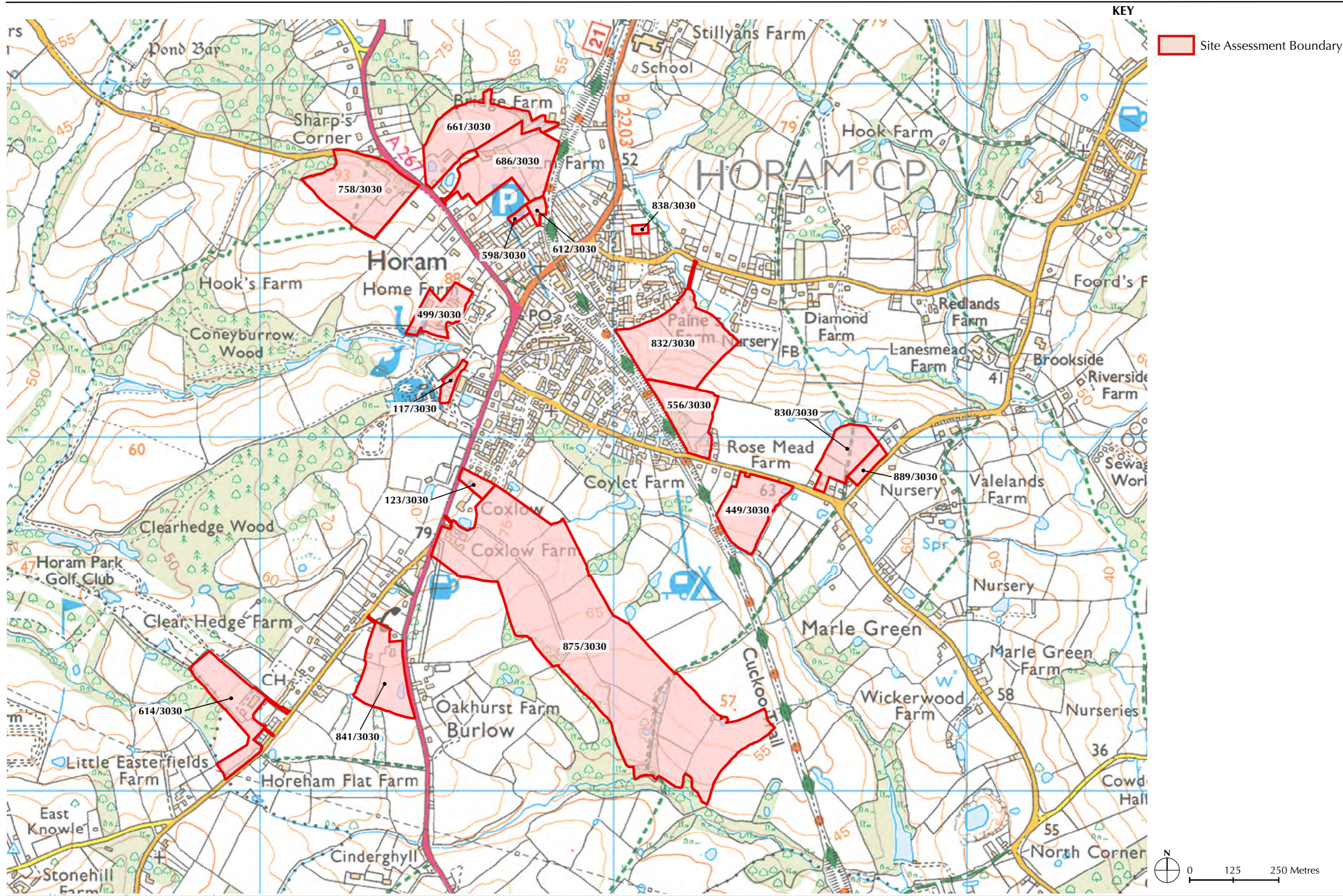
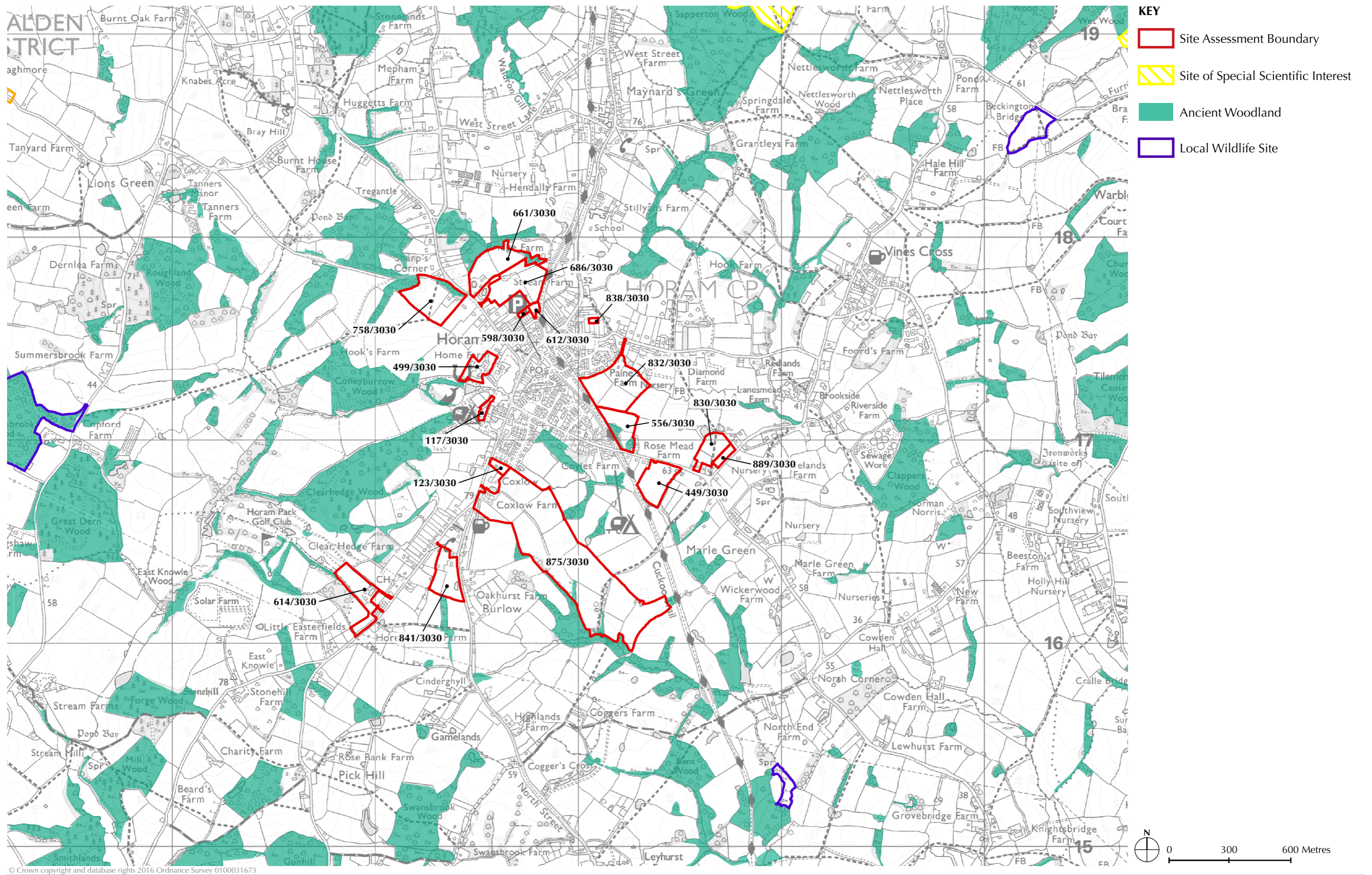


21.0 HORAM SITES





ECOLOGICAL ASSESSMENT											
Area:	Horam										
Site Name:	Manor Farm Bungalow Site, Horam										
Site Reference Number:	117/3030										
Site Summary Description											
<p>A 0.35ha Site comprising a house and garden and an area with dense scrub, a very small wooded area, mature trees and tall unmanaged grassland and ruderal.</p> <p>***It wasn't possible to access the main garden area as the side gate was padlocked. The garden was therefore only viewed through the gate***</p>											
ECOLOGICAL BASELINE											
Green Infrastructure Context (see Figure 24.1)											
<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. There are also a relatively large number of ponds in the Horam area. The Site lies on the western edge of Horam, as part of the Manor Farm complex. Immediately to the east is a development site, beyond which are further residential areas of Horam. To the west, there is a camping and caravanning site, fishing ponds and the buildings of Manor Farm and then open country of fields with hedges and woodland.</p>											
Desk Study : Designated Sites within 1km (See Figure 24.2)	Distance from Site										
<ul style="list-style-type: none"> • None 											
Desk Study: BAP Priority Habitats within 1km	Distance from Site										
<ul style="list-style-type: none"> • Ancient & semi-natural woodland – Bridge Farm Shaw • Ancient & semi-natural woodland – Furnace Wood • Ancient & semi-natural woodland – Sharps Corner Shaw • Ancient & semi-natural woodland – Stumlet Wood • Ancient & semi-natural woodland – Coneyburrow Wood • Ancient & semi-natural woodland – Clearhedge Wood • Ancient & semi-natural woodland – Horeham Flat Farm Shaw • Ancient & semi-natural woodland – Cogger's Shaw • Ancient & semi-natural woodland – Coylet Farm Shaw 3 • Ancient & semi-natural woodland – Coylet Farm Shaw • Ancient & semi-natural woodland – Toll Wood • Ancient & semi-natural woodland – Long Shaw • Ancient & semi-natural woodland – Thunderly Wood 	<ul style="list-style-type: none"> • 625m North • 775m North West • 690m North West • 965m North West • 100m West • 150m South West • 880m South • 820m SSE • 750m South East • 600m South East • 300m East • 610m East • 870m North East 										
Desk Study: Protected and Notable Species within 1km											
<p>Protected Species</p> <table> <tbody> <tr> <td><i>Anguis fragilis</i></td> <td>Slow worm</td> </tr> <tr> <td><i>Eptesicus serotinus</i></td> <td>Serotine bat</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> </tbody> </table>		<i>Anguis fragilis</i>	Slow worm	<i>Eptesicus serotinus</i>	Serotine bat	<i>Muscardinus avellanarius</i>	Hazel dormouse	<i>Myotis nattereri</i>	Natterer's bat	<i>Natrix natrix</i>	Grass snake
<i>Anguis fragilis</i>	Slow worm										
<i>Eptesicus serotinus</i>	Serotine bat										
<i>Muscardinus avellanarius</i>	Hazel dormouse										
<i>Myotis nattereri</i>	Natterer's bat										
<i>Natrix natrix</i>	Grass snake										

<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>Plecotus</i> sp.	Long-eared bat sp.
<i>Triturus cristatus</i>	Great crested newt
Sussex BAP Species	
<i>Bufo bufo</i>	Common toad
Notable Bird Inventory	
<i>Delichon urbicum</i>	House martin
<i>Hirundo rustica</i>	Swallow
<i>Pandion haliaetus</i>	Osprey
Invasive Alien Species Inventory	
<i>Centranthus ruber</i>	Red valerian
<i>Cotoneaster simonsii</i>	Himalayan cotoneaster
<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>Impatiens glandulifera</i>	Indian balsam
<i>Mustela vison</i>	American mink
<i>Petasites fragrans</i>	Winter heliotrope
<i>Prunus laurocerasus</i>	Cherry laurel
<i>Rhododendron ponticum</i>	Rhododendron
Field Survey: Habitat Descriptions (See Figure 24/117)	
<p>Northern Area – Includes an area of concrete hard standing bordered by tall ruderal, a species poor privet hedge and mainly non-native trees, including conifers, horse chestnut but also beech. There is also a flat-roofed corrugated tin hut.</p> <p>House and garden – Appears to comprise a mosaic of planted beds and borders, hedges and unmanaged lawn as well as areas of scrub and tall ruderal. There is a species poor hedge of beech and cypress on its north western boundary. The house is single-storey with a pitched and tiled roof.</p> <p>Southern Area – Includes a very small wooded area, mature trees and dense scrub around an area of tall unmanaged grassland and tall ruderal, within which there are piles of garden waste and rubble etc.. The small wooded area includes mature ash and hornbeam as well as beech, field maple and oak. The shrub layer includes hawthorn, blackthorn, hazel, holly, yew and cherry laurel. The field layer appears species poor and dominated by bramble and ivy. In the north, on the boundary with the garden, are two mature oak trees. The western side is dominated by dense scrub, comprising bramble and hazel, holly, hawthorn and elder and a small number of trees.</p> <p>The open grassy and ruderal area includes Yorkshire fog <i>Holcus lanatus</i>, false oat grass <i>Arrhenatherum elatius</i>, Timothy <i>Phleum pratense</i>, cocksfoot <i>Dactylis glomerata</i>, pendulous sedge <i>Carex pendula</i>, creeping buttercup <i>Ranunculus repens</i>, nettle, broadleaved dock <i>Rumex obtusifolius</i>, hedge bindweed <i>Calystegia sepium</i>, willowherbs <i>Epilobium</i> spp., fleabane <i>Pulicaria dysenterica</i> and creeping thistle <i>Cirsium arvense</i>.</p>	
Field Survey: Notable 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

Cherry laurel – in wooded area in south of Site.

