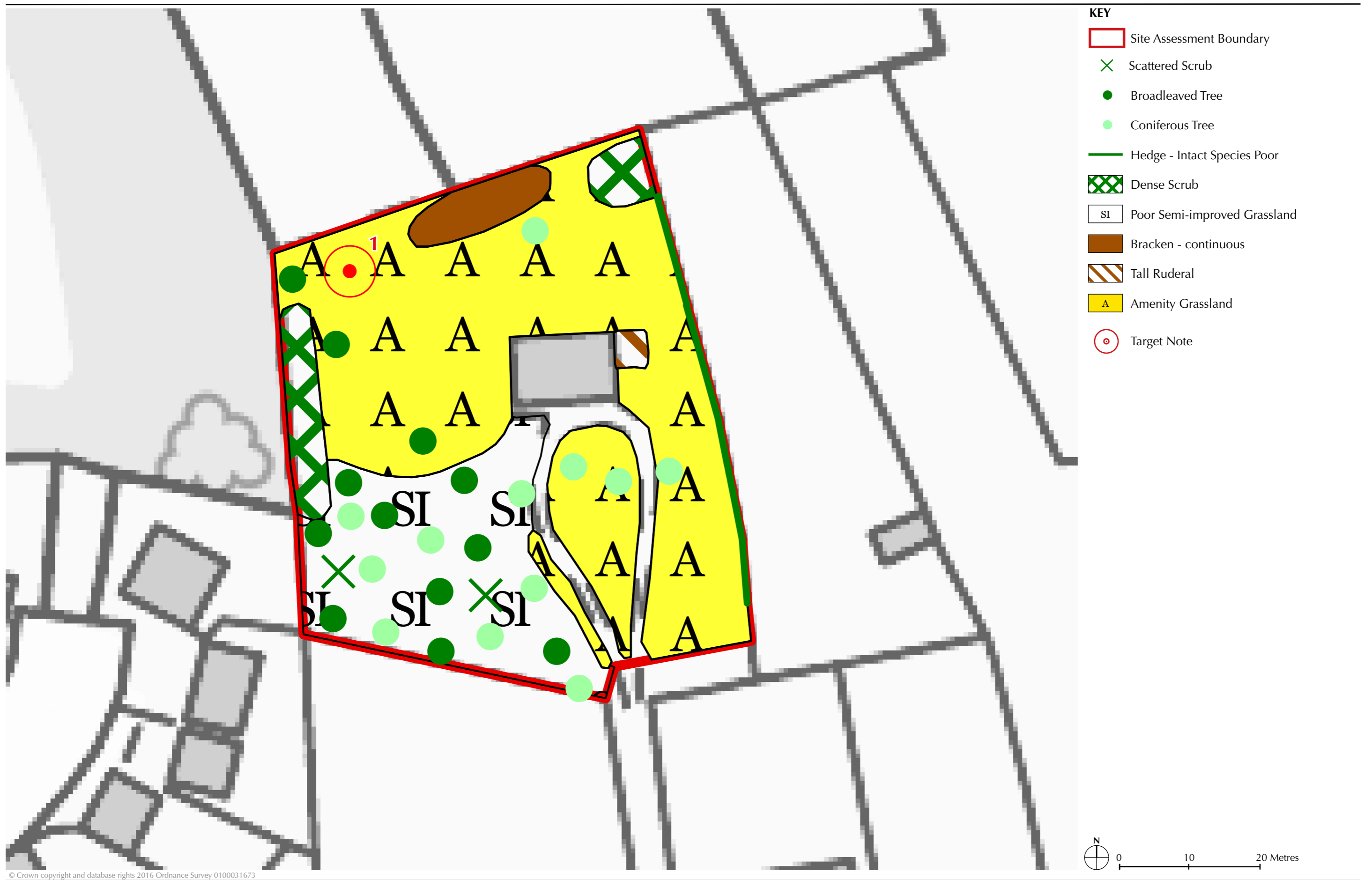
- Implementation of a Construction and environmental Management Plan (CEMP) to manage site-specific issues relating to the potential impacts of construction on ecological features of interest.
- Timing of vegetation clearance works to avoid the bird breeding season (March – August inclusive).
- Offset buffers to protect retained habitats (minimum 10m).
- Use of protective fencing to define construction areas and protect retained habitats.
- Avoidance of night-time working wherever possible. When not possible, use directional lighting to prevent lightshed into surrounding habitats.
- Inclusion of mammal ladders or similar in any trenches left open overnight.
- Sealing of pipework overnight, to prevent animals becoming trapped.
- Defined and bunded areas for fuel storage and refuelling to prevent spillages and pollution incidents.
- On-Site spill incident equipment, in the event of spillages of fuel or other materials. Specific measures will be required if any works are close to watercourses and/or waterbodies.
- If great crested newts are found to be present in the pond to the north of the Site then measures should be put in place to prevent harming or killing them, including for example the erection of herptile fencing to exclude them from work areas and possibly trapping and translocation to suitable receptor areas elsewhere.
- If reptiles are found to be present, measures to prevent harm to them, including potentially translocation from the development Site to a suitable receptor site. Where feasible such receptor areas should be incorporated into the new development (for example in buffer strips beside retained hedges, as noted above).
- In light of the potential presence of breeding birds, if possible cutting back or removal of woody vegetation, including trees, shrubs/scrub and hedgerows, should not be carried out during the bird breeding season, which is March-August inclusive. If this is not possible then the relevant vegetation/areas should be inspected by a suitably qualified ecologist for the presence of breeding birds prior to the commencement of works.

- New development may need to incorporate bat roosts as alternative or replacement habitat if roosts are likely to be lost.
- Insofar as any proposed development of the Site allows, lighting design, particularly for the periphery of the Site should be minimised as far as possible. As a minimum, any lighting along Site boundaries that may potentially form important commuting corridors (e.g. hedgerows) or adjacent woodlands that may support bat roosts should make use of backboards and/or internal louvres to ensure light is directed into the Site and light spill into the adjacent areas of retained habitat is minimised.
- Development should avoid construction works within at least 30m of the nearest badger setts and seek to avoid prime foraging grounds identified through the badger survey and severance of commuting corridors within territories.
- Control of invasive non-native Japanese knotweed in line with Environment Agency guidelines.

### **Potential Enhancement Opportunities**

Opportunities for enhancing, restoring and/or creating new habitats as an integral part of a Site's development that can also contribute to the District's wider ecological /green infrastructure network are identified below:

- Positively and appropriately manage retained habitats and features, including mature trees.
- Strengthen boundary vegetation, including removal of non-native species and replant with appropriate native species.
- Habitat creation, ideally located adjacent to retained or adjoining habitat, for example in a corner of the Site, or to form habitat corridors or links. To include for example:
  - Wildlife pond(s), included for example as part of a SuDS scheme;
  - Species-rich grassland and associated features for supporting a variety of terrestrial invertebrates;
  - Scrub and trees; and
  - Creation of dead wood habitats and other habitat piles.
- Erection of bat boxes suitable for a range of bat species, on retained trees or incorporated into buildings where they will remain unlit.
- Erection of bird boxes suitable for a range of bird species on retained trees or incorporated into buildings.
- Incorporate features to SuDS scheme(s), such as the use of native wetland plant species, to enhance their value.



ECOLOGICAL ASSESSMENT	
Settlement/Area:	Heathfield
Site Address:	Land at Heatherlea, Newick Lane, Heathfield
Site Reference Number:	597/1210
Site Summary Description	
<p>A 2.13ha Site comprising a mosaic, including house and garden, an area of tall unmanaged grassland with bracken and tall ruderal, trees and shrubs and a small wooded area with native and non-native species.</p> <p><b>**This Site was subject to a reduced survey, carried out during an unsuccessful attempt to contact the landowners, and lacks detail in some areas, for example in terms of grassland species composition.**</b></p>	
ECOLOGICAL BASELINE	
Green Infrastructure Context (see Figure 21.1)	
<p>The Site is located within the broader High Weald landscape of small to medium sized fields, including both grassland and arable, set within a relatively extensive and intact hedgerow network which includes frequent trees. Woodland, including Ancient Woodland, is relatively plentiful and includes both large and small parcels. The Site lies on the north eastern edge of Heathfield, to the east of Newick Lane and a little to the north of Burwash Road. Immediately to the south and east there are commercial premises. To the north and lies open countryside comprising fields with hedges and areas of woodland. Heathfield Park, which includes relatively extensive areas of Deciduous Woodland, including Ancient Woodland, and Wood Pasture and Parkland BAP Priority Habitats (see Desk Study: BAP Priority Habitats), lies approximately 150m to the south. Part of this is also designated SSSI (see Desk Study: Designated Sites and Figure 21.2).</p>	
Desk Study: Designated Sites within 1km (see Figure 21.2)	Distance from Site
<ul style="list-style-type: none"> <li>The Site lies approximately 350m north to the nearest point of <b>Heathfield Park SSSI</b>. The Citation states: <i>"This Site is an example of an ancient Wealden Gill woodland formed by the vigorous downcutting of a stream into the Ashdown Sand series of the Hastings Beds. A number of 'Atlantic' plants, uncommon in the south-east, are present and the lichen flora is also notable ... The woodland is dominated by mature beech Fagus sylvatica with both pedunculate and sessile oak Quercus robur and Q. petraea, holly Ilex aquifolium and scattered yew Taxus baccata. In the north and east birch Betula spp. becomes frequent and the stream valleys contain willow Salix spp. and alder Alnus glutinosa ... Continuous woodland cover in this sheltered Gill provides a moist, mild microclimate and a number of plant species occur here which are otherwise restricted to western counties, including Cornish moneywort Sibthorpia europaea, hay-scented buckler-fern Dryopteris aemula and the liverwort Frullania tamarisci. The Site is also of county importance for lichens: a total of 76 species have been recorded here ... The lakes add to the value of the Site for dragonflies and birds."</i></li> </ul>	<ul style="list-style-type: none"> <li>350m South of the Site.</li> </ul>
Desk Study: BAP Priority Habitats within 1km	Distance from Site
<ul style="list-style-type: none"> <li>Ancient &amp; semi-natural woodland – Black Wood</li> <li>Ancient &amp; semi-natural woodland – Oaken Wood</li> <li>Ancient &amp; semi-natural woodland – Markly Wood ext</li> <li>Ancient &amp; semi-natural woodland – Heathfield Park</li> </ul>	<ul style="list-style-type: none"> <li>340m North</li> <li>370m North West</li> <li>740m West</li> <li>170m South</li> </ul>

<ul style="list-style-type: none"> <li>• Ancient &amp; semi-natural woodland – Stores Wood</li> <li>• Ancient &amp; semi-natural woodland – Coneyburrow Wood</li> <li>• Wood Pasture &amp; Parkland BAP priority habitat (part of Heathfield Park SSSI)</li> </ul>	<ul style="list-style-type: none"> <li>• 950m South East</li> <li>• 560m North East</li> <li>• 540m South</li> </ul>
<b>Desk Study: Protected and Notable Species within 1km</b>	
<p><b>Sussex BAP Species</b>  <i>Limenitis camilla</i> White admiral</p> <p><b>Sussex Rare Species Inventory</b>  <i>Buxus sempervirens</i> Box  <i>Eleogiton fluitans</i> Floating Club-rush  <i>Sibthorpia europaea</i> Cornish Moneywort  <i>Somatochlora metallica</i> Brilliant emerald</p> <p><b>Notable Bird Inventory</b>  <i>Apus apus</i> Swift  <i>Ardea cinerea</i> Grey heron  <i>Delichon urbicum</i> House martin  <i>Hirundo rustica</i> Swallow  <i>Tyto alba</i> Barn owl</p> <p><b>Invasive Alien Species Inventory</b>  <i>Campylopus introflexus</i> Heath Star Moss  <i>Centranthus ruber</i> Red valerian  <i>Cotoneaster simonsii</i> Himalayan cotoneaster  <i>Crococsmia pottsii</i> x <i>aurea</i> = <i>C. x crocosmiiflora</i> Montbretia  <i>Fallopia japonica</i> Japanese Knotweed  <i>Hyacinthoides non-scripta</i> x <i>hispanica</i>  (= <i>H. x massartiana</i>) Hybrid bluebell  <i>Lamiastrum galeobdolon</i> subsp. <i>Argentatum</i> Variegated yellow archangel  <i>Petasites fragrans</i> Winter heliotrope  <i>Prunus laurocerasus</i> Cherry laurel  <i>Rhododendron ponticum</i> Rhododendron</p>	
<b>Field Survey: Habitat Descriptions (see Figure 21/597)</b>	
<p><b>Poor semi-improved grassland</b> – The eastern part of the Site comprises an area of unmanaged grassland with stands of bracken and tall ruderal. Species composition is unknown but it appears to be species poor.</p> <p><b>Amenity grassland</b> – Present in the centre of the Site. Species composition is unknown but it appears species poor.</p> <p><b>Tall ruderal</b> – In addition to the areas identified above there are small stands of tall ruderal scattered across the Site, for example beside buildings.</p> <p><b>Trees and scrub</b> – There is a small wooded area in the west of the Site, comprising largely of beech and birch trees over invasive non-native cherry laurel and Rhododendron. There is much bare ground but some patchy bracken and bramble.</p> <p>The southern boundary, which at least in part appears to be on a bank and may represent an old hedge line, comprises trees, especially beech, as well as mix of native shrubs, such as holly, and invasive non-native cherry laurel and Rhododendron. The field layer of the western end of this included frequent broad buckler fern <i>Dryopteris dilatata</i> and foxglove <i>Digitalis purpurea</i>.</p> <p>There are further trees and shrubs on the eastern and part of the northern boundaries, as well as scattered among the grassland, bracken and tall ruderal in the eastern part of the Site.</p> <p><b>Buildings</b> – Includes a house with pitched and tiled roof as well a number of outbuildings.</p>	

### Field Survey: Protected and Notable Species

No species considered notable for their nature conservation value recorded during the Phase I habitat field survey.

### Field Survey: Invasive Non-native Species

Rhododendron and cherry laurel are widespread, for example in the wooded area and along the southern boundary.

### Assessment of Potential for Protected and Notable Species

**Great crested newts** – There are no ponds within the Site. However, OS maps indicate the presence of a pond among woodland near Oaklands Farm, approximately 230m north of the Site. The areas within the Site of undisturbed vegetation, including unmanaged grassland, tall ruderal, bracken and trees and scrub represent suitable terrestrial habitat for great crested newts. However, in light of the distance to the pond and the widespread availability of suitable terrestrial habitat for great crested newts close to it the probability of them occurring within the Site is considered low.

**Reptiles** – Potential among tall grassland, ruderal and bracken in the eastern part of the Site.

**Breeding birds** – In trees and scrub/shrubs.

**Bats** – Trees and mature trees in particular, with features such as cracks and cavities, for example those in the small wooded area in the west or on the southern boundary, have potential to be used as roosts. The house may also have some potential to be used as a roost. Given the habitats and features present activity, including foraging and commuting, is likely throughout, but especially around trees and other boundary vegetation.

**Dormice** – moderate potential in scrub and boundary vegetation due to connectivity to habitats to the north and west.

**Badgers** – Potential for setts within the hedgerows and other boundary vegetation, but with or without setts badgers may also use any or all of the Site for foraging. However, neither setts nor foraging signs are recorded during the survey.

### Recommendations for Further Survey (and optimal survey timings)

**Reptiles** – (May – June, September – October) in suitable habitat throughout the Site.

**Bats** – (inspections: year round; activity surveys April – October) in the first instance inspection of trees and house to determine the scope for further survey and activity surveys.

**Dormice** – (April – November) in suitable habitat.

**Badgers** – (Year round but Spring / Autumn optimal) of whole site.

### INDICATIVE ECOLOGICAL APPRAISAL

**Low to Moderate value** – mostly common and widespread habitats and features but the mature trees in the wooded area and on the boundaries are of moderate value and are connected to a wider ecological network, especially to the north and west.

The Sites habitats and features have moderate potential to support notable/protected species.

## Impact Avoidance

In order to limit, as far as possible, potentially adverse effects of development including potential harm to the integrity of the wider green infrastructure network, effort should be made to avoid the more ecologically valuable parts of the Site by:

- Retaining the mature trees and their features.
- As far as possible and appropriate retaining and buffering habitats and features supporting notable/protected species, based on the results of more detailed surveys.

## Outline Mitigation

Should development at this Site proceed, generic (standard) mitigation for impacts upon habitats and species is set out below. Further detailed or species-specific mitigation may be required dependent upon the outcome of the recommended protected habitat or species surveys.

- Implementation of a Construction and environmental Management Plan (CEMP) to manage site-specific issues relating to the potential impacts of construction on ecological features of interest.
- Timing of vegetation clearance works to avoid the bird breeding season (March – August inclusive).
- Offset buffers to protect retained habitats (minimum 10m).
- Use of protective fencing to define construction areas and protect retained habitats.
- Avoidance of night-time working wherever possible. When not possible, use directional lighting to prevent lightshed into surrounding habitats.
- Inclusion of mammal ladders or similar in any trenches left open overnight.
- Sealing of pipework overnight, to prevent animals becoming trapped.
- Defined and bunded areas for fuel storage and refuelling to prevent spillages and pollution incidents.
- On-Site spill incident equipment, in the event of spillages of fuel or other materials. Specific measures will be required if any works are close to watercourses and/or waterbodies.
- If reptiles are found to be present, measures to prevent harm to them, including potentially translocation from the development Site to a suitable receptor site. Where feasible such receptor areas should be incorporated into the new development (for example in buffer strips beside retained hedges, as noted above).
- New development may need to incorporate bat roosts as alternative or replacement habitat if roosts are likely to be lost.
- Insofar as any proposed development of the Site allows, lighting design, particularly for the periphery of the Site should be minimised as far as possible. As a minimum, any lighting along Site boundaries that may potentially form important commuting corridors (e.g. hedgerows) or adjacent woodlands that may support bat roosts should make use of backboards and/or internal louvres to ensure light is directed into the Site and light spill into the adjacent areas of retained habitat is minimised.
- If dormice are found to be present the retention and appropriate buffering of boundary vegetation (as noted above).

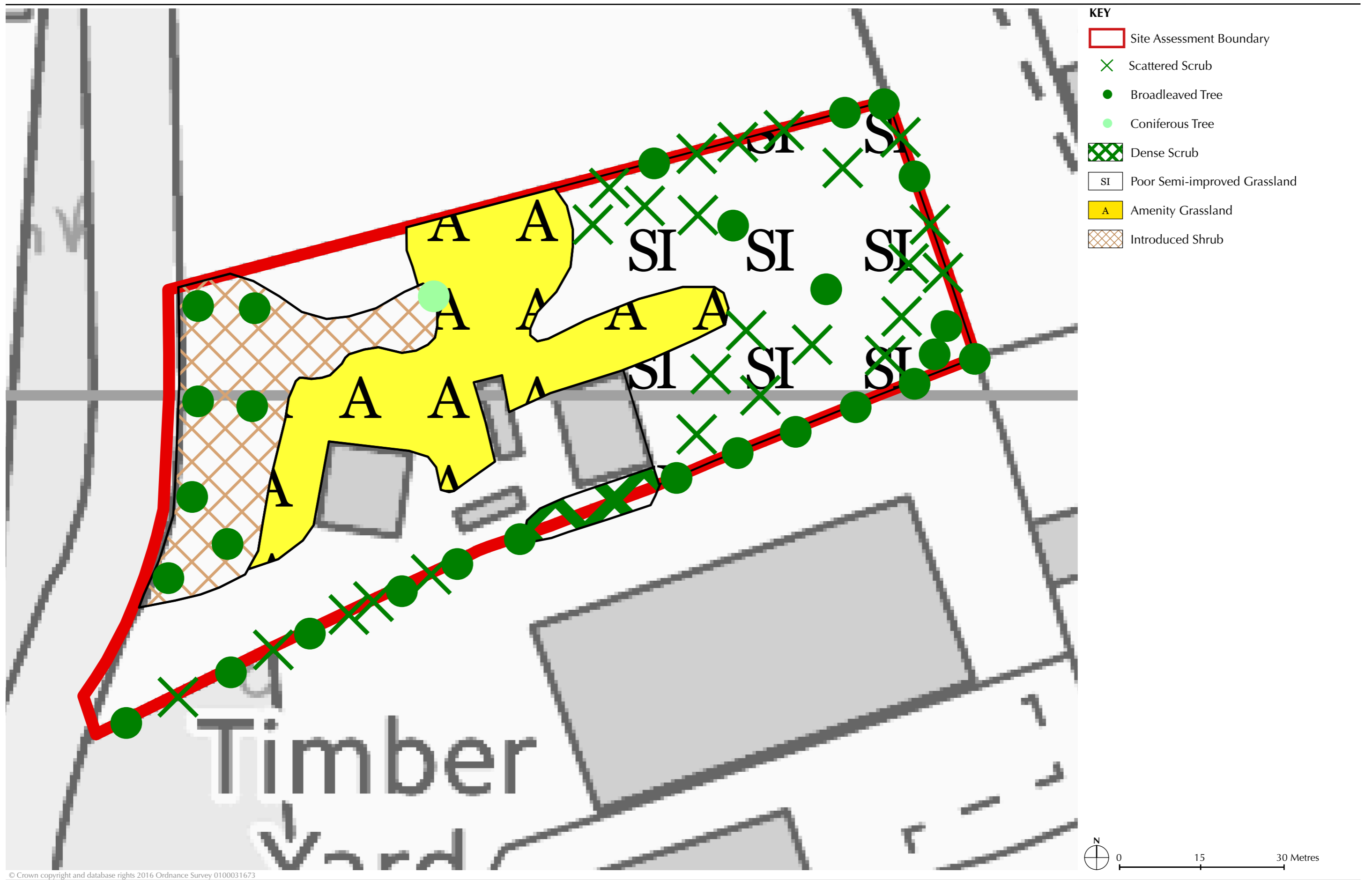
Development should avoid construction works within at least 30m of the nearest badger setts and seek to avoid prime foraging grounds identified through the badger survey and severance of commuting corridors within territories.

## Potential Enhancement Opportunities

Opportunities for enhancing, restoring and/or creating new habitats as an integral part of a Site's development that can also contribute to the District's wider ecological /green infrastructure network are identified below:

- Positively and appropriately manage retained habitats and features, including mature trees and other boundary vegetation, and to include the removal of non-native species including invasive Rhododendron and cherry laurel.
- Planting of appropriate native species to strengthen boundary vegetation, including linking the existing wooded area and boundary vegetation on the eastern part of the northern boundary.
- Habitat creation, ideally located adjacent to retained or adjoining habitat, for example in a corner of the Site, or to form habitat corridors or links. To include for example:

- Wildlife pond(s), included for example as part of a SuDS scheme;
  - Species-rich grassland and associated features for supporting a variety of terrestrial invertebrates;
  - Scrub and trees; and
  - Creation of dead wood habitats and other habitat piles.
- Erection of bat boxes suitable for a range of bat species, on retained trees or incorporated into buildings where they will remain unlit.
  - Erection of bird boxes suitable for a range of bird species on retained trees or incorporated into buildings.
- Incorporate features to SuDS scheme(s), such as the use of native wetland plant species, to enhance their value.



ECOLOGICAL ASSESSMENT	
<b>Settlement/Area:</b>	Heathfield
<b>Site Address:</b>	Land at and Adjacent to Tilsmore Wood, Heathfield
<b>Site Reference Number:</b>	644/1210
Site Summary Description	
A 0.81ha Site comprising a species poor grassland field, species-rich hedges, house and adjacent amenity grassland and a very small wooded area as well as mature trees.	
ECOLOGICAL BASELINE	
Green Infrastructure Context (see Figure 21.1)	
The Site is located within the broader High Weald landscape of small to medium sized fields, including both grassland and arable, set within a relatively extensive and intact hedgerow network which includes frequent trees. Woodland, including Ancient Woodland, is relatively plentiful and includes both large and small parcels. The Site lies on the north western edge of Heathfield, to the north of the A265, on the edge of a residential area to the south. To the north, the Site adjoins the extensive Markly Wood, which includes both Ancient Woodland and plantation woodland.	
Desk Study: Designated Sites within 1km (see Figure 21.2)	Distance from Site
<ul style="list-style-type: none"> <li>None</li> </ul>	
Desk Study: BAP Priority Habitats within 1 km	Distance from Site
<ul style="list-style-type: none"> <li>Ancient &amp; semi-natural woodland – Markly Wood</li> <li>Ancient &amp; semi-natural woodland – Coalend / Buttons / Dunly Woods</li> <li>Ancient &amp; semi-natural woodland – Heatherden Wood</li> <li>Ancient &amp; semi-natural woodland – Holman's Wood ext.</li> <li>Ancient &amp; semi-natural woodland – Markly Wood ext.</li> <li>Lowland Heath BAP priority habitat (5 areas, un-named)</li> </ul>	<ul style="list-style-type: none"> <li>Adjacent North East</li> <li>500m North West</li> <li>50m West</li> <li>825m South</li> <li>750m East</li> <li>400-900m N-NE</li> </ul>
Desk Study: Protected and Notable Species within 1km	
<b>Protected Species</b> <i>Myotis nattereri</i> Natterer's bat <i>Pipistrellus pipistrellus</i> Common Pipistrelle (45 kHz) bat <i>Pipistrellus pygmaeus</i> Soprano pipistrelle (55kHz) bat <i>Plecotus auritus</i> Brown Long-eared bat  <b>Sussex BAP Species</b> <i>Bufo bufo</i> Common toad <i>Erinaceus europaeus</i> European hedgehog  <b>Sussex Rare Species Inventory</b> <i>Somatochlora metallica</i> Brilliant emerald  <b>Notable Bird Inventory</b> <i>Corvus corax</i> Raven <i>Phylloscopus sibilatrix</i> Wood warbler	

### Invasive Alien Species Inventory

<i>Cotoneaster horizontalis</i>	Wall cotoneaster
<i>Crocosmia pottsii</i> x <i>aurea</i> = <i>C. x crocosmiiflora</i>	Montbretia
<i>Fallopia japonica</i>	Japanese Knotweed
<i>Gaultheria shallon</i>	Shallon
<i>Harmonia axyridis</i>	Harlequin Ladybird
<i>Impatiens glandulifera</i>	Indian balsam
<i>Prunus laurocerasus</i>	Cherry laurel
<i>Rhododendron ponticum</i>	Rhododendron

### Field Survey: Habitat Descriptions (see Figure 21/644)

**Poor semi-improved grassland** – The field forming the western part of the Site is species poor. Yorkshire fog *Holcus lanatus* and common bent *Agrostis capillaris* are the most abundant grasses, but cocksfoot *Dactylis glomerata* is also frequent. Bracken soft rush *Juncus effusus* and oval sedge *Carex ovalis* are also present. Forb content is modest, with creeping and meadow buttercup *Ranunculus repens* and *acris*, greater bird's foot trefoil *Lotus pedunculatus* and common sorrel *Rumex acetosa* frequent and red and white clover *Trifolium pratense* and *repens*, lesser stitchwort *Stellaria graminea*, germander speedwell *Veronica chamaedrys* occasional. The field appears unmanaged with a moderately tall sward and locally frequent oak saplings.

**Amenity grassland** – Species poor and comprising a limited number of typical common and widespread species.

**Trees and scrub** – There are a number of mature oak and sweet chestnut trees standing among grass in the north east of the Site and a small 'wooded' area on the southern boundary. This includes oak, hornbeam and birch as well as holly and invasive non-native *Rhododendron*. Also at the entrance and on the southern boundary are a number of developing white poplars.

**Hedges** – On the northern and eastern boundaries are species rich with hazel, hawthorn, holly and sycamore. The hedge on the northern boundary includes mature trees of oak, birch and Scot's pine

**Buildings** – Includes a house and garage with pitched and tiled roofs

### Field Survey: Protected and Notable Species

No species considered notable for their nature conservation value recorded during the Phase I habitat field survey.

### Field Survey: Invasive Non-native Species

Rhododendron and cherry laurel – in the small wooded area on the southern boundary

### Assessment of Potential for Protected and Notable Species

**Great crested newts** – There are no ponds within the Site. However, there is a pond to the east and OS maps indicate the presence of another pond among woodland to the north west, both approximately 300-350m from the Site. Unmanaged grassland, hedges and wooded areas represent suitable terrestrial habitat for great crested newts within the Site. However, given the distance to the nearest ponds and the widespread availability of suitable terrestrial habitat close to them the probability of great crested newts being present within the Site is considered to be low.

**Reptiles** – Potential among unmanaged grassland, especially along boundaries.

**Breeding birds** – In trees and scrub

**Bats** – Trees and mature trees in particular, with features such as cracks and cavities, have potential to be used as roosts. The house may also have some potential to be used as a roost. Activity, including foraging and commuting, is likely throughout, but especially along the hedge and around trees..

**Dormice** – Moderate potential in wooded area and hedge due to connectivity with adjoining woodland.

**Badgers** – Potential for setts within the wooded area and hedge, but with or without setts badgers may also use any or all of the Site for foraging. However, neither setts nor foraging signs are recorded during the survey.

### Recommendations for Further Survey (and optimal survey timings)

**Reptiles** – (May – June, September – October) in suitable habitat throughout the Site

**Bats** – (inspections: year round; activity surveys April – October) in the first instance inspection of trees and house to determine the scope for further survey

**Dormice** – (April – November) in suitable habitat

**Badgers** – (Year round but Spring / Autumn optimal) of whole site

### INDICATIVE ECOLOGICAL APPRAISAL

**Low to Moderate value** – largely species poor grassland but the hedges and mature trees are of moderate value.

The Sites location, adjacent to the large Markly Wood, which includes areas of Ancient Woodland, increases its value and sensitivity.

The Sites habitats and features have moderate potential to support notable/protected species.

### Impact Avoidance

In order to limit, as far as possible, potentially adverse effects of development including potential harm to the integrity of the wider green infrastructure network, effort should be made to avoid the more ecologically valuable parts of the Site by:

- Retaining the wooded area and hedges and mature trees and their features.
- As far as possible and appropriate retaining and buffering habitats and features supporting notable/protected species, based on the results of more detailed surveys.

### Outline Mitigation

Should development at this Site proceed, generic (standard) mitigation for impacts upon habitats and species is set out below. Further detailed or species-specific mitigation may be required dependent upon the outcome of the recommended protected habitat or species surveys.