Assessment of Potential for Notable Species

Great crested newts – There are no ponds within the Site. However, the survey and OS maps indicate the presence of several ponds within 500m. These include a small, very heavily shaded pond, which contains very little water at the time of the survey, immediately adjacent to the Site, as well as several fishing ponds from 40m to the north west, to the north of the Recreation Ground (30m east), several within Coneyburrow Wood (from 280m west) and to the north of the A267 Little London Road (250m north). Much of the Site, including for example, unmanaged grassland, tall ruderal, scrub and spoil, rubble and log piles, represent suitable terrestrial habitat for great crested newts.

Reptiles – Potential throughout site

Breeding birds – In hedges, trees and scrub etc.

Bats – Trees and mature trees in particular, with features such as cracks and cavities, for example including many within the woodland and also within the garden and hedges, have potential to be used as roosts. The house may also have potential for roosts. Activity, including foraging and commuting, is likely throughout but especially around trees and scrub.

Dormice – Low potential in hedges and scrub due to the poor structure of the habitat and very limited habitat connectivity.

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

Recommendations for Further Survey

Amphibian (including great crested newt) – (March – June) of the ponds within 500m of the Site, targeting especially those with greater suitability for great crested newts and those closest to 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

Low value – comprising largely of species poor vegetation including a large component of non-native species. However, the small wooded area and mature trees are of 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 wooded area 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.

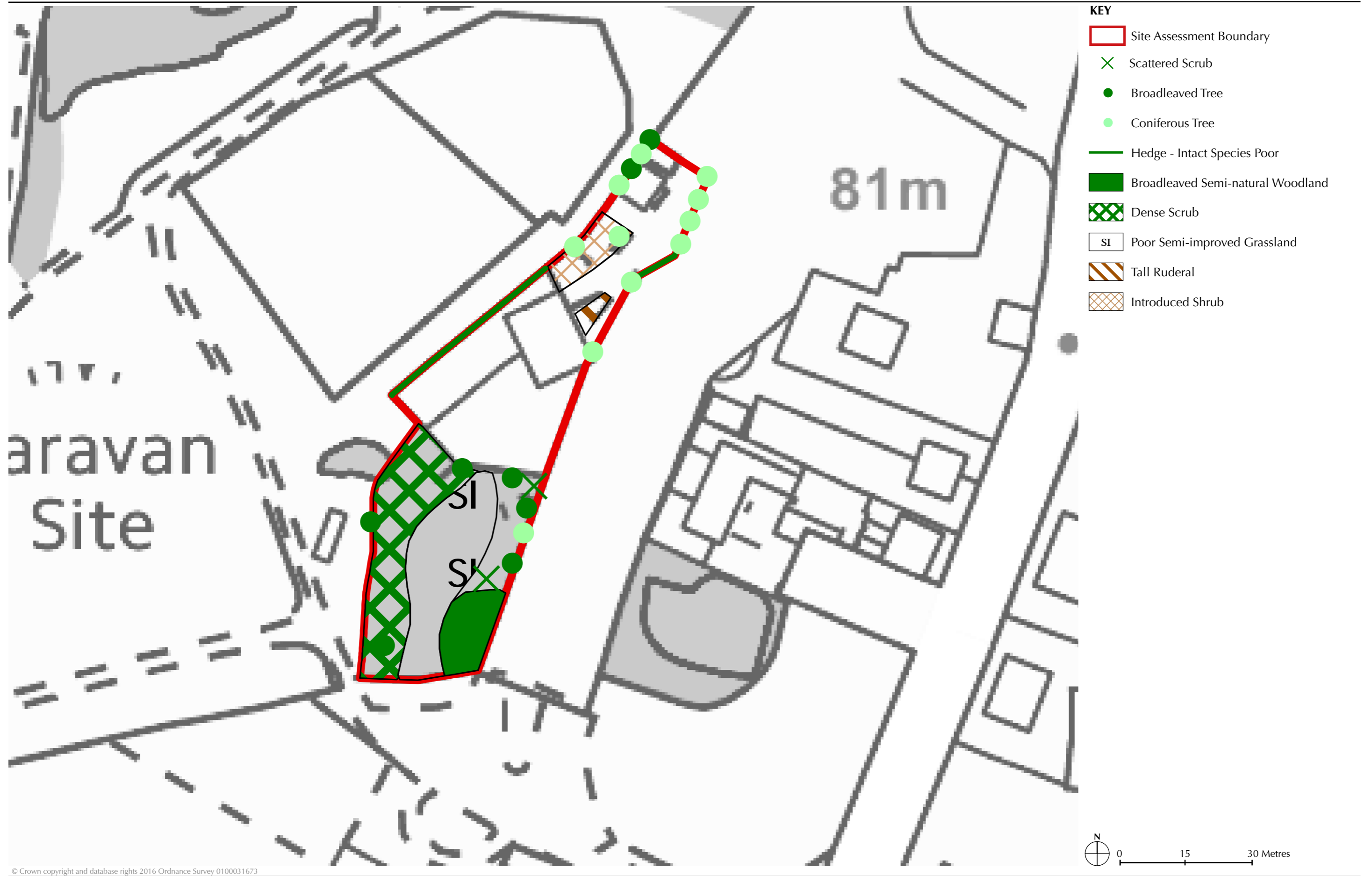
- Implementation of a Construction and Environmental Management Plan (CEMP) to manage site-specific issues relating to the potential impacts of construction on ecological features of interest.
- Offset buffers to protect retained habitats (minimum 10m).
- Use of protective fencing to define construction 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 ponds within 500m 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 relevant habitats and areas.
- 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. However, given the relatively small size of the Site, in order for development to proceed if a sett is found, it may be necessary for it to be closed under license 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 wooded area and mature trees.
- Strengthen boundary vegetation, for example by planting appropriate native species to replace existing species poor and non-native hedges as well as new hedges.
- Remove cherry laurel from the wooded area.
- Habitat creation, ideally located adjacent to retained or adjoining habitat, for example the wooded area and mature oaks in the south 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	
Settlement/Area:	Horam
Site Address:	Land Adjoining Coxlow House, Horam
Site Reference Number:	123/3030
Site Summary Description	
A small area of species poor woodland of recent origin totalling 0.41ha. Also includes tall ruderal and two sheds.	
ECOLOGICAL BASELINE	
Green Infrastructure Context (see Figure 24.1)	
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. There are also a relatively large number of ponds in the Horam area. The Site lies on the southern edge of Horam, with residential development to the north and a large house and grounds to the south. The A267 forms the Site's western boundary, whilst open hedge-lined fields and woodlands lie to the east.	
Desk Study : Designated Sites within 1km (See Figure 24.2)	Distance from Site
<ul style="list-style-type: none"> None 	
Desk Study: BAP Priority Habitats within 1km	Distance from Site
<ul style="list-style-type: none"> Ancient & semi-natural woodland – Bridge Farm Shaw Ancient & semi-natural woodland – Sharps Corner Shaw Ancient & semi-natural woodland – Coneyburrow Wood Ancient & semi-natural woodland – Clearhedge Wood Ancient & semi-natural woodland – East Knowle Wood Ancient & semi-natural woodland – Horeham Flat Farm Shaw Ancient & semi-natural woodland – Coxlow Farm Shaw Ancient & semi-natural woodland – Cogger's Shaw Ancient & semi-natural woodland – Martle Green Shaw Ancient & semi-natural woodland –Coylet Farm Shaw 3 Ancient & semi-natural woodland – Coylet Farm Shaw Ancient & semi-natural woodland – Toll Wood Ancient & semi-natural woodland – Long Shaw 	<ul style="list-style-type: none"> 970m North 820m NNW 420m North West 320m West 940m South West 675m South 350m South 525m South 985m South East 500m South East 340m South East 250m ENE 540m ENE
Desk Study: Protected and Notable Species within 1km	
Protected Species <i>Anguis fragilis</i> Slow worm <i>Eptesicus serotinus</i> Serotine bat <i>Muscardinus avellanarius</i> Hazel dormouse <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>Pipistrellus sp.</i> Pipistrelle sp. bat <i>Plecotus auritus</i> Brown Long-eared bat	

<i>Plecotus</i> sp. <i>Triturus cristatus</i>	Long-eared bat sp. Great crested newt
Sussex BAP Species <i>Bufo bufo</i> <i>Coenonympha pamphilus</i>	Common toad Small Heath
Notable Bird Inventory <i>Delichon urbicum</i> <i>Hirundo rustica</i> <i>Pandion haliaetus</i>	House martin Swallow Osprey
Invasive Alien Species Inventory <i>Centranthus ruber</i> <i>Cotoneaster horizontalis</i> <i>Cotoneaster simonsii</i> <i>Eriocheris sinensis</i> <i>Fallopia japonica</i> <i>Harmonia axyridis</i> <i>Hyacinthoides non-scripta x hispanica</i> (= <i>H. x massartiana</i>) <i>Impatiens glandulifera</i> <i>Mustela vison</i> <i>Petasites fragrans</i> <i>Prunus laurocerasus</i> <i>Rhododendron ponticum</i>	Red valerian Wall cotoneaster Himalayan cotoneaster Chinese mitten crab Japanese Knotweed Harlequin Ladybird Hybrid bluebell Indian balsam American mink Winter heliotrope Cherry laurel Rhododendron
Field Survey: Habitat Descriptions (See Figure 24/123)	
<p>Woodland – Species poor woodland of recent origin in which the most frequent canopy species are ash and sycamore. Other trees include poplar, oak and goat willow. There are no mature trees. Shrub layer species include frequent young ash and sycamore and hawthorn as well as field maple, rose, holly, elder and the non-native invasive cherry laurel. There are one or two fruit trees, including apple and plum. The field layer is species poor and dominated by bramble, nettle and ivy, but other species present include false brome <i>Brachypodium sylvaticum</i>, ground ivy <i>Glechoma hederacea</i>, hedge garlic <i>Alliaria petiolata</i> and herb Robert <i>Geranium robertianum</i>. The woodland has a rather disturbed aspect and there is scattered debris throughout.</p> <p>Tall ruderal – There is a stand of nettle and bramble in an open area on the southern edge of the Site.</p> <p>Buildings – two sheds comprising concrete block with corrugated tin roof and brick and corrugated asbestos roof.</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	
No non-native invasive species recorded during the survey.	
Assessment of Potential for Protected and Notable Species	
<p>Great crested newts – There are no ponds within the Site. However, OS maps indicate the presence of multiple ponds within 500m of the Site. These include towards the end of Grange Close (40m east), at Coxlow Farm (70m south), at the southern end of the Recreation Ground (70m west, beyond the A267 Hailsham Road) and within Toll Wood and woodland to the south (250-350m east). The entire Site</p>	

represents suitable terrestrial habitat for great crested newts and there is therefore potential for them to occur within it during their terrestrial phase.