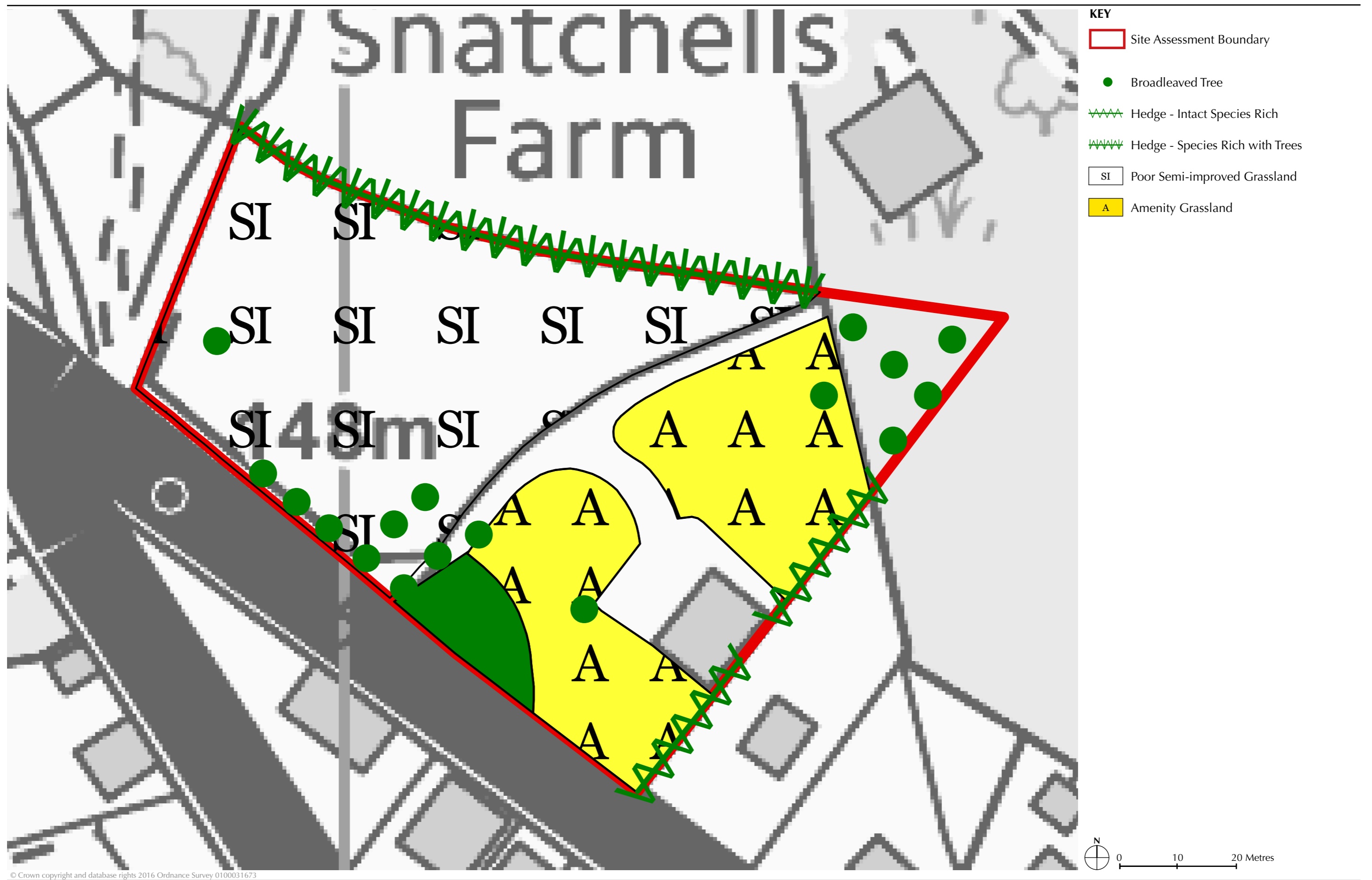
- Implementation of a Construction and environmental Management Plan (CEMP) to manage site-specific issues relating to the potential impacts of construction on ecological features of interest;
- Timing of vegetation clearance works to avoid the bird breeding season (March – August inclusive);
- Offset buffers to protect retained habitats (minimum 10m);
- Use of protective fencing to define construction areas and protect retained habitats;
- Avoidance of night-time working wherever possible. When not possible, use directional lighting to prevent lightshed into surrounding habitats;
- Inclusion of mammal ladders or similar in any trenches left open overnight;
- Sealing of pipework overnight, to prevent animals becoming trapped;
- Defined and bunded areas for fuel storage and refuelling to prevent spillages and pollution incidents;
- On-Site spill incident equipment, in the event of spillages of fuel or other materials. Specific measures will be required if any works are close to watercourses and/or waterbodies.
- If reptiles are found to be present, measures to prevent harm to them, including potentially translocation from the development Site to a suitable receptor site. Where feasible such receptor areas should be incorporated into the new development (for example in buffer strips beside retained hedges, as noted above).
- New development may need to incorporate bat roosts as alternative or replacement habitat if roosts are likely to be lost.
- Insofar as any proposed development of the Site allows, lighting design, particularly for the periphery of the Site should be minimised as far as possible. As a minimum, any lighting along Site boundaries that may potentially form important commuting corridors (e.g. hedgerows) or adjacent woodlands that may support bat roosts should make use of backboards and/or internal louvres to ensure light is directed into the Site and light spill into the adjacent areas of retained habitat is minimised.
- If dormice are found to be present the retention and appropriate buffering of wooded area and hedge (as noted above).

- Development should avoid construction works within at least 30m of the nearest badger setts and seek to avoid prime foraging grounds identified through the badger survey and severance of commuting corridors within territories.

#### **Potential Enhancement Opportunities**

Opportunities for enhancing, restoring and/or creating new habitats as an integral part of a Site's development that can also contribute to the District's wider ecological /green infrastructure network are identified below:

- Positively and appropriately manage retained habitats and features, including wooded area and mature trees.
- Habitat creation, ideally located adjacent to retained or adjoining habitat, for example along the Site's boundary with the Ancient Woodland, or to form habitat corridors or links. To include for example:
  - Wildlife pond(s), included for example as part of a SuDS scheme;
  - Species-rich grassland and associated features for supporting a variety of terrestrial invertebrates;
  - Scrub and trees; and
  - Creation of dead wood habitats and other habitat piles.
- Erection of bat boxes suitable for a range of bat species, on retained trees or incorporated into buildings where they will remain unlit.
- Erection of bird boxes suitable for a range of bird species on retained trees or incorporated into buildings.
- Incorporate features to SuDS scheme(s), such as the use of native wetland plant species, to enhance their value.



ECOLOGICAL ASSESSMENT																					
<b>Settlement/Area:</b>	Heathfield																				
<b>Site Address:</b>	Land at the Old Saddlery, Heathfield																				
<b>Site Reference Number:</b>	681/1210																				
Site Summary Description																					
A very small 0.11ha Site comprising areas of amenity and other rather species poor grassland with adjoining species poor non-native hedge and some trees.																					
ECOLOGICAL BASELINE																					
Green Infrastructure Context (see Figure 21.1)																					
The Site is located within a characteristic High Weald landscape of small to medium sized fields, including both grass and arable, set within a relatively extensive and intact hedgerow network which includes frequent trees. Woodland, including Ancient Woodland, is relatively plentiful, the majority of which are relatively large in size. The Site lies on the western side of Heathfield among a group of residential properties, often with quite large gardens, to the east of the A267. Some of these properties are immediately to the north, beyond which is a sports field and residential areas but to the south west, beyond the A267, is open country of fields with hedges and woodland.																					
Desk Study : Designated Sites within 1km (See Figure 21.2)	Distance from Site																				
<ul style="list-style-type: none"> <li>None</li> </ul>																					
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<p><b>Protected Species</b></p> <table> <tr> <td><i>Anguis fragilis</i></td><td>Slow worm</td></tr> <tr> <td><i>Myotis nattereri</i></td><td>Natterer’s bat</td></tr> <tr> <td><i>Natrix natrix</i></td><td>Grass snake</td></tr> <tr> <td><i>Nyctalus noctula</i></td><td>Noctule bat</td></tr> <tr> <td><i>Pipistrellus pipistrellus</i></td><td>Common Pipistrelle (45 kHz) bat</td></tr> <tr> <td><i>Pipistrellus pygmaeus</i></td><td>Soprano pipistrelle (55kHz) bat</td></tr> <tr> <td><i>Pipistrellus</i> sp.</td><td>Pipistrelle sp. bat</td></tr> <tr> <td><i>Plecotus auritus</i></td><td>Brown Long-eared bat</td></tr> </table> <p><b>Sussex BAP Species</b></p> <table> <tr> <td><i>Bufo bufo</i></td><td>Common toad</td></tr> <tr> <td><i>Erinaceus europaeus</i></td><td>European hedgehog</td></tr> </table>		<i>Anguis fragilis</i>	Slow worm	<i>Myotis nattereri</i>	Natterer’s bat	<i>Natrix natrix</i>	Grass snake	<i>Nyctalus noctula</i>	Noctule bat	<i>Pipistrellus pipistrellus</i>	Common Pipistrelle (45 kHz) bat	<i>Pipistrellus pygmaeus</i>	Soprano pipistrelle (55kHz) bat	<i>Pipistrellus</i> sp.	Pipistrelle sp. bat	<i>Plecotus auritus</i>	Brown Long-eared bat	<i>Bufo bufo</i>	Common toad	<i>Erinaceus europaeus</i>	European hedgehog
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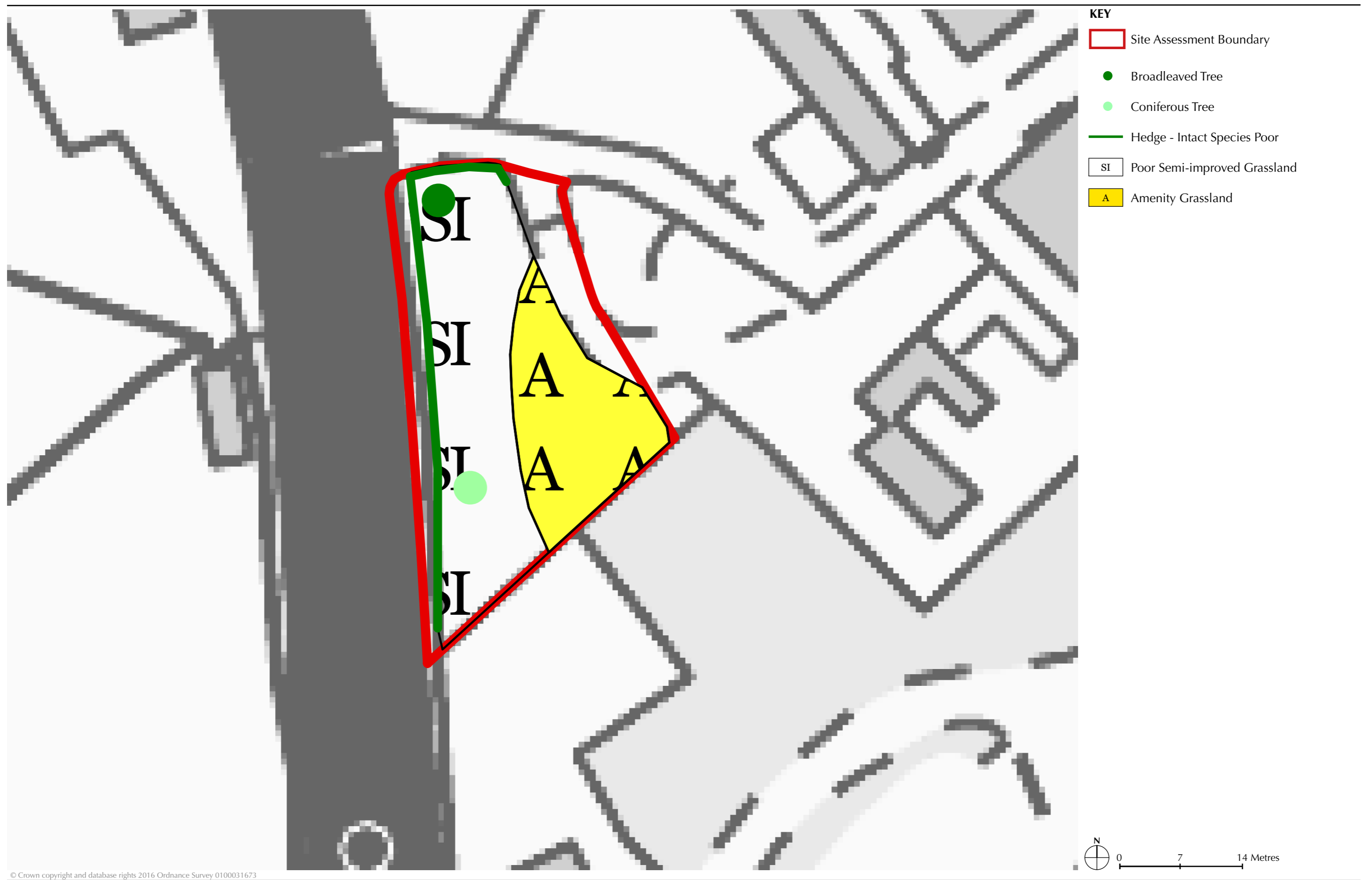
<b>Sussex Rare Species Inventory</b>	
<i>Erythromma viridulum</i>	Small red-eyed damselfly
<b>Notable Bird Inventory</b>	
<i>Corvus corax</i>	Raven
<i>Milvus milvus</i>	Red kite
<i>Phylloscopus sibilatrix</i>	Wood warbler
<i>Poecile Montana</i>	Willow tit
<b>Invasive Alien Species Inventory</b>	
<i>Allium triquetrum</i>	Three-cornered garlic
<i>Cotoneaster horizontalis</i>	Wall cotoneaster
<i>Crocsmia pottsii</i> x <i>aurea</i> = <i>C. x crocosmiiflora</i>	Montbretia
<i>Fallopia japonica</i>	Japanese Knotweed
<i>Gaultheria shallon</i>	Shallon
<i>Harmonia axyridis</i>	Harlequin Ladybird
<i>Impatiens glandulifera</i>	Indian balsam
<i>Prunus laurocerasus</i>	Cherry laurel
<i>Rhododendron ponticum</i>	Rhododendron
<b>Field Survey: Habitat Descriptions (See Figure 21/681)</b>	
<p><b>Amenity grassland</b> - Species poor sward comprising typical common and widespread species.</p> <p><b>Poor semi-improved grassland</b> – Includes a number of common grasses as well as creeping buttercup <i>Ranunculus repens</i>, wild carrot <i>Daucus carota</i>, fleabane <i>Pulicaria dysenterica</i>, ox eye daisy <i>Leucanthemum vulgare</i> and yarrow <i>Achillea millefolium</i> but also a prominent ruderal element, such as pendulous sedge <i>Carex pendula</i>, nettle, hogweed <i>Heracleum sphodyllium</i>, common mallow <i>Malva sylvestris</i>, wilowherbs <i>Epilobium</i> spp., hedge garlic <i>Alliaria petiolata</i>, nipplewort <i>Lapsana communis</i>, and sowthistles <i>Sonchus</i> spp..</p> <p><b>Trees</b> – Includes non-native cypress and a sycamore.</p> <p><b>Hedges</b> – Species poor non-native cherry laurel on the western boundary and yew on the northern boundary.</p>	
<b>Field Survey: Protected and Notable Species</b>	
No species considered notable for their nature conservation value recorded during the Phase I habitat field survey.	
<b>Field Survey: Invasive Non-native Species</b>	
Cherry laurel forms the hedge on the western boundary.	
<b>Assessment of Potential for Notable Species Presence</b>	
<p><b>Great crested newts</b> – There are no ponds within the Site. However, OS maps and aerial images indicate the presence of ponds approximately 130m to the south, near Holbrook House, and 160m to the south west, beyond the A267. Hedges and other areas of undisturbed vegetation represent suitable terrestrial habitat for great crested newts within the Site. However, the A267 would represent a significant barrier to dispersal from the south and south west.</p> <p><b>Reptiles</b> – Limited potential among taller grassland and ruderal.</p> <p><b>Breeding birds</b> – In hedge and trees.</p> <p><b>Dormice</b> – Low potential in hedges due to the species it comprises of, and limited habitat connectivity.</p>	

<b>Recommendations for Further Survey (and optimal survey timings)</b>
<p><b>Amphibian (including great crested newt)</b> – (March – June) of the pond to the south of the Site.  <b>Reptiles</b> – (May – June, September – October) in suitable habitat.</p>
<b>INDICATIVE ECOLOGICAL APPRAISAL</b>
<p><b>Low value</b> – Very small Site supporting species poor vegetation including significant component of non-native species.  The Sites habitats and features have low potential to support notable/protected species.</p>
<b>Impact Avoidance</b>
<p>In order to limit, as far as possible, potentially adverse effects of development including potential harm to the integrity of the wider green infrastructure network, effort should be made to avoid the more ecologically valuable parts of the Site by:</p> <ul style="list-style-type: none"> <li>• As far as possible and appropriate retaining and buffering habitats and features supporting notable/protected species, based on the results of more detailed surveys.</li> </ul>
<b>Outline Mitigation</b>
<p>Should development at this Site proceed, generic (standard) mitigation for impacts upon habitats and species is set out below. Further detailed or species-specific mitigation may be required dependent upon the outcome of the recommended protected habitat or species surveys.</p> <ul style="list-style-type: none"> <li>• Implementation of a Construction and environmental Management Plan (CEMP) to manage site-specific issues relating to the potential impacts of construction on ecological features of interest.</li> <li>• Timing of vegetation clearance works to avoid the bird breeding season (March – August inclusive).</li> <li>• Offset buffers to protect retained habitats (minimum 10m).</li> <li>• Use of protective fencing to define construction areas and protect retained habitats.</li> <li>• Avoidance of night-time working wherever possible. When not possible, use directional lighting to prevent lightshed into surrounding habitats.</li> <li>• Inclusion of mammal ladders or similar in any trenches left open overnight.</li> <li>• Sealing of pipework overnight, to prevent animals becoming trapped.</li> <li>• Defined and bunded areas for fuel storage and refuelling to prevent spillages and pollution incidents.</li> <li>• On-Site spill incident equipment, in the event of spillages of fuel or other materials. Specific measures will be required if any works are close to watercourses and/or waterbodies.</li> <li>• If great crested newts are found to be present in the pond to the south of the Site then measures should be put in place to prevent harming or killing them, including for example the erection of herptile fencing to exclude them from work areas, and possibly trapping and translocation to suitable receptor areas elsewhere.</li> <li>• If reptiles are found to be present, measures to prevent harm to them, including potentially translocation from the development Site to a suitable receptor site. Where feasible such receptor areas should be incorporated into the new development (for example in buffer strips beside retained hedges, as noted above).</li> </ul>

### Potential Enhancement Opportunities

Opportunities for enhancing, restoring and/or creating new habitats as an integral part of a Site's development that can also contribute to the District's wider ecological /green infrastructure network are identified below:

- Replace species poor non-native hedges on boundaries with hedges comprising appropriate native species.
- Habitat creation, ideally located adjacent to retained or adjoining habitat, for example on the Site's northern or western boundary, or to form habitat corridors or links. To include for example:
  - Wildlife pond(s), included for example as part of a SuDS scheme;
  - Species-rich grassland and associated features for supporting a variety of terrestrial invertebrates;
  - Scrub and trees; and
  - Creation of dead wood habitats and other habitat piles.
- Erection of bat boxes suitable for a range of bat species, on retained trees or incorporated into buildings where they will remain unlit.
- Erection of bird boxes suitable for a range of bird species on retained trees or incorporated into buildings.
- Incorporate features to SuDS scheme(s), such as the use of native wetland plant species, to enhance their value.



ECOLOGICAL ASSESSMENT	
<b>Settlement/Area:</b>	Heathfield
<b>Site Address:</b>	Land at Monkhurst Farm, Sandy Cross, Heathfield
<b>Site Reference Number:</b>	734/1210
Site Summary Description	
A large 13.6ha Site comprising a number of fields devoted to the cultivation of amenity turf. Also includes a network of species rich hedges, some of which include mature trees.	
ECOLOGICAL BASELINE	
Green Infrastructure Context (see Figure 21.1)	
The Site is located within a characteristic High Weald landscape of small to medium sized fields, including both grass and arable, set within a relatively extensive and intact hedgerow network which includes frequent trees. Woodland, including Ancient Woodland, is relatively plentiful, the majority of which are relatively large in size. The Site lies on the southern edge of Heathfield. To the north are some fields with hedges beyond which are residential areas of Heathfield and to the south is open country of fields with hedges and woodland. The Site adjoins the relatively large Sapperton Wood Ancient Woodland on its south eastern boundary.	
Desk Study : Designated Sites within 1km (See Figure 21.2)	Distance from Site
<ul style="list-style-type: none"> <li>The Site lies approximately 840m west of the nearest point of <b>Heathfield Park SSSI</b>. The Citation states: <i>"This Site is an example of an ancient Wealden Gill woodland formed by the vigorous downcutting of a stream into the Ashdown Sand series of the Hastings Beds. A number of 'Atlantic' plants, uncommon in the south-east, are present and the lichen flora is also notable ... The woodland is dominated by mature beech Fagus sylvatica with both pedunculate and sessile oak Quercus robur and Q. petraea, holly Ilex aquifolium and scattered yew Taxus baccata. In the north and east birch Betula spp. becomes frequent and the stream valleys contain willow Salix spp. and alder Alnus glutinosa ... Continuous woodland cover in this sheltered Gill provides a moist, mild microclimate and a number of plant species occur here which are otherwise restricted to western counties, including Cornish moneywort Sibthorpia europaea, hay-scented buckler-fern Dryopteris aemula and the liverwort Frullania tamarisci. The Site is also of county importance for lichens: a total of 76 species have been recorded here ... The lakes add to the value of the Site for dragonflies and birds."</i></li> <li>The Site lies approximately 250m north of the nearest point of <b>Sapperton Meadows SSSI</b>. The Citation states: <i>"The Site consists of a number of pastures and meadows separated by a well developed network of hedgerows, and bordered on the south-west by mixed woodland. The fields form what is one of the best examples of contrasting rich pastures and hay meadows in East Sussex which is still being managed by traditional techniques ... The fields ... vary widely in grazing pressure [which] result in a mosaic of plant communities. Overall the flora is extremely species-rich and diverse, particularly in broad-leaved species. Characteristic species present include dyer's greenweed Genista tinctoria, lesser spearwort Ranunculus flammula, fleabane Pulicaria dysenterica, and a variety of sedges. In general the grassland is dominated by common bent grass Agrostis capillaris, along with</i></li> </ul>	<ul style="list-style-type: none"> <li>840m East of the Site.</li> <li>250m South of the Site.</li> </ul>

<p>Yorkshire fog <i>Holcus lanatus</i>, bird's foot trefoil <i>Lotus corniculatus</i>, daisy <i>Bellis perennis</i>, self-heal <i>Prunella vulgaris</i>, red clover <i>Trifolium pratense</i>, and ribwort plantain <i>Plantago lanceolata</i>. The grazed fields are characterised by lesser knapweed <i>Centaurea nigra</i>, bird's foot trefoil, hairy hawkbit <i>Leontodon taraxacoides</i>, yellow rattle <i>Rhinanthus minor</i>, dyer's greenweed, fleabane, sharp-flowered rush <i>Juncus acutifolius</i>, common spotted orchid <i>Dactylorhiza fuchsii</i> and cat's ear <i>Hypochaeris radicata</i> ... Characteristic plants of the hay fields include Yorkshire fog, lesser knapweed and yellow-rattle, with common bent grass, sweet vernal grass <i>Anthoxanthum odoratum</i>, sneezewort <i>Achillea ptarmica</i>, and hairy hawkbit. Carnation sedge <i>Carex panicea</i>, glaucous sedge <i>C. flacca</i>, oval sedge <i>Carex ovalis</i> and lesser spearwort occur in flushed patches."</p>																																																			
Desk Study: BAP Priority Habitats within 1km	Distance from Site																																																		
<ul style="list-style-type: none"> <li>• Ancient &amp; semi-natural woodland – Ham Wood</li> <li>• Ancient &amp; semi-natural woodland – Monkhurst Farm Shaw</li> <li>• Ancient &amp; semi-natural woodland – Runtington / Crock-kiln / Geer's Woods</li> <li>• Ancient &amp; semi-natural woodland – Sapperton Wood</li> <li>• Ancient &amp; semi-natural woodland – Walnuts Farm Shaw</li> <li>• Ancient &amp; semi-natural woodland – Mill Wood</li> <li>• Ancient &amp; semi-natural woodland – Sapperton Manor Farm Shaw</li> <li>• Ancient &amp; semi-natural woodland – Heathfield Park</li> <li>• Lowland Meadows BAP priority habitat (part of Sapperton Meadows SSSI)</li> <li>• Wood Pasture &amp; Parkland BAP priority habitat (part of Heathfield Park SSSI)</li> </ul>	<ul style="list-style-type: none"> <li>• 240m East</li> <li>• 400m North East</li> <li>• 360m West</li> <li>• Adjacent South</li> <li>• 730m East</li> <li>• 880m South East</li> <li>• 760m South East</li> <li>• 700m East</li> <li>• 290m South</li> <li>• 970m East</li> </ul>																																																		
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<i>Hoplodrina blanda</i>	Rustic (moth)
<i>Lasiommata megera</i>	Wall
<i>Hydraecia micacea</i>	Rosy Rustic (moth)
<i>Limenitis camilla</i>	White admiral
<i>Lycia hirtaria</i>	Brindled Beauty (moth)
<i>Melanchra persicariae</i>	Dot moth (moth)
<i>Mesoligia literosa</i>	Rosy Minor (moth)
<i>Spilosoma lubricipeda</i>	White Ermine (moth)
<i>Spilosoma luteum</i>	Buff Ermine (moth)
<i>Tholera decimalis</i>	Feathered Gothic (moth)
<i>Timandra comae</i>	Blood-Vein (moth)
<i>Tyria jacobaeae</i>	Cinnabar (moth)
<i>Watsonalla binaria</i>	Oak Hook-tip (moth)
<i>Xanthia icteritia</i>	Sallow (moth)
<b>Sussex Rare Species Inventory</b>	
<i>Brachythemium mildeanum</i>	Sand Feather-moss
<i>Buxus sempervirens</i>	Box
<i>Calamotropha paludella</i>	Bulrush veneer (moth)
<i>Chloroclysta siterata</i>	Red-green Carpet (moth)
<i>Eilema sororcula</i>	Orange Footman (moth)
<i>Furcula bicuspis</i>	Alder Kitten (moth)
<i>Globia sparganii</i>	Webb's Wainscot (moth)
<i>Hadena compta</i>	Varied Coronet (moth)
<i>Mythimna l-album</i>	L-album Wainscot (moth)
<i>Parascotia fuliginaria</i>	Waved Black (moth)
<i>Selenia lunularia</i>	Lunar Thorn (moth)
<i>Tetheella fluctuosa</i>	Satin Lutestring (moth)
<i>Thera cupressata</i>	Cypress carpet (moth)
<b>Notable Bird Inventory</b>	
<i>Apus apus</i>	Swift
<i>Ardea cinerea</i>	Grey heron
<i>Delichon urbicum</i>	House martin
<i>Falco subbuteo</i>	Hobby
<i>Hirundo rustica</i>	Swallow
<i>Milvus milvus</i>	Red kite
<i>Poecile Montana</i>	Willow tit
<i>Streptopelia turtur</i>	Turtle dove
<i>Tyto alba</i>	Barn owl
<b>Invasive Alien Species Inventory</b>	
<i>Crocasmia pottsii</i> x <i>aurea</i> = <i>C. x crocosmiiflora</i>	Montbretia
<i>Fallopia japonica</i>	Japanese Knotweed
<i>Hyacinthoides non-scripta</i> x <i>hispanica</i> (= <i>H. x massartiana</i> )	Hybrid bluebell
<i>Impatiens glandulifera</i>	Indian balsam
<i>Prunus laurocerasus</i>	Cherry laurel
<i>Rhododendron ponticum</i>	Rhododendron
<i>Rosa rugosa</i>	Japanese rose
<b>Field Survey: Habitat Descriptions (See Figure 21/734)</b>	
<b>Amenity grassland and arable</b> – Cultivated for turf and comprising a short and homogenous sward in which perennial rye-grass <i>Lolium perenne</i> is the most abundant grass, although annual meadow grass <i>Poa annua</i> is frequent and Yorkshire fog <i>Holcus lanatus</i> and common bent <i>Agrostis capillaris</i> are	

occasional and locally abundant. Forb content is low and species poor, including a number of common and widespread species such as creeping buttercup *Ranunculus repens*, white clover *Trifolium repens*, greater plantain *Plantago major*, germander speedwell *Veronica chamaedrys* and dandelion *Taraxacum officinale* agg.. A field in the west of the Site has been recently sown with grasses.

**Hedges** – Species rich with hawthorn, blackthorn, hazel, holly, ash, hornbeam and willow. Some sections include trees, including especially mature oak.

**Trees** – there are a small number of trees outside the hedges, including poplars north of Theobald's Green Farm in the west of the Site and a mature oak in the most southerly field.

**Woodland** – A small part of a wooded bank is present on the western boundary of the Site, next to the B2203 Theobald's Green.

**Buildings** – The northern tip of the Site is a yard with bare hard standing and small areas of ruderal vegetation. A number of buildings are present, most of which appear to be barns or Portakabin type structures.

#### Field Survey: Protected and Notable Species

No species considered notable for their nature conservation value recorded during the Phase I habitat field survey.

#### Field Survey: Invasive Non-native Species

No invasive non-native species recorded within the Site.

#### Assessment of Potential for Protected and Notable Species (and optimal survey timings)

**Great crested newts** – There are no ponds within the Site. However, OS maps indicate the presence of ponds in woodland adjacent to the centre of the Site and approximately 150m to the east of the northern tip of the Site. Suitable terrestrial habitat for great crested newts in the Site is largely limited to hedges.