Reptiles – Very limited potential in small open area(s).

Breeding birds – Throughout site.

Bats – There appear to be few trees with potential to be used as roosts and the buildings appear to be unsuitable. However, activity, including foraging and commuting, is likely throughout the Site.

Dormice – Low potential throughout woodland due to its open structure, recent origin and limited connectivity to the wider network.

Badgers – Potential for setts within the woodland, scrub and hedges, but with or without setts badgers may also use almost any part of the 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 ponds within 500m of the Site, targeting especially those with greater suitability for great crested newts and those closest to the Site.

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

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) throughout the Site.

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

INDICATIVE ECOLOGICAL APPRAISAL

Low to Moderate value – species poor woodland of recent development. 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:

- 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.

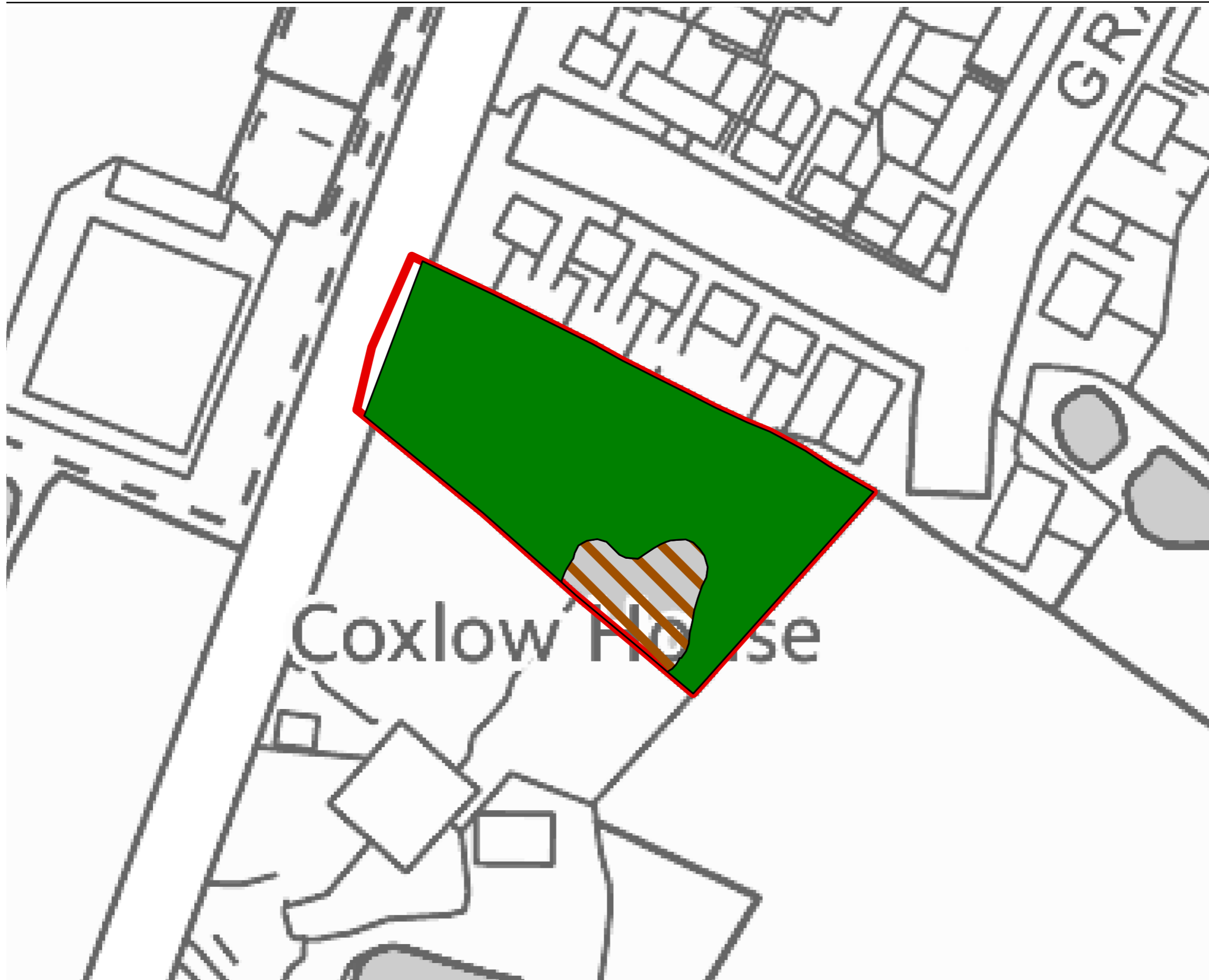
- Implementation of a Construction and Environmental Management Plan (CEMP) to manage site-specific issues relating to the potential impacts of construction on ecological features of interest.
- Offset buffers to protect retained habitats (minimum 10m).
- Use of protective fencing to define construction 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 ponds within 500m 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).
- In light of the potential presence of breeding birds, if possible cutting back or removal of woody vegetation, including trees and shrubs, 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 seek to avoid any prime foraging grounds identified through the badger survey, avoid severance to commuting corridors within territories and avoid any construction works within at least 30m of the nearest badger setts.




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.
- Strengthen boundary vegetation, for example by planting 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.



KEY

-  Site Assessment Boundary
-  Broadleaved Semi-natural Woodland
-  Tall Ruderal

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ECOLOGICAL ASSESSMENT									
Area:	Horam								
Site Name:	Land South Side of Horebeech Lane, Horam								
Site Reference Number:	449/3030								
Site Summary Description									
A species poor grassland field totalling 2.66ha, including both mown and unmanaged areas, enclosed within species-rich hedges. There is also a small pond and a section of garden.									
ECOLOGICAL BASELINE									
Green Infrastructure Context (see Figure 24.1)									
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. There are also a relatively large number of ponds in the Horam area. The Site lies to the east of Horam, with residential development lying to its west and Horebeech Lane forms its northern boundary. To the east scattered development gives way to a patchwork of small, well hedged, fields and small woodlands. The landscape is similar to the south, beyond the well-treed, disused railway line that forms the Site's southern boundary.									
Desk Study : Designated Sites within 1km (See Figure 24.2)	Distance from Site								
<ul style="list-style-type: none"> None 									
Desk Study: BAP Priority Habitats within 1km	Distance from Site								
<ul style="list-style-type: none"> Ancient & semi-natural woodland – Thunderly Wood Ancient & semi-natural woodland – Long Shaw Ancient & semi-natural woodland – Clearhedge Wood Ancient & semi-natural woodland – Toll Wood Ancient & semi-natural woodland – Coylet Farm Shaw 2 Ancient & semi-natural woodland – Coylet Farm Shaw Ancient & semi-natural woodland – Coylet Farm Shaw 3 Ancient & semi-natural woodland – Coggers Shaw Ancient & semi-natural woodland – Marle Green Shaw 2 Ancient & semi-natural woodland –Raven Shaw Ancient & semi-natural woodland – Marle Green Shaw Ancient & semi-natural woodland – Marle Green Shaw 3 Ancient & semi-natural woodland – Clappers Wood Ancient & semi-natural woodland – Waldron Gill Ancient & semi-natural woodland –Hook Farm Shaw 2 Ancient & semi-natural woodland – Hook Farm Shaw 3 	<ul style="list-style-type: none"> 890m North 125m North West 990m West 325m West 100m West 670m South West 200m South West 630m South West 500m South 530m SSE 290m SSE 120m SSE 870m East 440m North East 870m North East 845m North East 								
Desk Study: Protected and Notable Species within 1km									
<table> <tr> <td>Protected Species</td> <td></td> </tr> <tr> <td><i>Anguis fragilis</i></td> <td>Slow worm</td> </tr> <tr> <td><i>Eptesicus serotinus</i></td> <td>Serotine bat</td> </tr> <tr> <td><i>Muscardinus avellanarius</i></td> <td>Hazel dormouse</td> </tr> </table>		Protected Species		<i>Anguis fragilis</i>	Slow worm	<i>Eptesicus serotinus</i>	Serotine bat	<i>Muscardinus avellanarius</i>	Hazel dormouse
Protected Species									
<i>Anguis fragilis</i>	Slow worm								
<i>Eptesicus serotinus</i>	Serotine bat								
<i>Muscardinus avellanarius</i>	Hazel dormouse								

<i>Natrix natrix</i>	Grass snake
<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>Plecotus</i> sp.	Long-eared bat sp.
<i>Triturus cristatus</i>	Great crested newt
Sussex BAP Species	
<i>Bufo bufo</i>	Common toad
<i>Coenonympha pamphilus</i>	Small Heath
<i>Erinaceus europaeus</i>	European hedgehog
<i>Salmo trutta</i>	Brown trout
Notable Bird Inventory	
<i>Hirundo rustica</i>	Swallow
<i>Tyto alba</i>	Barn owl
Invasive Alien Species Inventory	
<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>Impatiens glandulifera</i>	Indian balsam
<i>Mustela vison</i>	American mink
<i>Petasites fragrans</i>	Winter heliotrope
<i>Rhododendron ponticum</i>	Rhododendron
Field Survey: Habitat Descriptions (See Figure 24/449)	
<p>Poor semi-improved grassland – Species poor and of variable structure. The dominant grasses are Yorkshire Fog <i>Holcus lanatus</i>, common bent <i>Agrostis capillaris</i> with locally frequent perennial rye-grass <i>Lolium perenne</i>. Forb cover is generally low and comprised common and widespread species such as creeping and meadow buttercup <i>Ranunculus repens</i> and <i>acris</i>, white clover <i>Trifolium repens</i>, bird's foot trefoil <i>Lotus corniculatus</i> and self-heal <i>Prunella vulgaris</i>. Broadleaved dock <i>Rumex obtusifolius</i> and bristly ox tongue <i>Picris echioides</i> are occasional and locally frequent. The sward varies from short and recently cut to taller and uncut. There is also an area of unmanaged grassland in the south east of the field (representing approximately a quarter of the field) with frequent anthills. As well as bird's foot trefoil this also includes meadow vetchling <i>Lathyrus pratensis</i>, common sorrel <i>Rumex acetosa</i>, marsh thistle <i>Cirsium palustre</i> and common ragwort <i>Senecio jacobaea</i>. There is a smaller area of similar grassland within the southern part of the garden in the west of the Site.</p> <p>Tall ruderal – There is a strip of tall ruderal, comprising nettle, docks and thistles with scattered scrub set within the unmanaged grassland.</p> <p>Hedges – Are species rich and included hawthorn, blackthorn, hornbeam, field maple and ash. The hedge on the eastern boundary includes numerous mature trees, including oak, ash, field maple and hornbeam. This hedge now comprises more of a tree line than a hedge as the trees appear to have suppressed the shrubby element beneath.</p> <p>Pond – Small but containing water in the north eastern corner of the field. Partially shaded by trees (ash and willows) with little or no in-pond vegetation, though there is some soft rush <i>Juncus effusus</i> and remote sedge <i>Carex remota</i> on the margins.</p> <p>Garden – As well as the grassland noted above also includes scattered trees and shrubs (native and non-native), cultivated beds and lawn/amenity grassland.</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
No non-native invasive species recorded during the survey.
Assessment of Potential for Notable Species
<p>Great crested newts – There are recent records (2014) of great crested newts from the pond within the Site. In addition to this pond OS maps indicate the presence of numerous ponds within 500m of the Site and the unmanaged grassland and hedges represent suitable terrestrial habitat for great crested newts within the Site.</p> <p>Reptiles – Potential in unmanaged grassland, along boundaries and within garden area.</p> <p>Breeding birds – In hedges and trees.</p> <p>Bats – Trees and mature trees in particular, with features such as cracks and cavities, for example including many within the woodland and also within the garden and hedges, have potential to be used as roosts. Activity, including foraging and commuting, is likely throughout but especially along hedges and woodland edge.</p> <p>Dormice – Moderate potential in hedges and adjoining woodland due to connectivity with the wider network of hedges and woodland.</p> <p>Badgers – Potential for setts within the hedges and adjoining woodland, but with or without setts badgers may also use almost any part 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)
<p>Amphibian (including great crested newt) – (March – June) of the pond within the Site and ponds within 500m of the Site, targeting especially those with greater suitability for great crested newts and those closest to the Site.</p> <p>Reptiles – (May – June, September – October) in suitable habitat.</p> <p>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.</p> <p>Dormice – (April – November) in suitable habitat.</p> <p>Badgers – (Year round but Spring / Autumn optimal) of whole Site and adjoining woodland.</p>
INDICATIVE ECOLOGICAL APPRAISAL
Low to Moderate value – rather species poor grassland but the hedges and mature trees are of moderate value. The Sites habitats and features have moderate potential to support notable/protected species.
Impact Avoidance
<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"> • Retaining the hedges and matures trees and their features. • Buffering the adjoining woodland. • 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.

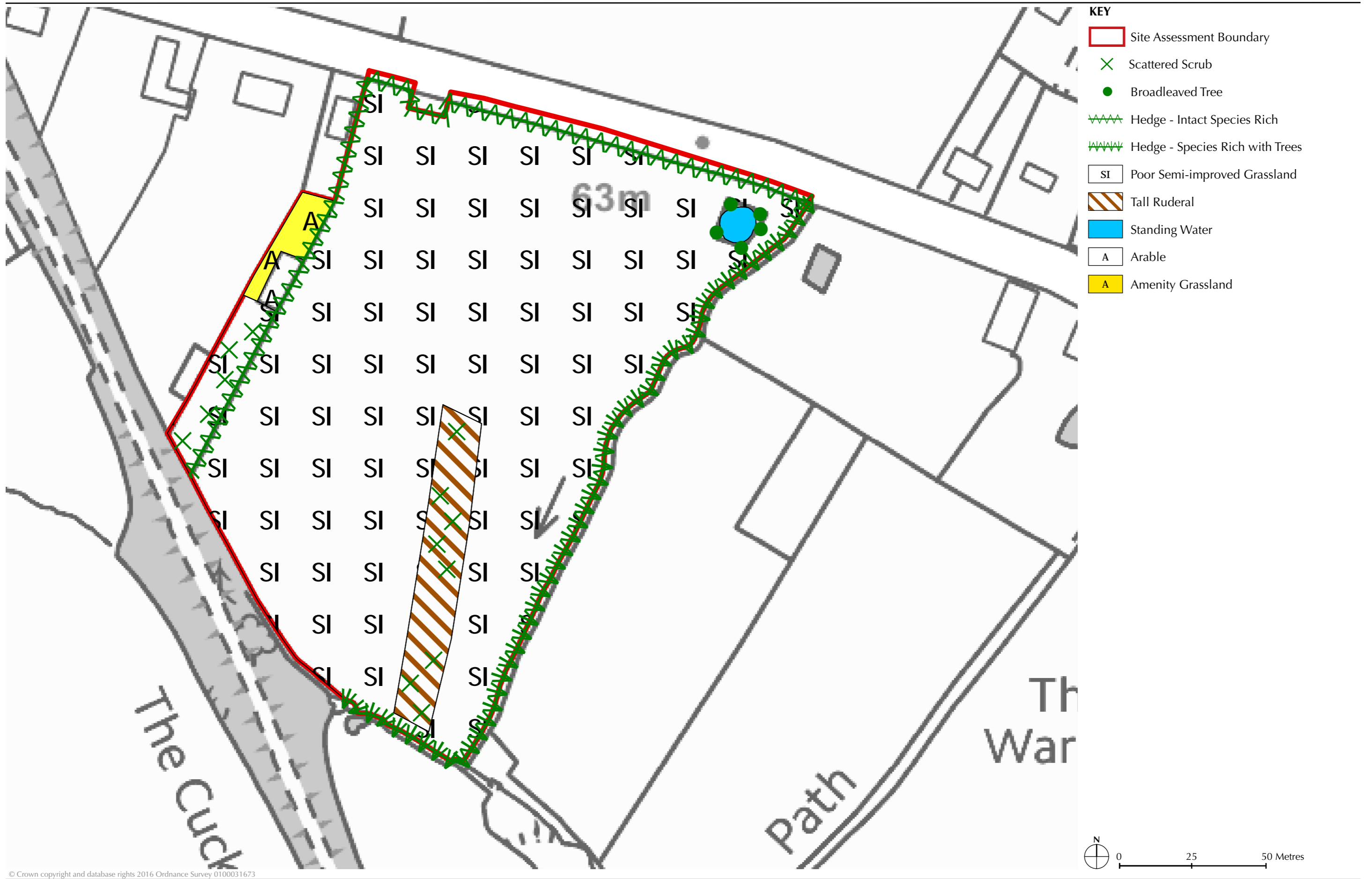
- Implementation of a Construction and Environmental Management Plan (CEMP) to manage site-specific issues relating to the potential impacts of construction on ecological features of interest.
- Offset buffers to protect retained habitats (minimum 10m).
- Use of protective fencing to define construction 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.
- Buffer the hedges and mature trees and their features, as well as the adjoining woodland.
- If great crested newts are found to be present in the pond within the 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 absent from this pond but present in ponds within 500m 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).
- In light of the potential presence of breeding birds, if possible cutting back or removal of woody vegetation, including hedgerows and trees, 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.
- If dormice are found to be present the retention and appropriate buffering of hedges and woodland (as noted above).
- Development should seek to avoid any prime foraging grounds identified through the badger survey, avoid severance to commuting corridors within territories and avoid any construction works within at least 30m of the nearest badger setts.

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 hedges and mature trees.

- Strengthen boundary vegetation, for example by planting appropriate native species to strengthen existing hedges, as well as creating new ones.
- Habitat creation, ideally located adjacent to retained or adjoining habitat, for example the wooded area and mature oaks in the south 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.



- KEY**
- Site Assessment Boundary
 - X Scattered Scrub
 - Broadleaved Tree
 - ~ Hedge - Intact Species Rich
 - ~ Hedge - Species Rich with Trees
 - SI Poor Semi-improved Grassland
 - Tall Ruderal
 - Standing Water
 - A Arable
 - Amenity Grassland

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ECOLOGICAL ASSESSMENT																			
Settlement/Area:	Horam																		
Site Address:	Horam Manor Estate, Horam																		
Site Reference Number:	499/3030																		
Site Summary Description																			
A mosaic of habitats and features comprising a complex of buildings and structures and associated hard standing, allotment, species-poor and amenity grassland, ruderal, trees and scrub totalling 1.52ha.																			
ECOLOGICAL BASELINE																			
Green Infrastructure Context (see Figure 24.1)																			
<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. There are also a relatively large number of ponds in the Horam area.</p> <p>The Site lies on the western side of Horam and is largely surrounded by existing development on its northern, southern and eastern boundaries. To the west lies open countryside of hedge-lined fields and blocks of woodland.</p>																			
Desk Study : Designated Sites within 1km (See Figure 24.2)	Distance from Site																		
<ul style="list-style-type: none"> None 																			
Desk Study: BAP Priority Habitats within 1km	Distance from Site																		
<ul style="list-style-type: none"> Ancient & semi-natural woodland – Bridge Farm Shaw Ancient & semi-natural woodland – Sharps Corner Shaw Ancient & semi-natural woodland – Furnace Wood Ancient & semi-natural woodland – Stumlet Wood Ancient & semi-natural woodland – Stumlet Gill Ancient & semi-natural woodland – Coneyburrow Wood Ancient & semi-natural woodland – Clearhedge Wood Ancient & semi-natural woodland – Coylet Farm Shaw 3 Ancient & semi-natural woodland – Coylet Farm Shaw Ancient & semi-natural woodland – Toll Wood Ancient & semi-natural woodland – Long Shaw Ancient & semi-natural woodland – Thunderly Wood 	<ul style="list-style-type: none"> 320m North 180m North 350m North West 590m WNW 880m West Adjacent South 200m South 980m South East 480m South East 480m South East 760m ESE 80m ENE 																		
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<p>Protected Species</p> <table> <tbody> <tr> <td><i>Anguis fragilis</i></td> <td>Slow worm</td> </tr> <tr> <td><i>Eptesicus serotinus</i></td> <td>Serotine bat</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>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 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>Plecotus sp.</i></td> <td>Long-eared bat sp.</td> </tr> </tbody> </table>		<i>Anguis fragilis</i>	Slow worm	<i>Eptesicus serotinus</i>	Serotine bat	<i>Muscardinus avellanarius</i>	Hazel dormouse	<i>Natrix natrix</i>	Grass snake	<i>Pipistrellus pipistrellus</i>	Common Pipistrelle (45 kHz) bat	<i>Pipistrellus pygmaeus</i>	Soprano pipistrelle (55kHz) bat	<i>Pipistrellus sp.</i>	Pipistrelle sp. bat	<i>Plecotus auritus</i>	Brown Long-eared bat	<i>Plecotus sp.</i>	Long-eared bat sp.
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<i>Triturus cristatus</i>	Great crested newt
Sussex BAP Species	
<i>Bufo bufo</i>	Common toad
<i>Coenonympha pamphilus</i>	Small Heath
<i>Erinaceus europaeus</i>	European hedgehog
<i>Salmo trutta</i>	Brown trout
Notable Bird Inventory	
<i>Hirundo rustica</i>	Swallow
<i>Tyto alba</i>	Barn owl
Invasive Alien Species Inventory	
<i>Cotoneaster simonsii</i>	Himalayan cotoneaster
<i>Crocsmia pottsii</i> x <i>aurea</i> = <i>C. x crocosmiiflora</i>	Montbretia
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<i>Petasites fragrans</i>	Winter heliotrope
<i>Rhododendron ponticum</i>	Rhododendron
Field Survey: Habitat Description (See Figure 24/499)	
<p>Poor semi-improved grassland – Several small areas of species-poor grassland in the north and west of the Site. This has a variable sward structure, though much is tall and tussocky. The grassland is generally dominated by Yorkshire Fog <i>Holcus lanatus</i>, common bent <i>Agrostis capillaris</i> and perennial rye-grass <i>Lolium perenne</i> with little forb cover, most of which is creeping buttercup and a small number of other common and widespread species. A bank to the south of the café includes bird's foot trefoil <i>Lotus corniculatus</i>, ox eye daisy <i>Leucanthemum vulgare</i> and common knapweed <i>Centaurea nigra</i>.</p> <p>Ruderal – Includes stands of tall ruderal towards the south of the Site, especially nettle, but also thistles and docks, as well as areas of partially vegetated hard standing, and recently disturbed areas (ephemeral/short perennial) supporting a range of common and widespread species typical of such habitats, such as goosefoots <i>Chenopod</i> spp., redshank <i>Persicaria maculata</i> and scentless mayweed <i>Tripleurospermum inodorum</i>.</p> <p>Trees and scrub – Trees are scattered and in groups across the Site, including oak, ash, sycamore, beech and conifers. Some of these are mature. There is scattered and dense scrub, including stands of bramble, across the Site, for example beside and between buildings and along the Site's boundaries.</p> <p>Hedges – There is a species-rich hedge with trees on the western boundary of the Site. This includes oak and ash trees as well as hawthorn, blackthorn and rose.</p> <p>Allotment – There is a garden or allotment area, including cultivated beds, grass paths and small trees in the north east of the Site.</p> <p>Buildings – Are numerous and variable, including barns of various constructions, but including old timber-frame with tiled roof, stables, sheds and brick with pitched and tiled roof.</p>	
Field Survey: Notable 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 non-native invasive species recorded during the survey.