**Reptiles** – Very limited potential along boundaries.

**Breeding birds** – In hedges.

**Bats** – Trees and mature trees in particular, with features such as cracks and cavities, have potential to be used as roosts. Activity, including foraging and commuting, is likely throughout, but especially along hedges and woodland edges.

**Dormice** – high potential in hedges due to connectivity to hedges and especially woodland.

**Badgers** – potential for setts within the hedges and adjoining woodland, but with or without setts badgers may also use any part of the Site for foraging, though neither was recorded during the survey.

#### Recommendations for Further Survey

**Amphibian (including great crested newt)** – (March – June) of the ponds adjacent to and east of the Site

**Reptiles** – (May – June, September – October) in suitable habitat throughout the Site.

**Breeding birds** – (April – June) especially hedges and adjoining woodland.

**Bats** – (inspections: year round; activity surveys April – October) in the first instance inspection of trees to determine the scope for further survey and activity surveys.

**Dormice** – (April – November) in suitable habitat.

**Badgers** – (Year round but Spring / Autumn optimal) of whole Site and adjoining woodland.

#### INDICATIVE ECOLOGICAL APPRAISAL

**Low to Moderate value** – species poor grassland of low value but the hedges and mature trees are of moderate value.

The Sites location adjacent to Sapperton Wood Ancient Woodland increases its value and sensitivity.

The Sites habitats and features have moderate potential to support notable/protected species.

## Impact Avoidance

In order to limit, as far as possible, potentially adverse effects of development including potential harm to the integrity of the wider green infrastructure network, effort should be made to avoid the more ecologically valuable parts of the Site by:

- Retaining the hedges and mature trees and their features.
- Retaining and buffering the woodland and hedges on the western and northern boundaries.
- As far as possible and appropriate retaining and buffering habitats and features supporting notable/protected species, based on the results of more detailed surveys.

## Outline Mitigation

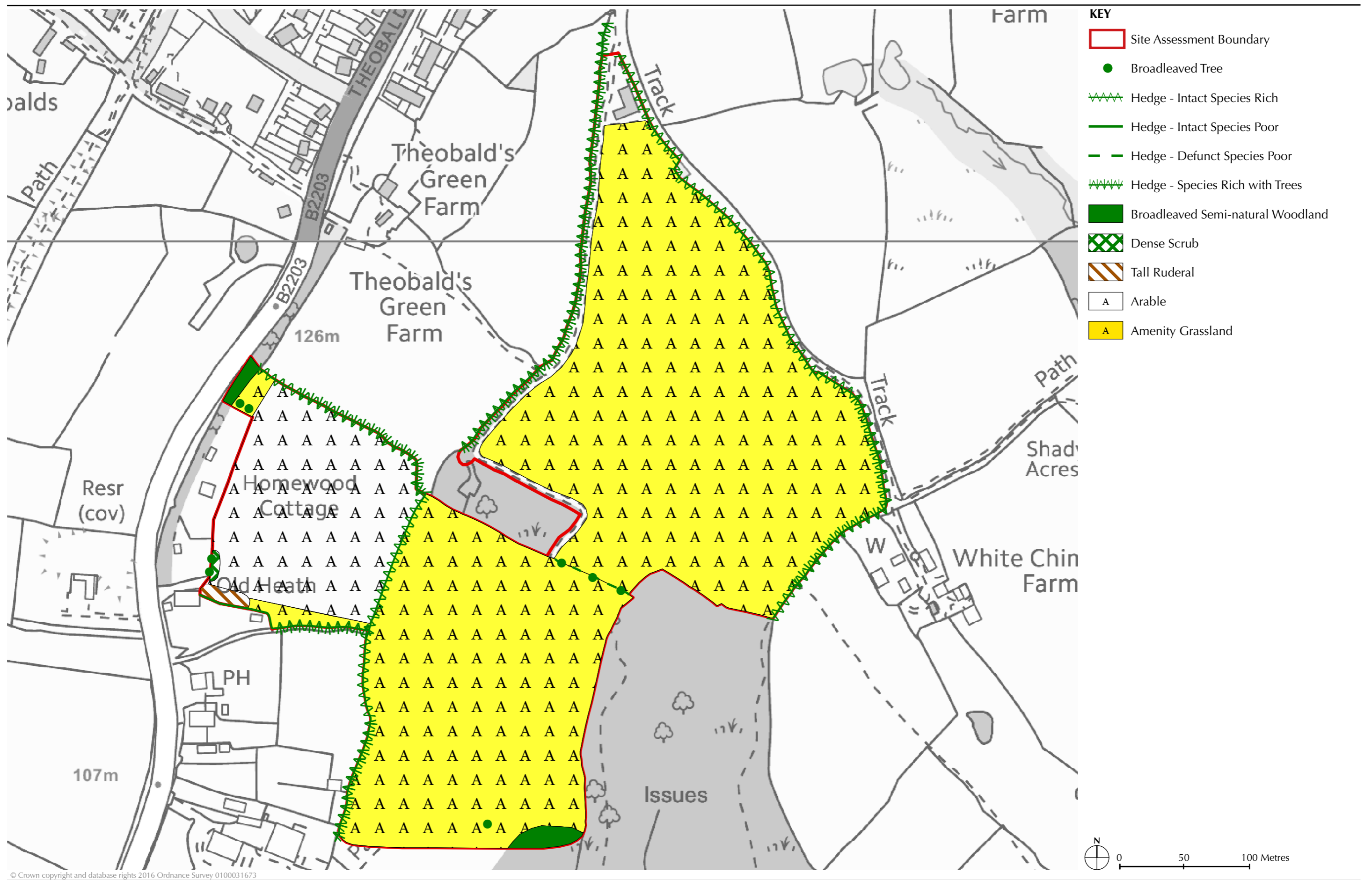
Should development at this Site proceed, generic (standard) mitigation for impacts upon habitats and species is set out below. Further detailed or species-specific mitigation may be required dependent upon the outcome of the recommended protected habitat or species surveys.

- Implementation of a Construction and Environmental Management Plan (CEMP) to manage site-specific issues relating to the potential impacts of construction on ecological features of interest.
- Timing of vegetation clearance works to avoid the bird breeding season (March – August inclusive).
- Offset buffers to protect retained habitats (minimum 10m).
- Use of protective fencing to define construction areas and protect retained habitats.
- Avoidance of night-time working wherever possible. When not possible, use directional lighting to prevent lightshed into surrounding habitats.
- Inclusion of mammal ladders or similar in any trenches left open overnight.
- Sealing of pipework overnight, to prevent animals becoming trapped.
- Defined and bunded areas for fuel storage and refuelling to prevent spillages and pollution incidents.
- On-Site spill incident equipment, in the event of spillages of fuel or other materials. Specific measures will be required if any works are close to watercourses and/or waterbodies.
- If great crested newts are found to be present in the ponds adjacent to or east of the Site then measures should be put in place to prevent harming or killing them, including for example the erection of herptile fencing to exclude them from work areas, and possibly trapping and translocation to suitable receptor areas elsewhere.
- If reptiles are found to be present, measures to prevent harm to them, including potentially translocation from the development Site to a suitable receptor site. Where feasible such receptor areas should be incorporated into the new development (for example in buffer strips beside retained hedges, as noted above).
- New development may need to incorporate bat roosts as alternative or replacement habitat if roosts are likely to be lost.
- Insofar as any proposed development of the Site allows, lighting design, particularly for the periphery of the Site should be minimised as far as possible. As a minimum, any lighting along Site boundaries that may potentially form important commuting corridors (e.g. hedgerows) or adjacent woodlands that may support bat roosts should make use of backboards and/or internal louvres to ensure light is directed into the Site and light spill into the adjacent areas of retained habitat is minimised.
- If dormice are found to be present the retention and appropriate buffering of hedges (as noted above).
- Development should avoid construction works within at least 30m of the nearest badger setts and seek to avoid prime foraging grounds identified through the badger survey and severance of commuting corridors within territories.

### Potential Enhancement Opportunities

Opportunities for enhancing, restoring and/or creating new habitats as an integral part of a Site's development that can also contribute to the District's wider ecological /green infrastructure network are identified below:

- Positively and appropriately manage retained habitats and features, including hedges and mature trees.
- Strengthen boundary vegetation by planting appropriate native species, for example by gapping up the hedge in the centre of the Site.
- Habitat creation, ideally located adjacent to retained or adjoining habitat, for example in field corners, or to form habitat corridors or links. To include for example:
  - Wildlife pond(s), included for example as part of a SuDS scheme;
  - Species-rich grassland and associated features for supporting a variety of terrestrial invertebrates;
  - Scrub and trees; and
  - Creation of dead wood habitats and other habitat piles.
- Erection of bat boxes suitable for a range of bat species, on retained trees or incorporated into buildings where they will remain unlit.
- Erection of bird boxes suitable for a range of bird species on retained trees or incorporated into buildings.
- Incorporate features to SuDS scheme(s), such as the use of native wetland plant species, to enhance their value.



ECOLOGICAL ASSESSMENT	
<b>Settlement/Area:</b>	Heathfield
<b>Site Address:</b>	The Old Half Moon, Burwash Road, Heathfield
<b>Site Reference Number:</b>	798/1210
Site Summary Description	
A 0.84ha Site comprising a rather species-poor grassland field with a very small area of woodland and trees as well as a species-rich hedge.	
ECOLOGICAL BASELINE	
Green Infrastructure Context (see Figure 21.1)	
<p>The Site is located within the broader High Weald landscape of small to medium sized fields, including both grassland and arable, set within a relatively extensive and intact hedgerow network which includes frequent trees. Woodland, including Ancient Woodland, is relatively plentiful and includes both large and small parcels. The Site lies on the north eastern edge of Heathfield, immediately to the south of Burwash Road. To the north there are some commercial and residential properties alongside Burwash Road but also open countryside comprising fields with hedges and areas of woodland. To the south and south east, beyond a house and garden lies Heathfield Park, which includes relatively extensive areas of Deciduous Woodland, including Ancient Woodland , and Wood Pasture and Parkland BAP Priority Habitats (see Desk Study: BAP Priority Habitats) . Part of this is also designated SSSI (see Desk Study: Designated Sites and <b>Figure 21.2</b>).</p>	
Desk Study: Designated Sites within 1km (see Figure 21.2)	Distance from Site
<ul style="list-style-type: none"> <li>The Site lies approximately 90m north to the nearest point of <b>Heathfield Park SSSI</b>. The Citation states: “This Site is an example of an ancient Wealden Gill woodland formed by the vigorous downcutting of a stream into the Ashdown Sand series of the Hastings Beds. A number of ‘Atlantic’ plants, uncommon in the south-east, are present and the lichen flora is also notable ... The woodland is dominated by mature beech <i>Fagus sylvatica</i> with both pedunculate and sessile oak <i>Quercus robur</i> and <i>Q. petraea</i>, holly <i>Ilex aquifolium</i> and scattered yew <i>Taxus baccata</i>. In the north and east birch <i>Betula</i> spp. becomes frequent and the stream valleys contain willow <i>Salix</i> spp. and alder <i>Alnus glutinosa</i> ... Continuous woodland cover in this sheltered Gill provides a moist, mild microclimate and a number of plant species occur here which are otherwise restricted to western counties, including Cornish moneywort <i>Sibthorpia europaea</i>, hay-scented buckler-fern <i>Dryopteris aemula</i> and the liverwort <i>Frullania tamarisci</i>. The Site is also of county importance for lichens: a total of 76 species have been recorded here ... The lakes add to the value of the Site for dragonflies and birds.”</li> </ul>	<ul style="list-style-type: none"> <li>90m South of the Site.</li> </ul>
Desk Study: BAP Priority Habitats within 1km	Distance from Site
<ul style="list-style-type: none"> <li>Ancient &amp; semi-natural woodland – Oaken Wood</li> <li>Ancient &amp; semi-natural woodland – Markly Wood ext</li> <li>Ancient &amp; semi-natural woodland – Heathfield Park</li> <li>Ancient &amp; semi-natural woodland – Black Wood</li> <li>Wood Pasture &amp; Parkland BAP priority habitat (part of Heathfield Park SSSI)</li> </ul>	<ul style="list-style-type: none"> <li>340m North</li> <li>730m North West</li> <li>Adjacent East &amp; South</li> <li>650m North East</li> <li>280m South East</li> </ul>

## Desk Study: Protected and Notable Species within 1km

### Sussex BAP Species

*Limenitis camilla*

White admiral

### Sussex Rare Species Inventory

*Buxus sempervirens*

Box

*Eleogiton fluitans*

Floating Club-rush

*Sibthorpia europaea*

Cornish Moneywort

### Notable Bird Inventory

*Ardea cinerea*

Grey heron

*Delichon urbicum*

House martin

*Tyto alba*

Barn owl

### Invasive Alien Species Inventory

*Allium triquetrum*

Three-cornered garlic

*Campylopus introflexus*

Heath Star Moss

*Centranthus ruber*

Red valerian

*Cotoneaster simonsii*

Himalayan cotoneaster

*Hyacinthoides non-scripta x hispanica*

(= *H. x massartiana*)

Hybrid bluebell

*Lamiastrum galeobdolon subsp. Argentatum*

Variegated yellow archangel

## Field Survey: Habitat Descriptions (see Figure 21/798)

**Poor semi-improved grassland** – The grassland has been cut at the time of survey and comprises a homogenous sward approximately 5-10cm in height. It appears to be rather species poor, though the cut sward and time of year may contribute to underestimating its richness. The dominant grasses are Yorkshire fog *Holcus lanatus* and common bent *Agrostis capillaris*, but cocksfoot *Dactylis glomerata*, red fescue *Festuca rubra* and perennial rye-grass *Lolium perenne* are also present. Forb cover is in the region of 30-40%, with the most frequent and abundant species being bird's foot trefoil *Lotus corniculatus*, common sorrel *Rumex acetosa*, ribwort plantain *Plantago lanceolata* and common knapweed *Centaurea nigra*. Other species include meadow buttercup *Ranunculus acris*, bugle *Ajuga reptans*, white clover *Trifolium repens*, meadow vetchling *Lathyrus pratensis* and germander speedwell *Veronica chamaedrys*.

**Woodland** – There is a very small area of woodland on the western boundary. This has a canopy of oak, birch, horse chestnut and sycamore, a shrub layer of holly, hazel, sycamore and the invasive non-native Rhododendron. The field layer appears rather species poor, with bramble, grasses, broad buckler fern *Dryopteris dilatata*, wood sage *Teucrium scorodonia* and marsh thistle *Cirsium plaustre*. However, it should be borne in mind that the survey was carried out at a less than ideal time to survey woodland field layers.

**Trees** – There are a number of trees, including hornbeam, along the drive on the western side of the Site, as well as a mature oak tree which stands in the field.

**Hedges** – There is a species rich hedge, with hazel, holly, hawthorn, on the northern boundary, and a species poor hedge beside the drive.

**Bracken and scrub** – There is a narrow strip of bracken and bramble on the eastern edge of the field, where it adjoins woodland.