Assessment of Potential for Notable and Protected Species

Great crested newts – There are no ponds within the Site. However, the survey and OS maps indicate the presence of several ponds within 500m of the Site. These include several fishing ponds immediately to the south (20m), to the north of the Recreation Ground (180m south east), several within Coneyburrow Wood (from 150m west) and to the north of the A267 Little London Road (250m north). Areas of, for example, unmanaged grassland, tall ruderal, scrub and spoil, rubble and log piles, represent suitable terrestrial habitat for great crested newts within the Site and there is therefore potential for them to occur within it during their terrestrial phase.

Reptiles – Potential in areas of unmanaged grassland, tall ruderal, scrub and spoil, rubble and log piles.

Breeding birds – In hedges, trees, scrub and some buildings, for example by barn owl, swallows and martins.

Bats – Trees and mature trees in particular, with features such as cracks and cavities, for example including many within the woodland and also within the garden and hedges, have potential to be used as roosts, as do some of the buildings. Activity, including foraging and commuting, is likely throughout but especially along hedges and woodland edge.

Dormice – Moderate potential in hedge on western boundary due to their species composition and structure, and connectivity to hedges and woodland.

Badgers – Some potential for setts within undisturbed areas, including woodland edge, hedges, scrub and tall ruderal but with or without setts, badgers may also use almost any part of the Site for foraging. However, neither setts nor foraging signs are recorded during the survey.

Recommendations for Further Survey

Amphibian (including great crested newt) – (March – June) of the ponds within 500m of the Site, targeting especially those with greater suitability for great crested newts and those closest to the Site.

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

Breeding birds – targeted at buildings with potential to be used by breeding barn owls.

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

Dormice – (April – November) in hedges.

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

INDICATIVE ECOLOGICAL APPRAISAL

Low to Moderate value – mostly buildings and hard standing with small areas of common and widespread habitats. However, the hedge(s) on the western boundary as well as some of the mature trees and (potentially) buildings are of value and the 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 hedge on the western boundary as well as other mature trees and their features within the Site.
- Insofar as it may be possible, retaining buildings and structures supporting notable/protected species such as bats and breeding birds.

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.

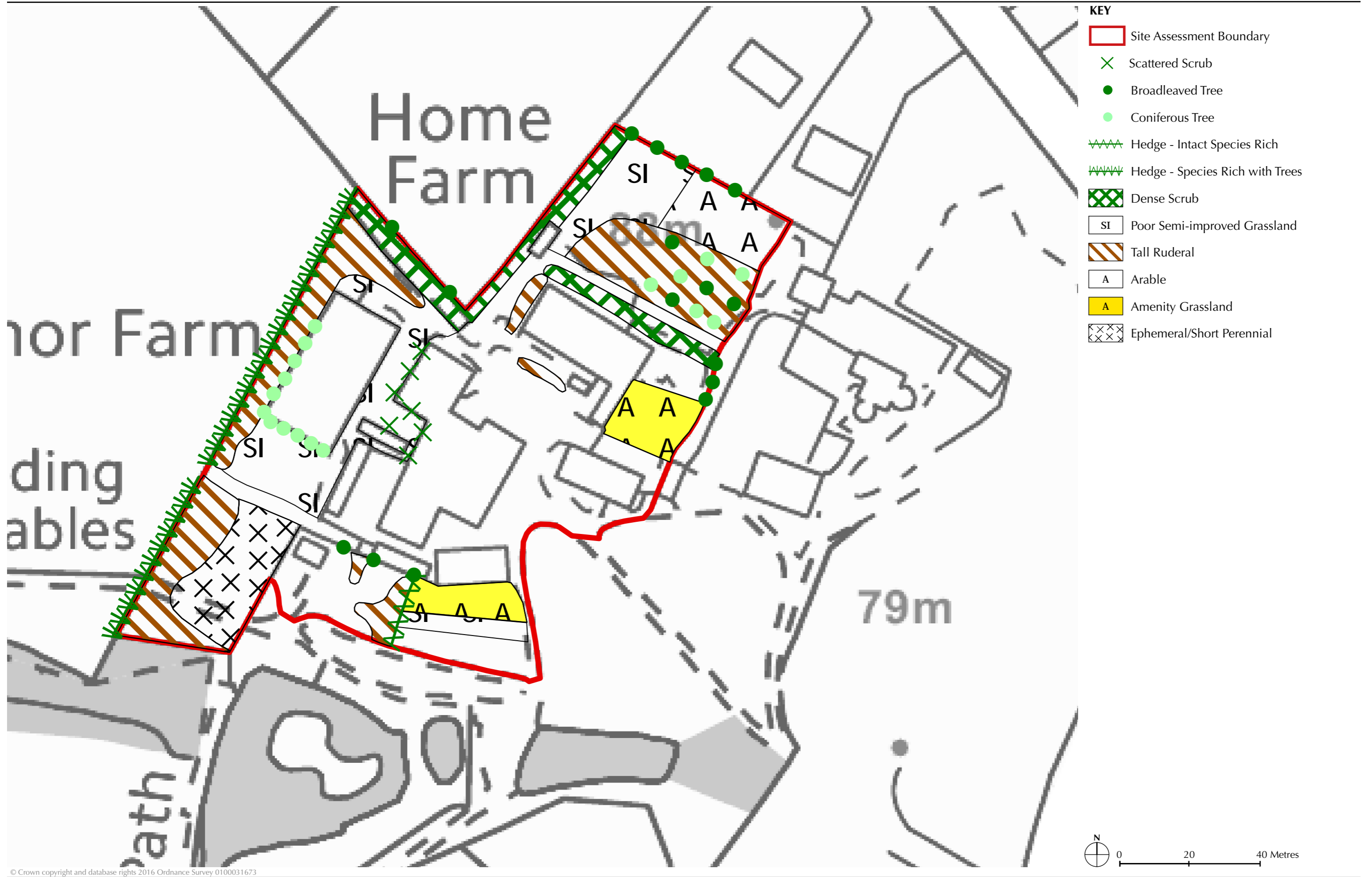
- Implementation of a Construction and Environmental Management Plan (CEMP) to manage site-specific issues relating to the potential impacts of construction on ecological features of interest.
- Offset buffers to protect retained habitats (minimum 10m).
- Use of protective fencing to define construction 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.
- Buffer the hedge on the western boundary as well as other mature trees and their features within the Site.
- Retain and positively manage buildings and structures supporting notable/protected species such as bats and breeding birds.
- If great crested newts are found in ponds within 500m 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).
- 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.
- If dormice are found to be present the retention and appropriate buffering of hedges (as noted above).
- Development should seek to avoid any prime foraging grounds identified through the badger survey, avoid severance to commuting corridors within territories and avoid any construction works within at least 30m of the nearest badger setts.

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 hedges, mature trees and, insofar as it may be possible, retained buildings and structures.
- Strengthen boundary vegetation, for example by planting appropriate native species to strengthen existing hedges, as well as creating new ones.
- Habitat creation, ideally located adjacent to retained or adjoining habitat, for example the wooded area and mature trees, 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											
Settlement/Area:	Horam										
Site Address:	Land at Rose Mead Farm, Horebeech Lane, Horam										
Site Reference Number:	556/3030										
Site Summary Description											
A 2.39 ha Site that includes two small areas of Ancient Woodland, two species poor grassland fields and sections of hedgerows.											
ECOLOGICAL BASELINE											
Green Infrastructure Context (see Figure 24.1)											
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. There are also a relatively large number of ponds in the Horam area. The Site is located on the eastern fringes of Horam and includes within its boundaries Long Shaw Ancient Woodland. The western boundary is formed by the well-treed disused railway line and Horebeech Lane to the South. The rest of the Site opens out onto a patchwork of hedge-lined agricultural fields.											
Desk Study : Designated Sites within 1km (See Figure 24.2)	Distance from Site										
<ul style="list-style-type: none"> None 											
Desk Study: BAP Priority Habitats within 1km	Distance from Site										
<ul style="list-style-type: none"> Ancient & semi-natural woodland – Long Shaw Ancient & semi-natural woodland – Thunderly Wood Ancient & semi-natural woodland – Bridge Farm Shaw Ancient & semi-natural woodland – Sharp’s Corner Shaw Ancient & semi-natural woodland – Coneyburrow Wood Ancient & semi-natural woodland – Clearhedge Wood Ancient & semi-natural woodland – Toll Wood Ancient & semi-natural woodland – Coylet Farm Shaw Ancient & semi-natural woodland – Coylet Farm Shaw 3 Ancient & semi-natural woodland – Cogger’s Shaw Ancient & semi-natural woodland – Marle Green Shaw 3 Ancient & semi-natural woodland – Marle Green Shaw Ancient & semi-natural woodland – Waldron Gill Ancient & semi-natural woodland – Hook Farm Shaw 3 Ancient & semi-natural woodland – Hook Farm Shaw 2 Ancient & semi-natural woodland – Hook Farm Shaw Ancient & semi-natural woodland – Bottle Shaw 	<ul style="list-style-type: none"> Within Site 670m North 775m North West 855m North West 670m West 710m WSW 220m South West 125m South 325m South 740m South 410m SSE 620m South East 540m East 765m North East 820m North East 820m North East 900m North East 										
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<i>Natrix natrix</i>	Grass snake
<i>Pipistrellus pipistrellus</i>	Common Pipistrelle (45 kHz) bat
<i>Pipistrellus pygmaeus</i>	Soprano pipistrelle (55kHz) bat
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<i>Triturus cristatus</i>	Great crested newt
Sussex BAP Species	
<i>Bufo bufo</i>	Common toad
<i>Coenonympha pamphilus</i>	Small Heath
<i>Salmo trutta</i>	Brown trout
Notable Bird Inventory	
<i>Hirundo rustica</i>	Swallow
<i>Pandion haliaetus</i>	Osprey
<i>Tyto alba</i>	Barn owl
Invasive Alien Species Inventory	
<i>Centranthus ruber</i>	Red valerian
<i>Cotoneaster simonsii</i>	Himalayan cotoneaster
<i>Crocodymia pottsii</i> x <i>aurea</i> = <i>C. x crocosmiiflora</i>	Montbretia
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<i>Hyacinthoides non-scripta</i> x <i>hispanica</i> (= <i>H. x massartiana</i>)	Hybrid bluebell
<i>Impatiens glandulifera</i>	Indian balsam
<i>Lamium galeobdolon</i> subsp. <i>Argentatum</i>	Variiegated yellow archangel
<i>Mustela vison</i>	American mink
<i>Petasites fragrans</i>	Winter heliotrope
<i>Rhododendron ponticum</i>	Rhododendron
Field Survey: Habitat Descriptions (See Figure 24/556)	
<p>Woodland – Comprises two small areas of Ancient Woodland in the west and south of the site. Hornbeam and oak are the dominant canopy species but ash and aspen are also present. The shrub layer includes hawthorn, holly, rose, field maple, hazel, and ash, as well as the Ancient Woodland Indicator Species (AWIS) woodland hawthorn <i>Crataegus laevigata</i>. The non-native and invasive Portugal and cherry laurels are also present in very small numbers. The field layer appears to be moderately species-rich with several AWIS, including bluebell <i>Hyacinthoides non-scripta</i>, primrose <i>Primula vulgaris</i> and wood sedge <i>Carex sylvatica</i>. Other species include bramble, nettle, ivy, false brome <i>Brachypodium sylvaticum</i>, tufted hair-grass <i>Deschampsia cespitosa</i>, lords and ladies <i>Arum maculatum</i> and male fern <i>Dryopteris felix-mas</i>. The two areas of Ancient Woodland are joined by a small area of developing woodland along the Horebeech Lane frontage.</p> <p>Poor semi-improved grassland – Two fields of species poor grassland. Yorkshire Fog <i>Holcus lanatus</i>, common bent <i>Agrostis capillaris</i> are the dominant grasses with sweet vernal-grass <i>Anthoxanthum odoratum</i> and cocksfoot <i>Dactylis glomerata</i> also present and tufted hair-grass frequent in the southern field. Hairy sedge <i>Carex hirta</i> and soft and hard rushes <i>Juncus effusus</i> and <i>inflexus</i> are present in the southern field. Forb content is low, in the region of 10-20% and includes common and greater bird's foot trefoils <i>Lotus corniculatus</i> and <i>pedunculatus</i>, meadow vetchling <i>Lathyrus pratensis</i>, common sorrel <i>Rumex acetosa</i> and red clover <i>Trifolium pratense</i>. The northern field has a 'managed' sward structure though it is uncut or grazed at the time of the survey, but the southern field is unmanaged and has a tall and tussocky (compact tufts) structure.</p> <p>Hedges – Includes sections of both species poor (mostly blackthorn) and species rich hedges (also with hawthorn and hornbeam).</p> <p>Ponds – There are three ponds within the woodlands, two in the eastern part and one in the northern. All</p>	

three are similar in character. They are quite shallow and heavily shaded with much woody debris and leaf litter. There is little aquatic, emergent or marginal vegetation, though there is patchy duckweed *Lemna* sp. and some woody nightshade *Solanum dulcamara* and remote sedge *Carex remota*.

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

Portugal and cherry laurel recorded in the woodland.

Assessment of Potential for Notable and Protected Species

Great crested newts – In addition to the pond within the Site OS maps indicate the presence of numerous ponds within 500m of the Site and the entire Site apart from the northern grassland field represents suitable terrestrial habitat for great crested newts within the Site.

Reptiles – Potential in southern field and along boundaries.

Breeding birds – in woodland and hedges.

Bats – On-site trees and mature trees in particular, with features such as cracks and cavities, for example including many within the woodland have potential to be used as roosts. Activity, including foraging and commuting, is likely throughout but especially along hedges and woodland edge.

Dormice – High potential in woodland and hedges due to connectivity to the wider network of woodland and hedges.

Badgers – Potential for setts within the woodland and hedges, but with or without setts badgers may also use almost any part of the 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 ponds within the Site and ponds within 500m of the Site, targeting especially those with greater suitability for great crested newts and those closest to the Site.

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

Breeding birds – (April – June) especially woodland 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 to High value – includes areas of Ancient Woodland and hedges and 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 the woodland and hedges.
- Locating any development within the northern field and leave southern field undeveloped, either to develop/succeed into woodland without intervention or as a location for alternative habitat creation (as part of a mitigation or enhancement strategy, see below).

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.
- 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.
- Buffer and positively manage the woodland and hedges.
- If great crested newts are found to be present in the pond within the 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 absent from this pond but present in ponds within 500m 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).
- In light of the potential presence of breeding birds, if possible cutting back or removal of woody vegetation, including trees, shrubs 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.
- If dormice are found to be present the retention and appropriate buffering of woodland and/or hedges (as noted above).
- Development should seek to avoid any prime foraging grounds identified through the badger survey, avoid severance to commuting corridors within territories and avoid any construction works within at least 30m of the nearest badger setts.

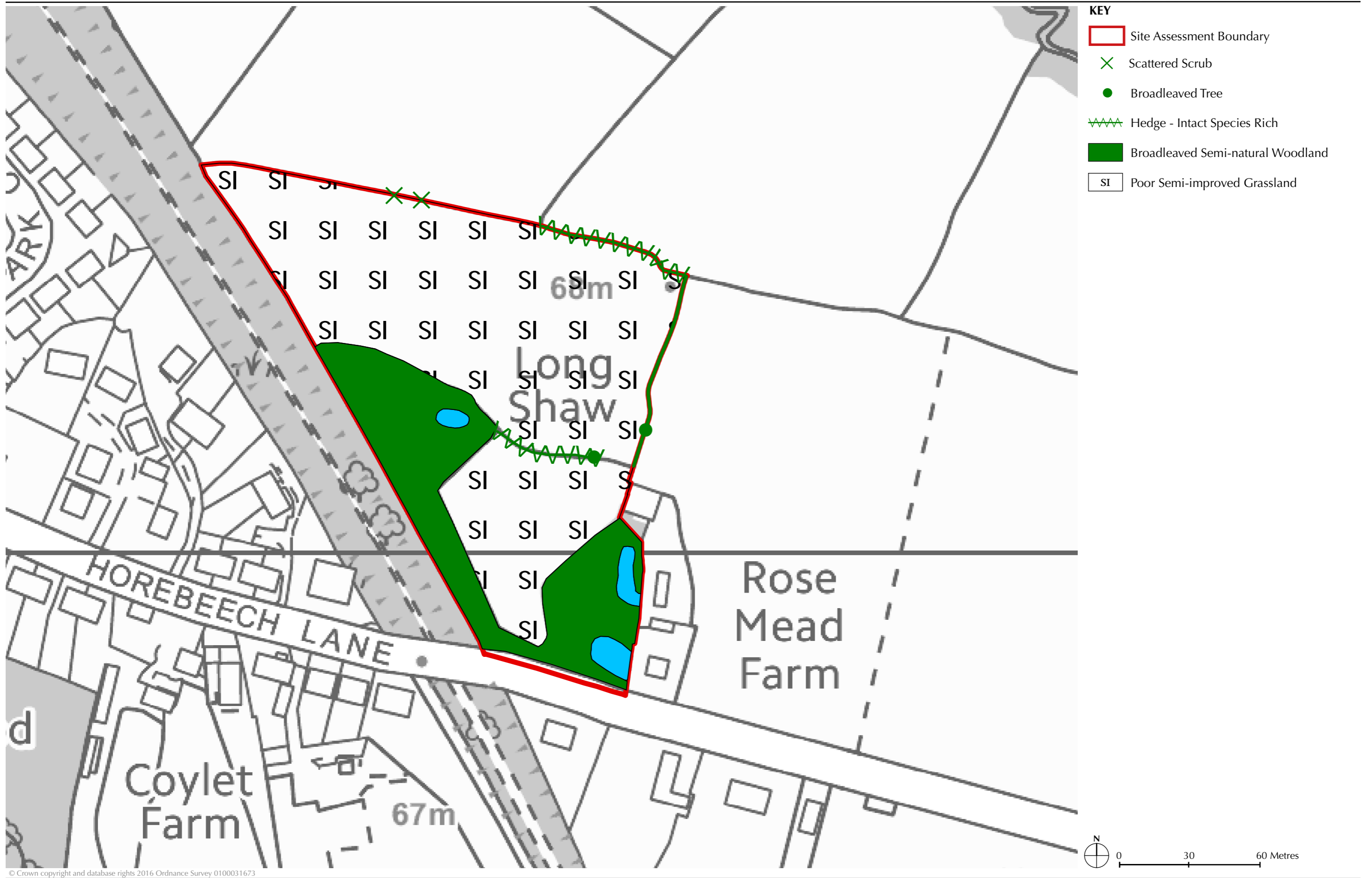
Potential Enhancement Opportunities

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 hedges, woodland

and mature trees.

- Strengthen boundary vegetation by planting appropriate native species, for example to gap-up existing hedges, as well as creating new ones, particularly along the northern boundary.
- Habitat creation, ideally located adjacent to retained or adjoining habitat, for example between the woodland areas in the southern grassland 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.



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ECOLOGICAL ASSESSMENT	
Settlement/Area:	Horam
Site Address:	Land at Flinstones, Manor Road, Horam
Site Reference Number:	598/3030
Site Summary Description	
A 0.15 ha Site comprising of a house and garden with species-poor hedges, amenity grassland and planted beds and borders.	
ECOLOGICAL BASELINE	
Green Infrastructure Context (see Figure 24.1)	
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. There are also a relatively large number of ponds in the Horam area. The Site lies within the village of Horam, with residential development and their associated grounds on all sides.	
Desk Study : Designated Sites within 1km (See Figure 24.2)	Distance from Site
<ul style="list-style-type: none"> None 	
Desk Study: BAP Priority Habitats within 1km	Distance from Site
<ul style="list-style-type: none"> Ancient & semi-natural woodland – Bridge Farm Shaw Ancient & semi-natural woodland – Runtington / Crock-kiln / Geer’s Woods Ancient & semi-natural woodland – Huggett’s Farm Shaw Ancient & semi-natural woodland – Furnace Wood Ancient & semi-natural woodland – Sharps Corner Shaw Ancient & semi-natural woodland – Coneyburrow Wood Ancient & semi-natural woodland – Clearhedge Wood Ancient & semi-natural woodland – Toll Wood Ancient & semi-natural woodland – Coylet Farm Shaw Ancient & semi-natural woodland – Long Shaw Ancient & semi-natural woodland – Thunderly Wood Ancient & semi-natural woodland – Hook Farm Shaw Ancient & semi-natural woodland – Bottle Shaw 	<ul style="list-style-type: none"> 340m North 990m North 880m North West 600m West 325m West 500m South West 600m SSW 580m South 870m South 660m SSE 450m East 900m East 500m North East
Desk Study: Protected and Notable Species within 1km	
Protected Species <i>Anguis fragilis</i> Slow worm <i>Eptesicus serotinus</i> Serotine bat <i>Muscardinus avellanarius</i> Hazel dormouse <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>Pipistrellus sp.</i> Pipistrelle sp. bat <i>Plecotus auritus</i> Brown Long-eared bat <i>Plecotus sp.</i> Long-eared bat sp. <i>Triturus cristatus</i> Great crested newt	

Sussex BAP Species <i>Bufo bufo</i>	Common toad
Notable Bird Inventory <i>Delichon urbicum</i> <i>Hirundo rustica</i> <i>Pandion haliaetus</i>	House martin Swallow Osprey
Invasive Alien Species Inventory <i>Centranthus ruber</i> <i>Cotoneaster horizontalis</i> <i>Cotoneaster simonsii</i> <i>Fallopia japonica</i> <i>Harmonia axyridis</i> <i>Hyacinthoides non-scripta x hispanica</i> (= <i>H. x massartiana</i>) <i>Impatiens glandulifera</i> <i>Mustela vison</i> <i>Prunus laurocerasus</i> <i>Rhododendron ponticum</i>	Red valerian Wall cotoneaster Himalayan contoneaster Japanese Knotweed Harlequin Ladybird Hybrid bluebell Indian balsam American mink Cherry laurel Rhododendron
Field Survey: Habitat Description (See Figure 24/598)	
<p>Amenity grassland – Lawn throughout the centre of the Site, with limited range of typical common and widespread species.</p> <p>Introduced shrubs – Largely surrounding the amenity grassland and adjacent to the house, planted with range of non-native species.</p> <p>Hedges – species poor and largely non-native cherry laurel and conifer.</p> <p>Buildings – modern house with pitched and tiled roof.</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	
Cherry laurel – in hedges.	
Assessment of Potential for Notable and Protected Species	
<p>Great crested newts – There are no ponds within the Site but OS maps and aerial images indicate the presence of a number of ponds within 500m, of which the nearest appear to be immediately to the north and east of the Site. However, suitable terrestrial habitat for great crested newts within the Site is limited, comprising the hedges and some areas of undisturbed beds and borders.</p> <p>Breeding birds – In hedges, trees and shrubs.</p> <p>Bats – There are no trees with potential to be used as roosts and the house appears to have low potential.</p>	
Recommendations for Further Survey (and optimal survey timings)	
Amphibian (including great crested newt) – (March – June) of the ponds within 500m of the Site, targeting especially those with greater suitability for great crested newts and closest to the Site.	