<b>Field Survey: Protected and Notable Species</b>
No species considered notable for their nature conservation value recorded during the Phase I habitat field survey.
<b>Field Survey: Invasive Non-native Species</b>
No invasive non-native species recorded within the Site.
<b>Assessment of Potential for Protected and Notable Species</b>
<p><b>Great crested newts</b> – There are no ponds within the Site. However, OS maps indicate the presence of ponds to the north of the A265 Burwash Road, approximately 30m from the Site and beside Gibraltar Tower within Heathfield Park, approximately 420m to the south west. However, recent aerial images suggest the pond to the north may no longer exist and the A265 Burwash Road also represents a significant barrier to dispersal of great crested newts from the north. The pond to the south west is relatively distant from the Site and suitable terrestrial habitat appears widespread adjacent to it. The probability of great crested newts being present within the Site is therefore considered to be very low.</p> <p><b>Reptiles</b> – Very limited potential along boundaries.</p> <p><b>Breeding birds</b> – In woodland, trees, hedges and scrub.</p> <p><b>Bats</b> – Trees and mature trees in particular, with features such as cracks and cavities, for example those in the woodland, have potential to be used as roosts. Given the habitats and features present activity, including foraging and commuting, is likely throughout.</p> <p><b>Dormice</b> – Moderate potential in woodland and hedges given connectivity to extensive woodland in Heathfield Park to the south.</p> <p><b>Badgers</b> – Potential for setts within the woodland, scrub and hedgerow, but with or without setts badgers may also use any or all of the Site for foraging. However, neither setts nor foraging signs are recorded during the survey.</p>
<b>Recommendations for Further Survey (and optimal survey timings)</b>
<p><b>Amphibian (including great crested newt)</b> – (March – June) of the pond to the north of the Site.</p> <p><b>Reptiles</b> – (May – June, September – October) in suitable habitat.</p> <p><b>Bats</b> – (inspections: year round; activity surveys April – October) in the first instance inspection of trees to determine the scope for further survey and activity surveys.</p> <p><b>Dormice</b> – (April – November) in suitable habitat.</p> <p><b>Badgers</b> – (Year round but Spring / Autumn optimal) of whole Site and immediately adjoining woodland.</p>
<b>INDICATIVE ECOLOGICAL APPRAISAL</b>
<p><b>Moderate value</b> – small areas of moderately valuable habitat of which the woodland and species-rich hedge are probably the most valuable features. These are well connected to adjoining habitats, especially in Heathfield Park.</p> <p>The Sites adjacency to Heathfield Park, including Ancient Woodland and SSSI increases its value and sensitivity.</p> <p>The Sites habitats and features have moderate potential to support notable/protected species.</p>

## Impact Avoidance

In order to limit, as far as possible, potentially adverse effects of development including potential harm to the integrity of the wider green infrastructure network, effort should be made to avoid the more ecologically valuable parts of the Site by:

- Retaining the Ancient Woodland on the eastern boundary.
- Retaining and buffering the woodland and hedges on the western and northern boundaries.
- As far as possible and appropriate retaining and buffering habitats and features supporting notable/protected species, based on the results of more detailed surveys.

## Outline Mitigation

Should development at this Site proceed, generic (standard) mitigation for impacts upon habitats and species is set out below. Further detailed or species-specific mitigation may be required dependent upon the outcome of the recommended protected habitat or species surveys.

- Implementation of a Construction and Environmental Management Plan (CEMP) to manage site-specific issues relating to the potential impacts of construction on ecological features of interest.
- Timing of vegetation clearance works to avoid the bird breeding season (March – August inclusive).
- Offset buffers to protect retained habitats (minimum 10m).
- Use of protective fencing to define construction areas and protect retained habitats.
- Avoidance of night-time working wherever possible. When not possible, use directional lighting to prevent lightshed into surrounding habitats.
- Inclusion of mammal ladders or similar in any trenches left open overnight.
- Sealing of pipework overnight, to prevent animals becoming trapped.
- Defined and bunded areas for fuel storage and refuelling to prevent spillages and pollution incidents.
- On-Site spill incident equipment, in the event of spillages of fuel or other materials. Specific measures will be required if any works are close to watercourses and/or waterbodies.
- If reptiles are found to be present, measures to prevent harm to them, including potentially translocation from the development Site to a suitable receptor site. Where feasible such receptor areas should be incorporated into the new development (for example in buffer strips beside retained hedges, as noted above).
- New development may need to incorporate bat roosts as alternative or replacement habitat if roosts are likely to be lost.
- Insofar as any proposed development of the Site allows, lighting design, particularly for the periphery of the Site should be minimised as far as possible. As a minimum, any lighting along Site boundaries that may potentially form important commuting corridors (e.g. hedgerows) or adjacent woodlands that may support bat roosts should make use of backboards and/or internal louvres to ensure light is directed into the Site and light spill into the adjacent areas of retained habitat is minimised.
- If dormice are found to be present the retention and appropriate buffering of woodland and hedge (as noted above).
- Development should avoid construction works within at least 30m of the nearest badger setts and seek to avoid prime foraging grounds identified through the badger survey and severance of commuting corridors within territories.

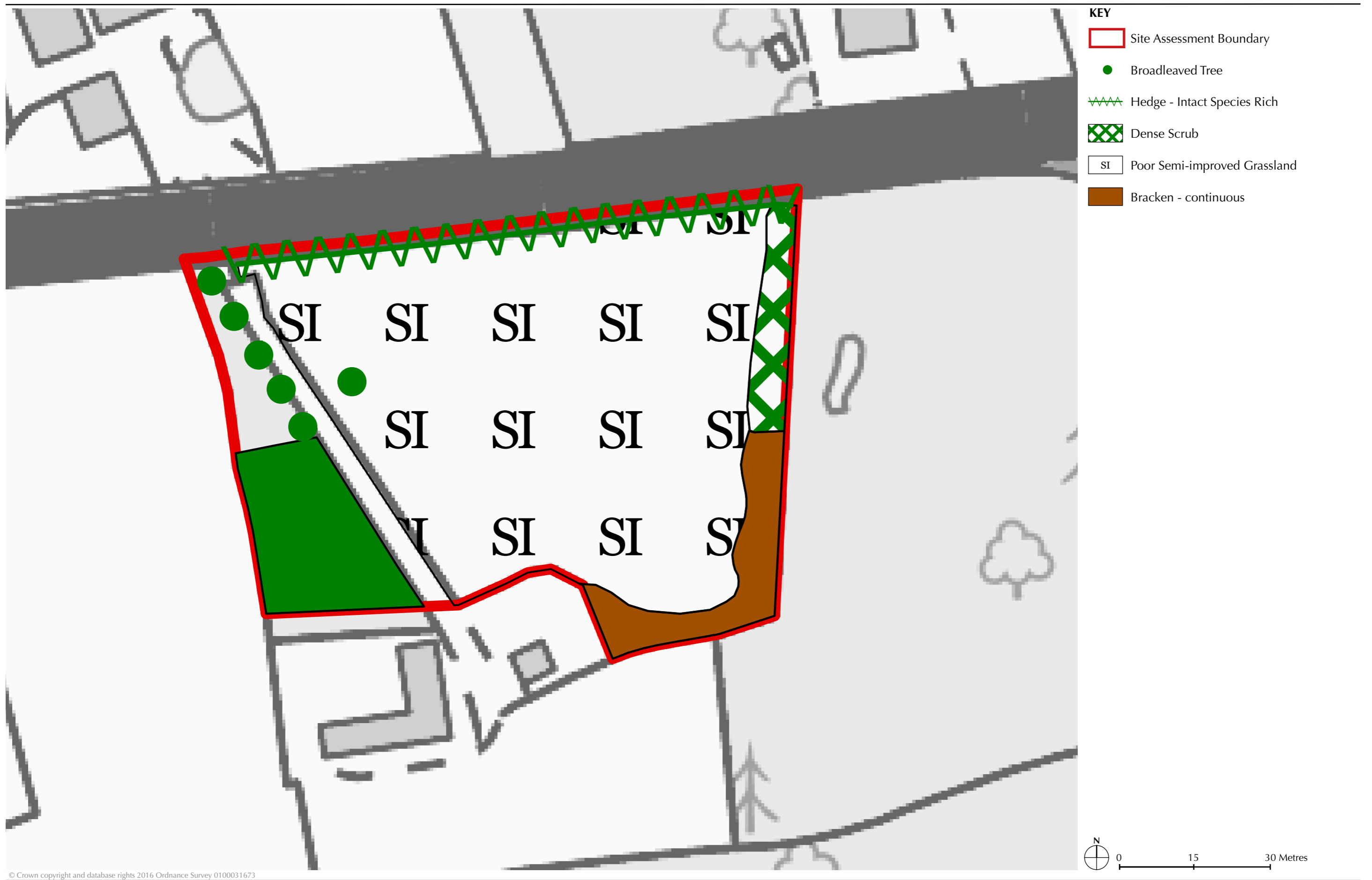
## Potential Enhancement Opportunities

Opportunities for enhancing, restoring and/or creating new habitats as an integral part of a Site's development that can also contribute to the District's wider ecological /green infrastructure network are identified below:

- Positively and appropriately manage retained habitats and features, including woodland and hedgerow.
- Planting of appropriate native species on the southern boundary, for example to form a hedge, to link habitats on the western and eastern boundaries.
- Habitat creation, ideally located adjacent to retained or adjoining habitat such as the woodlands and

hedgerows, or to form habitat corridors or links. To include for example:

- Wildlife pond(s), included for example as part of a SuDS scheme;
  - Species-rich grassland and associated features for supporting a variety of terrestrial invertebrates;
  - Scrub and trees; and
  - Creation of dead wood habitats and other habitat piles.
- Erection of bat boxes suitable for a range of bat species, on retained trees or incorporated into buildings where they will remain unlit.
  - Erection of bird boxes suitable for a range of bird species on retained trees or incorporated into buildings.
  - Incorporate features to SuDS scheme(s), such as the use of native wetland plant species, to enhance their value.



ECOLOGICAL ASSESSMENT	
<b>Settlement/Area:</b>	Heathfield
<b>Site Address:</b>	Collins Field, Burwash Road, Heathfield
<b>Site Reference Number:</b>	848/1210
Site Summary Description	
A 3.97ha Site comprising two species poor grassland fields with mostly species-rich hedges and mature trees.	
ECOLOGICAL BASELINE	
Green Infrastructure Context (see Figure 21.1)	
<p>The Site is located within the broader High Weald landscape of small to medium sized fields, including both grassland and arable, set within a relatively extensive and intact hedgerow network which includes frequent trees. Woodland, including Ancient Woodland, is relatively plentiful and includes both large and small parcels. The Site lies on the north eastern edge of Heathfield, immediately to the north of Burwash Road. To the east and west there are some commercial and residential properties alongside Burwash Road. To the north and south is open countryside comprising fields with hedges and areas of woodland. Heathfield Park, which includes relatively extensive areas of Deciduous Woodland, including Ancient Woodland, and Wood Pasture and Parkland BAP Priority Habitats (see Desk Study: BAP Priority Habitats), lies approximately 200m to the south west. Part of this is also designated SSSI (see Desk Study: Designated Sites and <b>Figure 21.2</b>).</p>	
Desk Study: Designated Sites within 1km (see Figure 21.2)	Distance from Site
<ul style="list-style-type: none"> <li>The Site lies approximately 200m north east of the nearest point of <b>Heathfield Park SSSI</b>. The Citation states: "This Site is an example of an ancient Wealden Gill woodland formed by the vigorous downcutting of a stream into the Ashdown Sand series of the Hastings Beds. A number of 'Atlantic' plants, uncommon in the south-east, are present and the lichen flora is also notable ... The woodland is dominated by mature beech <i>Fagus sylvatica</i> with both pedunculate and sessile oak <i>Quercus robur</i> and <i>Q. petraea</i>, holly <i>Ilex aquifolium</i> and scattered yew <i>Taxus baccata</i>. In the north and east birch <i>Betula</i> spp. becomes frequent and the stream valleys contain willow <i>Salix</i> spp. and alder <i>Alnus glutinosa</i> ... Continuous woodland cover in this sheltered Gill provides a moist, mild microclimate and a number of plant species occur here which are otherwise restricted to western counties, including Cornish moneywort <i>Sibthorpia europaea</i>, hay-scented buckler-fern <i>Dryopteris aemula</i> and the liverwort <i>Frullania tamarisci</i>. The Site is also of county importance for lichens: a total of 76 species have been recorded here ... The lakes add to the value of the Site for dragonflies and birds."</li> <li>The Site lies approximately 1km south of the nearest point of <b>Oaken and Furlong Woods LWS</b>. The Citation summary describes the Site as follows: "Ancient woodland with bank and ditch system, bordered by ancient green land and consisting of oak, sweet chestnut coppice and small-leaved lime coppice".</li> </ul>	<ul style="list-style-type: none"> <li>200m South</li> <li>1km South</li> </ul>
Desk Study: BAP Priority Habitats within 1km	Distance from Site
<ul style="list-style-type: none"> <li>Ancient &amp; semi-natural woodland – Black Wood</li> <li>Ancient &amp; semi-natural woodland – Oaken Wood</li> </ul>	<ul style="list-style-type: none"> <li>325m North</li> <li>350m North West</li> </ul>

<ul style="list-style-type: none"> <li>• Ancient &amp; semi-natural woodland – Markly Wood</li> <li>• Ancient &amp; semi-natural woodland – Heathfield Park (part of SSSI)</li> <li>• Ancient &amp; semi-natural woodland – Stores Wood</li> <li>• Ancient &amp; semi-natural woodland – Binglets / Milkhurst / Great Woods</li> <li>• Ancient &amp; semi-natural woodland – Coneyburrow Wood</li> <li>• Wood Pasture &amp; Parkland BAP priority habitat (part of Heathfield Park SSSI)</li> </ul>	<ul style="list-style-type: none"> <li>• 890m West</li> <li>• 200m South West</li> <li>• 670m South East</li> <li>• 860m South East</li> <li>• 320m NNE</li> <li>• 405m South</li> </ul>
<b>Desk Study: Protected and Notable Species within 1km</b>	
<p><b>Sussex BAP Species</b>  <i>Bufo bufo</i> Common toad</p> <p><b>Sussex Rare Spe860m South cies Inventory</b>  <i>Eleogiton fluitans</i> Floating Club-rush  <i>Sibthorpia europaea</i> Cornish Moneywort</p> <p><b>Notable Bird Inventory</b>  <i>Apus apus</i> Swift  <i>Hirundo rustica</i> Swallow</p> <p><b>Invasive Alien Species Inventory</b>  <i>Campylopus introflexus</i> Heath Star Moss  <i>Cotoneaster horizontalis</i> Wall cotoneaster  <i>Cotoneaster simonsii</i> Himalayan contoneaster  <i>Crocasmia pottsii</i> x <i>aurea</i> = <i>C. x crocosmiiflora</i> Montbretia  <i>Elodea nuttallii</i> Nuttall's Water-Weed  <i>Fallopia japonica</i> Japanese Knotweed  <i>Lamiastrum galeobdolon subsp. Argentatum</i> Variegated yellow archangel  <i>Petasites fragrans</i> Winter heliotrope  <i>Prunus laurocerasus</i> Cherry laurel  <i>Rhododendron ponticum</i> Rhododendron</p>	
<b>Field Survey: Habitat Descriptions (see Figure 21/848)</b>	
<p><b>Poor semi-improved grassland</b> – Two fields similar in species composition and structure. The sward is short and tightly (cattle) grazed. It is species poor, with Yorkshire fog <i>Holcus lanatus</i>, common bent <i>Agrostis capillaris</i> and perennial rye-grass <i>Lolium perenne</i> the dominant grasses, although annual meadow grass <i>Poa annua</i> is widespread. Forbs comprise a number of very common and widespread species, with creeping buttercup <i>Ranunculus repens</i>, greater plantain <i>Plantago major</i>, white clover <i>Trifolium repens</i>, dandelion <i>Taraxacum</i> agg. and daisy <i>Bellis perennis</i> all frequent. Other species include soft rush <i>Juncus effusus</i>, common mouse-ear <i>Cerastium fontanum</i>, self-heal <i>Prunella vulgaris</i>, ribwort plantain <i>Plantago lanceolata</i>, common sorrel <i>Rumex acetosa</i>, broadleaved dock <i>Rumex obtusifolius</i> and marsh and creeping thistles <i>Cirsium palustre</i> and <i>arvense</i>.</p> <p><b>Hedges</b> – Most of the hedges are species rich with hawthorn, holly, willow, birch, oak, ash, sycamore, rose and gorse. The hedge between the two fields includes mature trees, mostly oaks and beech. There are some short section of species poor hedge, comprised largely of non-native species, in the south east of the Site</p> <p><b>Trees and scrub</b> – On parts the western and southern boundaries there is patchy scrub and trees, including stands of bramble, bushes and young oak, ash and birch. Several small cypresses are present on the southern boundary. There are two mature oak trees in the southern field.</p>	
<b>Field Survey: Protected and Notable Species</b>	
No species considered notable for their nature conservation value recorded during the Phase I habitat field survey.	

### Field Survey: Invasive Non-native Species

No invasive non-native species recorded within the Site.

### Assessment of Potential for Protected and Notable Species

**Great crested newts** – There are no ponds within the Site. OS maps indicate the presence of a pond among woodland near Oaklands Farm, approximately 320m north of the Site. Given the distance to the pond, the presence of suitable terrestrial habitat for great crested newts adjacent to it, as well as the relative lack of such habitat within the Site (largely limited to some of the hedges), the probability of their being present is considered very low.

**Breeding birds** – In hedges, trees and scrub. The fields are of sufficient size to potentially be used by ground nesting species such as skylark, although the habitat is considered to be significantly less than ideal at present.

**Bats** – Trees and mature trees in particular, with features such as cracks and cavities, for example those in the woodland, have potential to be used as roosts. Given the habitats and features present activity, including foraging and commuting, is likely to be concentrated along hedgerows.

**Dormice** – Moderate potential in hedges. Quite well connected to wider network of hedges and woodland but structure within the Site is variable and not all is ideal.

**Badgers** – Potential for setts within the hedgerows and other boundary vegetation, but with or without setts badgers may also use any or all of the Site for foraging. However, neither setts nor foraging signs are recorded during the survey.

### Recommendations for Further Survey (and optimal survey timings)

**Bats** – (inspections: year round; activity surveys April – October) in the first instance inspection of trees to determine the scope for further survey.

**Dormice** – (April – November) in suitable habitat.

**Badgers** – (Year round but Spring / Autumn optimal) of whole site.

### INDICATIVE ECOLOGICAL APPRAISAL

**Low to Moderate value** – the grassland is species poor and low value but the hedges and mature trees, which form a part of a wider network, are of moderate value.  
The Sites habitats and features have moderate potential to support notable/protected species.

### Impact Avoidance

In order to limit, as far as possible, potentially adverse effects of development including potential harm to the integrity of the wider green infrastructure network, effort should be made to avoid the more ecologically valuable parts of the Site by:

- Retaining the mature trees and their features.
- As far as possible and appropriate retaining and buffering habitats and features supporting notable/protected species, based on the results of more detailed surveys.

### Outline Mitigation

Should development at this Site proceed, generic (standard) mitigation for impacts upon habitats and species is set out below. Further detailed or species-specific mitigation may be required dependent upon the outcome of the recommended protected habitat or species surveys.

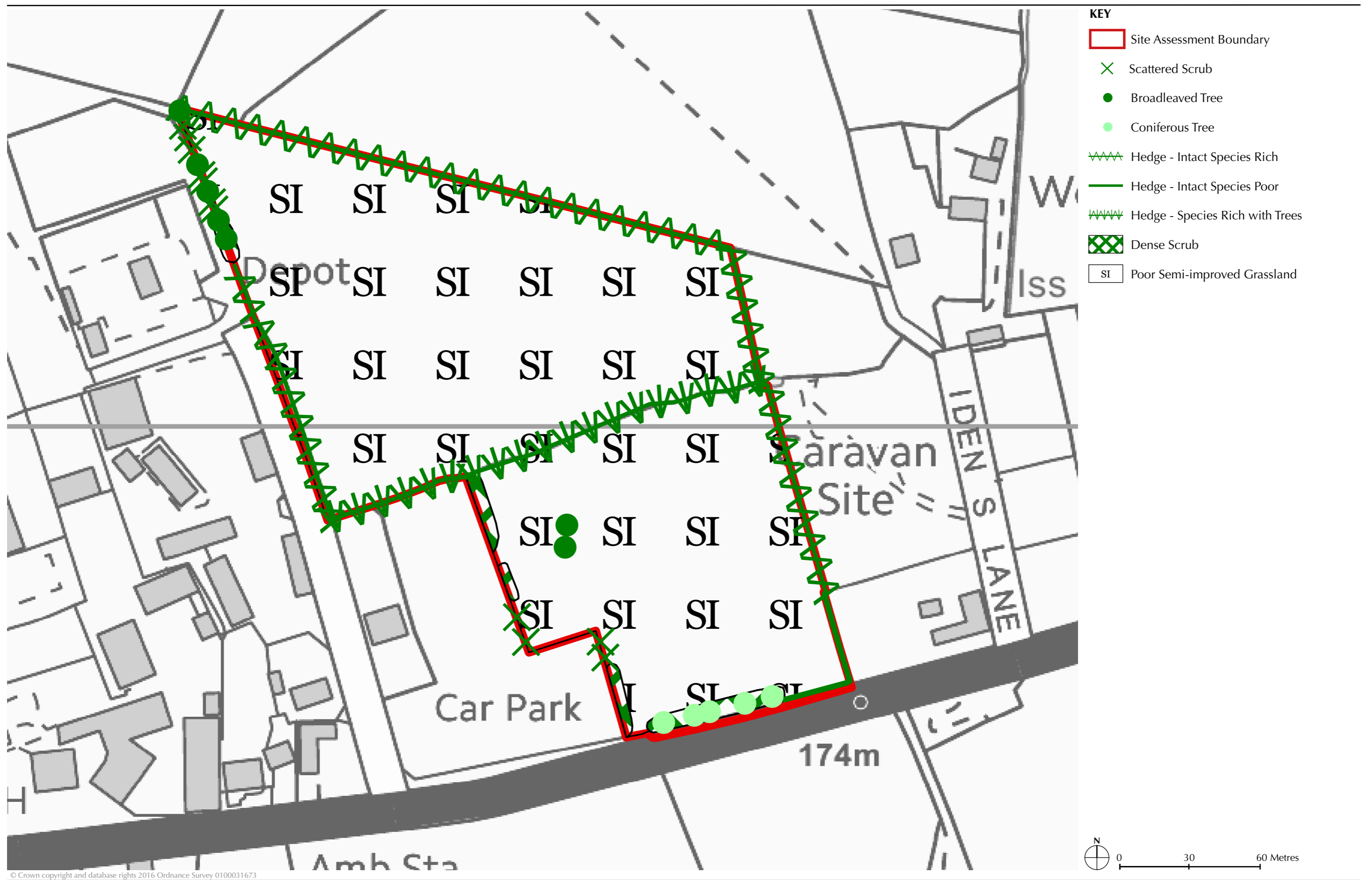
- Implementation of a Construction and Environmental Management Plan (CEMP) to manage site-specific issues relating to the potential impacts of construction on ecological features of interest.
- Timing of vegetation clearance works to avoid the bird breeding season (March – August inclusive).
- Offset buffers to protect retained habitats (minimum 10m).
- Use of protective fencing to define construction areas and protect retained habitats.

- Avoidance of night-time working wherever possible. When not possible, use directional lighting to prevent lightshed into surrounding habitats.
- Inclusion of mammal ladders or similar in any trenches left open overnight.
- Sealing of pipework overnight, to prevent animals becoming trapped.
- Defined and bunded areas for fuel storage and refuelling to prevent spillages and pollution incidents.
- On-Site spill incident equipment, in the event of spillages of fuel or other materials. Specific measures will be required if any works are close to watercourses and/or waterbodies.
- New development may need to incorporate bat roosts as alternative or replacement habitat if roosts are likely to be lost.
- Insofar as any proposed development of the Site allows, lighting design, particularly for the periphery of the Site should be minimised as far as possible. As a minimum, any lighting along Site boundaries that may potentially form important commuting corridors (e.g. hedgerows) or adjacent woodlands that may support bat roosts should make use of backboards and/or internal louvres to ensure light is directed into the Site and light spill into the adjacent areas of retained habitat is minimised.
- If dormice are found to be present the retention and appropriate buffering of hedges (as noted above).
- Development should avoid construction works within at least 30m of the nearest badger setts and seek to avoid prime foraging grounds identified through the badger survey and severance of commuting corridors within territories.

### **Potential Enhancement Opportunities**

Opportunities for enhancing, restoring and/or creating new habitats as an integral part of a Site's development that can also contribute to the District's wider ecological /green infrastructure network are identified below:

- Positively and appropriately manage retained habitats and features, hedgerows and mature trees.
- Planting of appropriate native species to strengthen boundary vegetation, for example on parts of the western, eastern and southern boundaries.
- Habitat creation, ideally located adjacent to retained or adjoining habitat, for example in field corners, or to form habitat corridors or links. To include for example:
  - Wildlife pond(s), included for example as part of a SuDS scheme;
  - Species-rich grassland and associated features for supporting a variety of terrestrial invertebrates;
  - Scrub and trees; and
  - Creation of dead wood habitats and other habitat piles.
- Erection of bat boxes suitable for a range of bat species, on retained trees or incorporated into buildings where they will remain unlit.
- Erection of bird boxes suitable for a range of bird species on retained trees or incorporated into buildings.
- Incorporate features to SuDS scheme(s), such as the use of native wetland plant species, to enhance their value.



ECOLOGICAL ASSESSMENT	
Settlement/Area:	Heathfield
Site Name:	The Yard, Burwash Road, Heathfield
Site Reference Number:	865/1210
Site Summary Description	
A very small 0.06ha Site comprising a yard, largely of bare ground, with buildings.	
ECOLOGICAL BASELINE	
Green Infrastructure Context (see Figure 21.1)	
<p>The Site is located within the broader High Weald landscape of small to medium sized fields, including both grassland and arable, set within a relatively extensive and intact hedgerow network which includes frequent trees. Woodland, including Ancient Woodland, is relatively plentiful and includes both large and small parcels. The Site lies on the north eastern edge of Heathfield, immediately to the north of Burwash Road. To the east and west there are some commercial and residential properties alongside Burwash Road. To the north east and south east is open countryside comprising fields with hedges and areas of woodland. Heathfield Park, which includes relatively extensive areas of Deciduous Woodland, including Ancient Woodland, and Wood Pasture and Parkland BAP Priority Habitats (see Desk Study: BAP Priority Habitats), lies approximately 150m to the south. Part of this is also designated SSSI (see Desk Study: Designated Sites and <b>Figure 21.2</b>).</p>	
Desk Study: Designated Sites within 1km (see Figure 21.2)	Distance from Site
<ul style="list-style-type: none"> <li>The Site lies approximately 150m north east of the nearest point of <b>Heathfield Park SSSI</b>. The Citation states: <i>"This Site is an example of an ancient Wealden Gill woodland formed by the vigorous downcutting of a stream into the Ashdown Sand series of the Hastings Beds. A number of 'Atlantic' plants, uncommon in the south-east, are present and the lichen flora is also notable ... The woodland is dominated by mature beech Fagus sylvatica with both pedunculate and sessile oak Quercus robur and Q. petraea, holly Ilex aquifolium and scattered yew Taxus baccata. In the north and east birch Betula spp. becomes frequent and the stream valleys contain willow Salix spp. and alder Alnus glutinosa ... Continuous woodland cover in this sheltered Gill provides a moist, mild microclimate and a number of plant species occur here which are otherwise restricted to western counties, including Cornish moneywort Sibthorpia europaea, hay-scented buckler-fern Dryopteris aemula and the liverwort Frullania tamarisci. The Site is also of county importance for lichens: a total of 76 species have been recorded here ... The lakes add to the value of the Site for dragonflies and birds."</i></li> </ul>	<ul style="list-style-type: none"> <li>150m South West</li> </ul>
Desk Study: BAP Priority Habitats within 1km	Distance from Site
<ul style="list-style-type: none"> <li>Ancient &amp; semi-natural woodland – Black Wood</li> <li>Ancient &amp; semi-natural woodland – Oaken Wood</li> <li>Ancient &amp; semi-natural woodland – Markly Wood</li> <li>Ancient &amp; semi-natural woodland – Heathfield Park (part of SSSI)</li> <li>Ancient &amp; semi-natural woodland – Stores Wood</li> <li>Ancient &amp; semi-natural woodland –Coneyburrow Wood</li> <li>Wood Pasture &amp; Parkland BAP priority habitat (part of Heathfield Park SSSI)</li> </ul>	<ul style="list-style-type: none"> <li>490m North</li> <li>510m North West</li> <li>980m West</li> <li>300m South West</li> <li>840m South East</li> <li>550m North East</li> <li>420m South</li> </ul>

## Desk Study: Protected and Notable Species within 1km

### Sussex BAP Species

*Bufo bufo*

Common toad

*Limnitis camilla*

White admiral

### Sussex Rare Species Inventory

*Buxus sempervirens*

Box

*Eleogiton fluitans*

Floating Club-rush

*Sibthorpia europaea*

Cornish Moneywort

### Notable Bird Inventory

*Apus apus*

Swift

*Ardea cinerea*

Grey heron

*Delichon urbicum*

House martin

*Hirundo rustica*

Swallow

*Tyto alba*

Barn owl

### Invasive Alien Species Inventory

*Campylopus introflexus*

Heath Star Moss

*Centranthus ruber*

Red valerian

*Cotoneaster horizontalis*

Wall cotoneaster

*Cotoneaster simonsii*

Himalayan cotoneaster

*Crocasmia pottsii* x *aurea* = *C. x crocosmiiflora*

Montbretia

*Hyacinthoides non-scripta* x *hispanica*

(= *H. x massartiana*)

Hybrid bluebell

*Petasites fragrans*

Winter heliotrope

*Prunus laurocerasus*

Cherry laurel

*Rhododendron ponticum*

Rhododendron

## Field Survey: Habitat Descriptions (see Figure 21/865)

**Ruderal and scrub** – Although largely bare there are very small amounts of common ruderal species and scrub, such as bramble. There appear to be some scrub and trees on or near the northern boundary although most of this appears to lie outside the Site.

**Buildings** – Comprises a barn or shed with pitched and tiled roof and a portakabin.

## Field Survey: Protected and Notable Species

No species considered notable for their nature conservation value recorded during the Phase I habitat field survey.