INDICATIVE ECOLOGICAL APPRAISAL

Low value – house and garden with low potential to support notable or protected species.

Impact Avoidance

No avoidance measures are currently identified.

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.

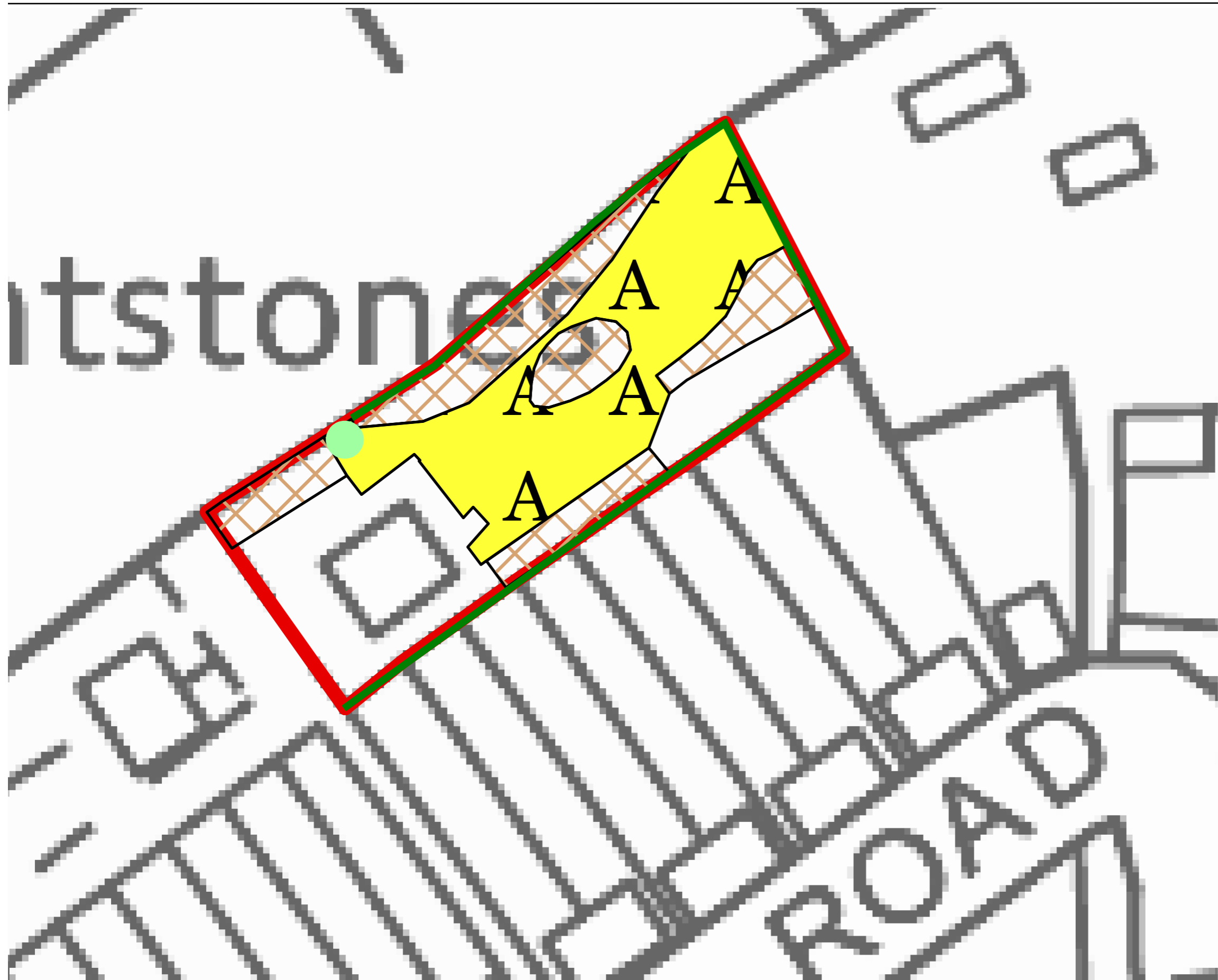
- Implementation of a Construction and Environmental Management Plan (CEMP) to manage site-specific issues relating to the potential impacts of construction on ecological features of interest.
- Offset buffers to protect retained habitats (minimum 10m).
- Use of protective fencing to define construction 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 ponds within 500m 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.
- In light of the potential presence of breeding birds, if possible cutting back or removal of woody vegetation, including trees, shrubs/scrub and hedgerows, as well as disturbance of areas of arable, grassland or ruderal, 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.
- 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

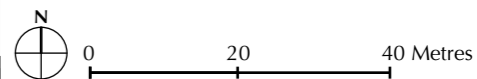
Opportunities for enhancing, restoring and/or creating new habitats as an integral part of a Site's development that can also contribute to the District's wider ecological /green infrastructure network are identified below:

- Positively and appropriately manage retained habitats and features, including mature trees along the Site's boundary.
- Strengthen boundary vegetation, for example by planting appropriate native species to replace non-native species.
- Habitat creation, ideally located adjacent to retained or adjoining habitat, 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.



- KEY**
- Site Assessment Boundary
 - Coniferous Tree
 - Hedge - Intact Species Pool
 - Amenity Grassland
 - Introduced Shrub



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ECOLOGICAL ASSESSMENT	
Settlement/Area:	Horam
Site Address:	Hazel House, The Avenue, Horam
Site Reference Number:	612/3030
Site Summary Description	
The Site comprises a house and garden including small areas of rather disturbed woodland and scrub as well as a small pond. The Site is 0.27ha. in area.	
ECOLOGICAL BASELINE	
Green Infrastructure Context (see Figure 24.1)	
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. There are also a relatively large number of ponds in the Horam area. The Site lies within the village of Horam, with residential development to its south and west. The well-treed disused railway line forms the Site's eastern boundary while the northern boundary opens up onto a predominantly rural landscape of small, hedge-lined fields and woodlands.	
Desk Study : Designated Sites within 1km (See Figure 24.2)	Distance from Site
<ul style="list-style-type: none"> None 	
Desk Study: BAP Priority Habitats within 1km	Distance from Site
<ul style="list-style-type: none"> Ancient & semi-natural woodland – Bridge Farm Shaw Ancient & semi-natural woodland – Runtington / Crock-kiln / Geer's Woods Ancient & semi-natural woodland – Huggett's Farm Shaw Ancient & semi-natural woodland – Furnace Wood Ancient & semi-natural woodland – Sharps Corner Shaw Ancient & semi-natural woodland – Coneyburrow Wood Ancient & semi-natural woodland – Clearhedge Wood Ancient & semi-natural woodland – Toll Wood Ancient & semi-natural woodland – Coylet Farm Shaw Ancient & semi-natural woodland –Long Shaw Ancient & semi-natural woodland – Thunderly Wood Ancient & semi-natural woodland – Hook Farm Shaw Ancient & semi-natural woodland – Bottle Shaw 	<ul style="list-style-type: none"> 340m North 990m North 880m North West 600m West 325m West 500m South West 600m SSW 580m South 870m South 660m SSE 450m East 900m East 500m North East
Desk Study: Protected and Notable Species within 1km	
Protected Species <i>Anguis fragilis</i> Slow worm <i>Eptesicus serotinus</i> Serotine bat <i>Muscardinus avellanarius</i> Hazel dormouse <i>Myotis nattereri</i> Natterer's bat <i>Natrix natrix</i> Grass snake <i>Phyteuma spicatum</i> Spiked Rampion <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
Sussex BAP Species	
<i>Bufo bufo</i>	Common toad
Notable Bird Inventory	
<i>Delichon urbicum</i>	House martin
<i>Hirundo rustica</i>	Swallow
<i>Pandion haliaetus</i>	Osprey
Invasive Alien Species Inventory	
<i>Centranthus ruber</i>	Red valerian
<i>Cotoneaster simonsii</i>	Himalayan cotoneaster
<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>Impatiens glandulifera</i>	Indian balsam
<i>Mustela vison</i>	American mink
<i>Prunus laurocerasus</i>	Cherry laurel
<i>Rhododendron ponticum</i>	Rhododendron
Field Survey: Habitat Description (See Figure 24/612)	
<p>Poor semi-improved grassland – Small species-poor areas in the centre of the Site with variable structure from short (grazed) to tall and tussocky (compact tufts).</p> <p>Amenity grassland – Lawn towards the southern end of the Site, with limited range of typical common and widespread species.</p> <p>Tall ruderal – Scattered areas of nettle and thistles etc.</p> <p>Woodland – Small wooded area on the northern boundary with ash and oak, hazel, elder and holly. Rather disturbed by management and species poor field layer dominated by nettle and ivy but also male fern <i>Dryopteris felix-mas</i>, pendulous sedge <i>Carex pendula</i>, wood avens <i>Geum urbanum</i> and ground ivy <i>Glechoma hederacea</i>.</p> <p>Trees and scrub – scattered trees and scrub, including hazel, ash and bramble.</p> <p>Hedges – species poor and comprising largely of non-native species.</p> <p>Pond – small with little open water but much emergent and marginal vegetation, including yellow iris <i>Iris pseudoacorus</i>, great willowherb <i>Epilobium hirsutum</i>, branched bur-reed <i>Sparganium erectum</i> and soft rush <i>Juncus effusus</i>.</p> <p>Buildings – modern house with pitched and tiled roof and a number of sheds and garages.</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	
No invasive non-native species recorded during the survey.	

Assessment of Potential for Notable and Protected Species

Great crested newts – In addition to the pond within the Site OS maps and aerial images indicate the presence of a number of ponds within 500m of the Site, including one immediately to the north west of the Site. Much of the Site, including the woodland, scrub, tall ruderal and taller grassland and hedges represent suitable terrestrial habitat for great crested newts.

Reptiles – Some potential in areas of taller grassland and tall ruderal, especially in combination with scrub

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

Bats – Mature trees in particular may have potential to be used as roosts. The house appears to have low potential to be used as a roost.

Dormice – Moderate potential in woodland and scrub due to connectivity to adjoining hedges and woodland.

Badgers – Potential for setts within the woodland and scrub, but may also use the Site foraging. However, neither was noted and given the small size of the Site it is unlikely they would have been missed.

Recommendations for Further Survey (and optimal survey timings)

Amphibian (including great crested newt) – (March – June) of pond within the Site and ponds within 500m of the Site, targeting especially those with greater suitability for great crested newts and those closest to 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.

Dormice – (April – November) in suitable habitat.

INDICATIVE ECOLOGICAL APPRAISAL

Low to Moderate – largely house and garden but including small wooded area and pond, which are of value and the 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 wooded area, including mature trees and their features in the northern part of the Site.
- If possible retaining the pond.

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.