## Field Survey: Invasive Non-native Species

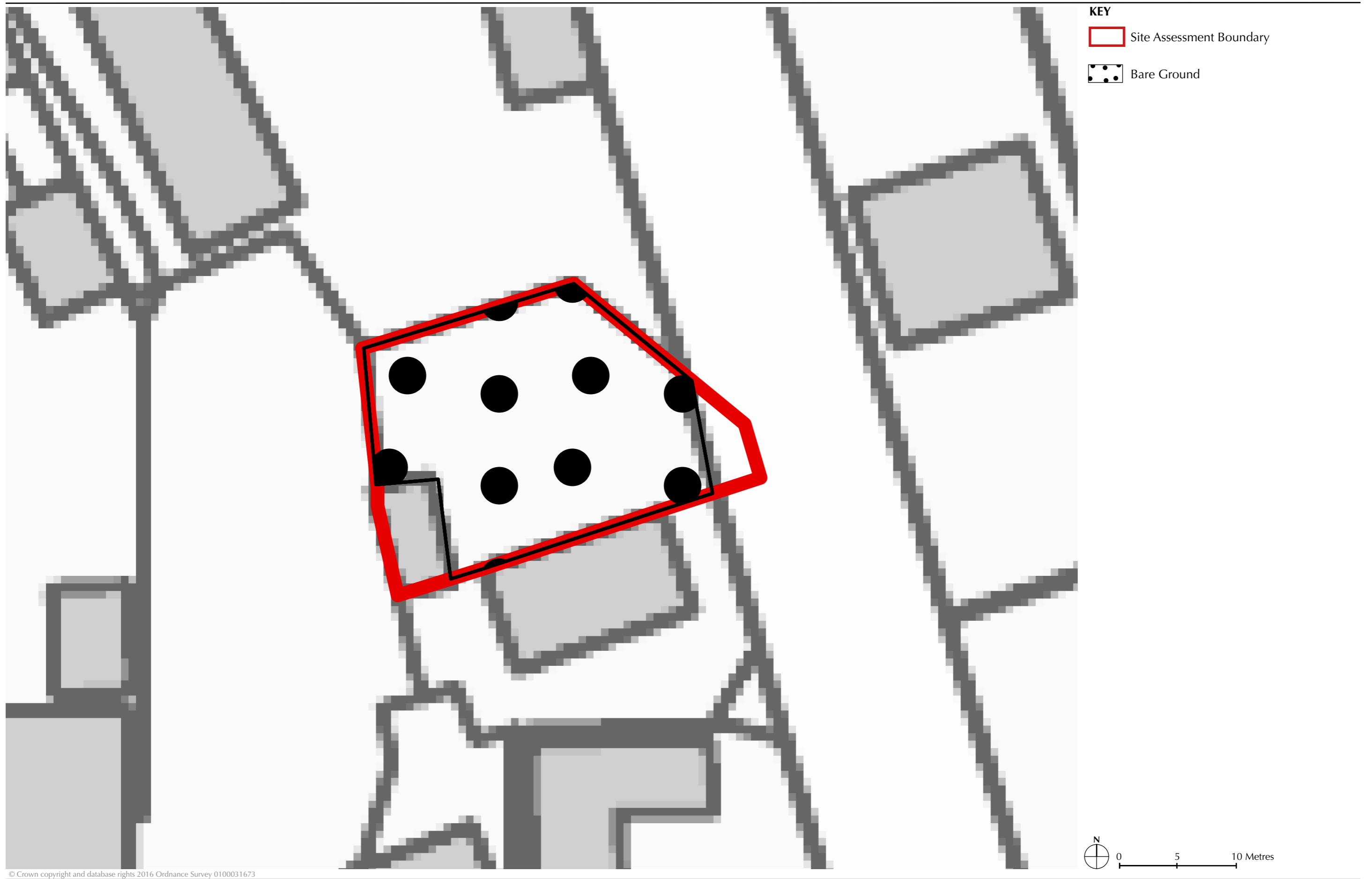
No invasive non-native species recorded within the Site.

## Assessment of Potential for Protected and Notable Species

There is little or no potential for notable/protected species to occur within the Site due to its size, location and lack of suitable habitats.

**Bats** – the buildings appear to have low potential to be used as roosts.

<b>Recommendations for Further Survey (and optimal survey timings)</b>
No further surveys recommended.
<b>INDICATIVE ECOLOGICAL APPRAISAL</b>
<p><b>Low value</b> – very small Site which is largely bare of vegetation and isolated from the wider ecological network. The Site has few or no features which offer potential to support notable/protected species.</p>
<b>Impact Avoidance</b>
No actions recommended due to lack of habitats and features within Site.
<b>Outline Mitigation</b>
<p>Should development at this Site proceed, generic (standard) mitigation for impacts upon habitats and species is set out below. Further detailed or species-specific mitigation may be required dependent upon the outcome of the recommended protected habitat or species surveys.</p> <ul style="list-style-type: none"> <li>• Implementation of a Construction and Environmental Management Plan (CEMP) to manage site-specific issues relating to the potential impacts of construction on ecological features of interest.</li> <li>• Timing of vegetation clearance works to avoid the bird breeding season (March – August inclusive).</li> <li>• Offset buffers to protect retained habitats (minimum 10m).</li> <li>• Use of protective fencing to define construction areas and protect retained habitats.</li> <li>• Avoidance of night-time working wherever possible. When not possible, use directional lighting to prevent lightshed into surrounding habitats.</li> <li>• Inclusion of mammal ladders or similar in any trenches left open overnight.</li> <li>• Sealing of pipework overnight, to prevent animals becoming trapped.</li> <li>• Defined and bunded areas for fuel storage and refuelling to prevent spillages and pollution incidents.</li> <li>• On-Site spill incident equipment, in the event of spillages of fuel or other materials. Specific measures will be required if any works are close to watercourses and/or waterbodies.</li> <li>• New development may need to incorporate bat roosts as alternative or replacement habitat if roosts are likely to be lost.</li> <li>• Insofar as any proposed development of the Site allows, lighting design, particularly for the periphery of the Site should be minimised as far as possible. As a minimum, any lighting along Site boundaries that may potentially form important commuting corridors (e.g. hedgerows) or adjacent woodlands that may support bat roosts should make use of backboards and/or internal louvres to ensure light is directed into the Site and light spill into the adjacent areas of retained habitat is minimised.</li> </ul>
<b>Potential Enhancement Opportunities</b>
<p>Opportunities for enhancing, restoring and/or creating new habitats as an integral part of a Site's development that can also contribute to the District's wider ecological /green infrastructure network are identified below:</p> <ul style="list-style-type: none"> <li>• Planting of appropriate native species on boundaries, for example to form hedges.</li> <li>• Erection of bat boxes suitable for a range of bat species, on retained trees or incorporated into buildings where they will remain unlit.</li> <li>• Erection of bird boxes suitable for a range of bird species on retained trees or incorporated into buildings.</li> <li>• Incorporate features to SuDS scheme(s), such as the use of native wetland plant species, to enhance their value.</li> </ul>



ECOLOGICAL ASSESSMENT	
<b>Settlement/Area:</b>	Heathfield
<b>Site Address:</b>	Heathfield Ambulance Station, Heathfield
<b>Site Reference Number:</b>	886/1210
Site Summary Description	
A very small 0.09ha Site comprising largely of buildings and hard standing but with a hedge and some developing trees and scrub on boundaries.	
ECOLOGICAL BASELINE	
Green Infrastructure Context (see Figure 21.1)	
<p>The Site is located within the broader High Weald landscape of small to medium sized fields, including both grassland and arable, set within a relatively extensive and intact hedgerow network which includes frequent trees. Woodland, including Ancient Woodland, is relatively plentiful and includes both large and small parcels. The Site lies on the north eastern edge of Heathfield, immediately to the north of Burwash Road. To the east and west there are some commercial and residential properties alongside Burwash Road. To the north east and south east is open countryside comprising fields with hedges and areas of woodland. Heathfield Park, which includes relatively extensive areas of Deciduous Woodland, including Ancient Woodland, and Wood Pasture and Parkland BAP Priority Habitats (see Desk Study: BAP Priority Habitats), lies approximately 150m to the south. Part of this is also designated SSSI (see Desk Study: Designated Sites and <b>Figure 21.2</b>).</p>	
Desk Study: Designated Sites within 1km (see Figure 21.2)	Distance from Site
<ul style="list-style-type: none"> <li>The Site lies approximately 150m north east of the nearest point of <b>Heathfield Park SSSI</b>. The Citation states: <i>"This Site is an example of an ancient Wealden Gill woodland formed by the vigorous downcutting of a stream into the Ashdown Sand series of the Hastings Beds. A number of 'Atlantic' plants, uncommon in the south-east, are present and the lichen flora is also notable ... The woodland is dominated by mature beech Fagus sylvatica with both pedunculate and sessile oak Quercus robur and Q. petraea, holly Ilex aquifolium and scattered yew Taxus baccata. In the north and east birch Betula spp. becomes frequent and the stream valleys contain willow Salix spp. and alder Alnus glutinosa ... Continuous woodland cover in this sheltered Gill provides a moist, mild microclimate and a number of plant species occur here which are otherwise restricted to western counties, including Cornish moneywort Sibthorpia europaea, hay-scented buckler-fern Dryopteris aemula and the liverwort Frullania tamarisci. The Site is also of county importance for lichens: a total of 76 species have been recorded here ... The lakes add to the value of the Site for dragonflies and birds."</i></li> </ul>	<ul style="list-style-type: none"> <li>150m South West</li> </ul>
Desk Study: BAP Priority Habitats within 1km	Distance from Site
<ul style="list-style-type: none"> <li>Ancient &amp; semi-natural woodland – Black Wood</li> <li>Ancient &amp; semi-natural woodland – Oaken Wood</li> <li>Ancient &amp; semi-natural woodland – Markly Wood</li> <li>Ancient &amp; semi-natural woodland – Heathfield Park (part of SSSI)</li> <li>Ancient &amp; semi-natural woodland – Stores Wood</li> </ul>	<ul style="list-style-type: none"> <li>490m North</li> <li>510m North West</li> <li>980m West</li> <li>300m South West</li> <li>840m South East</li> </ul>

<ul style="list-style-type: none"> <li>• Ancient &amp; semi-natural woodland –Coneyburrow Wood</li> <li>• Wood Pasture &amp; Parkland BAP priority habitat (part of Heathfield Park SSSI)</li> </ul>		<ul style="list-style-type: none"> <li>• 550m North East</li> <li>• 420m South</li> </ul>
<b>Desk Study: Protected and Notable Species within 1km</b>		
<b>Sussex BAP Species</b> <i>Bufo bufo</i> Common toad <i>Limenitis camilla</i> White admiral		
<b>Sussex Rare Species Inventory</b> <i>Buxus sempervirens</i> Box <i>Eleogiton fluitans</i> Floating Club-rush <i>Sibthorpia europaea</i> Cornish Moneywort		
<b>Notable Bird Inventory</b> <i>Apus apus</i> Swift <i>Ardea cinerea</i> Grey heron <i>Delichon urbicum</i> House martin <i>Hirundo rustica</i> Swallow <i>Tyto alba</i> Barn owl		
<b>Invasive Alien Species Inventory</b> <i>Campylopus introflexus</i> Heath Star Moss <i>Centranthus ruber</i> Red valerian <i>Cotoneaster horizontalis</i> Wall cotoneaster <i>Cotoneaster simonsii</i> Himalayan cotoneaster <i>Crocsmia pottsii</i> x <i>aurea</i> = <i>C. x crocosmiiflora</i> Montbretia <i>Hyacinthoides non-scripta</i> x <i>hispanica</i> (= <i>H. x massartiana</i> ) Hybrid bluebell <i>Petasites fragrans</i> Winter heliotrope <i>Prunus laurocerasus</i> Cherry laurel <i>Rhododendron ponticum</i> Rhododendron		
<b>Field Survey: Habitat Descriptions (see Figure 21/886)</b>		
<b>Trees and scrub</b> – On the northern boundary including developing sycamores. <b>Hedges</b> – On the southern and part of the eastern boundary. The sections on the eastern side are species rich with holly, hornbeam, wild privet, hawthorn, ash and sycamore. The rest of the hedge on the southern boundary is species poor and dominated by hawthorn with some sycamore. <b>Buildings</b> – Includes both flat-roofed and modern pitched and tiled.		
<b>Field Survey: Protected and Notable Species</b>		
No species considered notable for their nature conservation value recorded during the Phase I habitat field survey.		
<b>Field Survey: Invasive Non-native Species</b>		
No invasive non-native species recorded within the Site.		
<b>Assessment of Potential for Protected and Notable Species</b>		
<b>Breeding birds</b> – in hedges, trees and scrub. <b>Bats</b> – the buildings appear to have low potential to be used as roosts.		

### Recommendations for Further Survey (and optimal survey timings)

No further surveys recommended.

### INDICATIVE ECOLOGICAL APPRAISAL

**Low** - a very small Site with few features of value and is isolated from the wider ecological network. The Site has few or no features which offer potential to support notable/protected species.

### Impact Avoidance

In order to limit, as far as possible, potentially adverse effects of development including potential harm to the integrity of the wider green infrastructure network, effort should be made to avoid the more ecologically valuable parts of the Site by:

- Retaining the hedges.

### Outline Mitigation

Should development at this Site proceed, generic (standard) mitigation for impacts upon habitats and species is set out below. Further detailed or species-specific mitigation may be required dependent upon the outcome of the recommended protected habitat or species surveys.

- Implementation of a Construction and Environmental Management Plan (CEMP) to manage site-specific issues relating to the potential impacts of construction on ecological features of interest.
- Timing of vegetation clearance works to avoid the bird breeding season (March – August inclusive).
- Offset buffers to protect retained habitats (minimum 10m).
- Use of protective fencing to define construction areas and protect retained habitats.
- Avoidance of night-time working wherever possible. When not possible, use directional lighting to prevent lightshed into surrounding habitats.
- Inclusion of mammal ladders or similar in any trenches left open overnight.
- Sealing of pipework overnight, to prevent animals becoming trapped.
- Defined and bunded areas for fuel storage and refuelling to prevent spillages and pollution incidents;
- On-Site spill incident equipment, in the event of spillages of fuel or other materials. Specific measures will be required if any works are close to watercourses and/or waterbodies.
- New development may need to incorporate bat roosts as alternative or replacement habitat if roosts are likely to be lost.
- Insofar as any proposed development of the Site allows, lighting design, particularly for the periphery of the Site should be minimised as far as possible. As a minimum, any lighting along Site boundaries that may potentially form important commuting corridors (e.g. hedgerows) or adjacent woodlands that may support bat roosts should make use of backboards and/or internal louvres to ensure light is directed into the Site and light spill into the adjacent areas of retained habitat is minimised.

### Potential Enhancement Opportunities

Opportunities for enhancing, restoring and/or creating new habitats as an integral part of a Site's development that can also contribute to the District's wider ecological /green infrastructure network are identified below:

- Planting of hedges using appropriate native species on the western and northern boundaries.
- Erection of bat boxes suitable for a range of bat species, on retained trees or incorporated into buildings where they will remain unlit.
- Erection of bird boxes suitable for a range of bird species on retained trees or incorporated into buildings.
- Incorporate features to SuDS scheme(s), such as the use of native wetland plant species, to enhance their value.



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