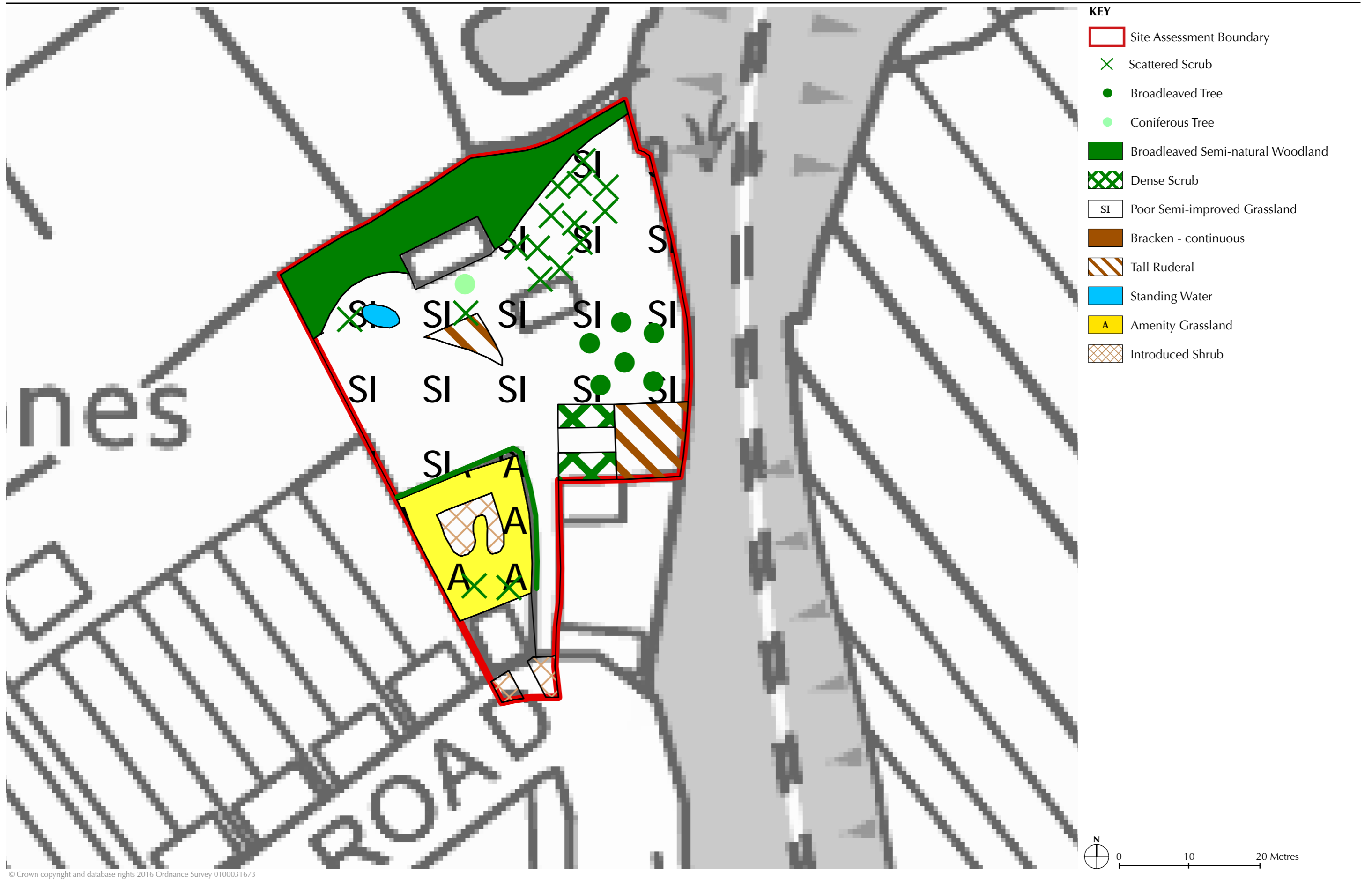
- Implementation of a Construction and Environmental Management Plan (CEMP) to manage site-specific issues relating to the potential impacts of construction on ecological features of interest.
- Offset buffers to protect retained habitats (minimum 10m).
- Use of protective fencing to define construction 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 ponds within 500m 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.
- In light of the potential presence of breeding birds, if possible cutting back or removal of woody vegetation, including trees, shrubs/scrub and hedgerows, as well as disturbance of areas of arable, grassland or ruderal, 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.
- 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 wooded area, mature trees and pond.
- Strengthen boundary vegetation, for example by planting appropriate native species to strengthen existing hedges, as well as creating new ones.
- Habitat creation, ideally located adjacent to retained or adjoining habitat, for example the wooded area along the Site's eastern boundary, 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	
Settlement/Area:	Horam
Site Address:	Land at The Old Brickyard, Chiddingly Road, Horam
Site Reference Number:	614/3030
Site Summary Description	
A 2.89ha mosaic Site comprising areas of scrub and woodland, grassland, ruderal vegetation and buildings and hard standing.	
ECOLOGICAL BASELINE	
Green Infrastructure Context (see Figure 24.1)	
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. There are also a relatively large number of ponds in the Horam area. The Site lies approximately 1.7km south of the main settlement of Horam on the Chiddingly Road, which, along with some existing development, forms the Site's eastern boundary. The Site is bordered to the north and west by a golf course and East Knowle Wood Ancient Woodland, with horse paddocks to the south.	
Desk Study : Designated Sites within 1km (See Figure 24.2)	Distance from Site
<ul style="list-style-type: none"> None 	
Desk Study: BAP Priority Habitats within 1km	Distance from Site
<ul style="list-style-type: none"> Ancient & semi-natural woodland – Clearhedge Wood Ancient & semi-natural woodland – East Knowle Wood Ancient & semi-natural woodland – Coneyburrow Wood Ancient & semi-natural woodland – East Knowle Shaw Ancient & semi-natural woodland – Cocker's Pit Ancient & semi-natural woodland – Rose Bank Farm Shaw Ancient & semi-natural woodland – Highdown Wood Ancient & semi-natural woodland – Swanbrook Wood Ancient & semi-natural woodland – Gamelands Shaw Ancient & semi-natural woodland – Cindergill Wood Ancient & semi-natural woodland – Coggers Shaw Ancient & semi-natural woodland – Horeham Flat Farm Shaw Ancient & semi-natural woodland – Coxlow Farm Shaw Ancient & semi-natural woodland – Coylet Farm Shaw Deciduous Woodland BAP priority habitat (un-named) Orchard BAP priority habitat (un-named) 	<ul style="list-style-type: none"> 150m North Adjacent West 770m North 370m South West 390m South West 470m South 900m South 910m SSE 660m South East 400m South East 675m South East 350m East 750m East 950m ENE Within Site 700m South West
Desk Study: Protected and Notable Species within 1km	
Protected Species <i>Eptesicus serotinus</i> <i>Myotis nattereri</i> <i>Pipistrellus pipistrellus</i> <i>Plecotus auritus</i>	Serotine bat Natterer's bat Common Pipistrelle (45 kHz) bat Brown Long-eared bat

<i>Plecotus</i> sp.	Long-eared bat sp.
Sussex BAP Species	
<i>Bufo bufo</i>	Common toad
<i>Limenitis camilla</i>	White admiral
Notable Bird Inventory	
<i>Delichon urbicum</i>	House martin
<i>Hirundo rustica</i>	Swallow
Invasive Alien Species Inventory	
<i>Centranthus ruber</i>	Red valerian
<i>Eriocheir sinensis</i>	Chinese mitten crab
<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>Petasites fragrans</i>	Winter heliotrope
<i>Rhododendron ponticum</i>	Rhododendron

Field Survey: Habitat Descriptions (See Figure 24/614)

Scrub woodland and trees – much of the Site supports scrub and woodland. The northern part of the Site is largely scrubby in character, though it is developing into woodland and includes mature trees on part of the western boundary. The most abundant woody species are a range of willows, but elder is frequent and there is occasional oak, ash, field maple and poplar. The field layer is species poor and comprises largely of nettle, bramble and ground ivy *Glechoma hederacea*, but male fern *Dryopteris felix-mas* and wood avens *Geum urbanum* are also present. There are also extensive areas of bare ground.

There is a strip of more mature woodland in the south west of the Site, along the frontage with Chiddingly Road. This has a canopy of mature oak and hornbeam as well as ash and field maple. Hazel is the most frequent shrub species, but there is also hawthorn, blackthorn, holly and field maple. The field layer is dominated by bramble and ivy but it does include several Ancient Woodland Indicator Species, including wood sedge *Carex sylvatica*, sweet woodruff *Galium odoratum* black bryony *Tamus communis* and bluebell *Hyacinthoides non-scripta*, as well as male fern and herb Robert *Geranium robertianum*. This area appears to have extended northwards in recent years.

Apart from the main blocks of scrub and woodland there are scattered trees and scrub throughout the rest of the Site, including along access roads, around the edges of yard areas and among ruderal vegetation.

Poor semi-improved grassland – Largely occurring in combination with the tall ruderal habitats, there are some small areas of species poor grassland beside buildings and access roads. There is a small glade within the northern block of scrub and woodland with abundant fleabane *Pulicaria dysenterica*, frequent greater bird's foot trefoils *Lotus pedunculatus* as well as marsh thistle *Cirsium plustre*, creeping buttercup *Ranunculus repens*, square-stalked St John's wort *Hypericum tetrapterum*, and common agrimony *Agrimonia eupatoria*.

Tall ruderal – Is scattered across the Site but there are larger stands in open areas among and beside the scrub and woodland in the northern part of the Site, as well as around the edges of yard areas, among stored items and materials and piles of debris etc. There is an area to the north of the woodland in the south west of the Site which appears to comprise a series of old gardens or allotments which include areas of tall ruderal, tall unmanaged grassland, scattered scrub and remnant garden plants.

Ditch – There is a wet or damp ditch between the large area of scrub in the northern part of the Site and the adjoining track. This supports species including soft rush *Juncus effusus*, greater willowherb *Epilobium hirsutum*, water mint *Mentha aquatica* and fleabane.

Buildings – A range of buildings consisting largely of industrial sheds, but also including, for example, an old brick shed 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

No invasive non-native species recorded during the survey.

Assessment of Potential for Notable and Protected Species

Great crested newts – There are no ponds within the Site. However, OS maps indicate the presence of multiple ponds within 500m of the Site. The entire site, with the exclusion of the open yard areas and most of the buildings, represents suitable terrestrial habitat for great crested newts and there is therefore potential for them to occur within it during their terrestrial phase.

Reptiles – Potential in areas of structurally diverse grassland, tall ruderal and among piles of rubble and debris etc.

Breeding birds – In woodland, scrub and trees.

Bats – Trees and mature trees in particular, with features such as cracks and cavities, for example including many within the mature trees and some of the buildings, have potential to be used as roosts. Activity, including foraging and commuting, is likely throughout but especially along hedges and woodland edge.

Dormice – High potential in woodland and scrub due to connectivity to wider network of hedges and scrub.

Badgers – Potential for setts within the hedges and adjoining woodland, but with or without setts badgers may also use almost any part of the 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 ponds within 500m of the Site, targeting especially those with greater suitability for great crested newts and those closest to the Site.

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

Breeding birds – of scrub and 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.

INDICATIVE ECOLOGICAL APPRAISAL

Moderate – although not florally rich mosaic sites of this type have high potential to support a number of the notable/protected species that may be present (as discussed above). The woodland strip in the south west of the Site is probably the most valuable feature.

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 to woodland areas in the south west and west of the Site.
- 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.
- 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.
- Buffer the woodland strip along the south west boundary of the Site.
- If great crested newts are found in ponds within 500m 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).
- In light of the potential presence of breeding birds, if possible cutting back or removal of woody vegetation, including woodland, trees and scrub, 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.
- If dormice are found to be present the retention and appropriate buffering of woodland (as noted above).
- Development should seek to avoid any prime foraging grounds identified through the badger survey, avoid severance to commuting corridors within territories and avoid any construction works within at least 30m of the nearest badger setts.

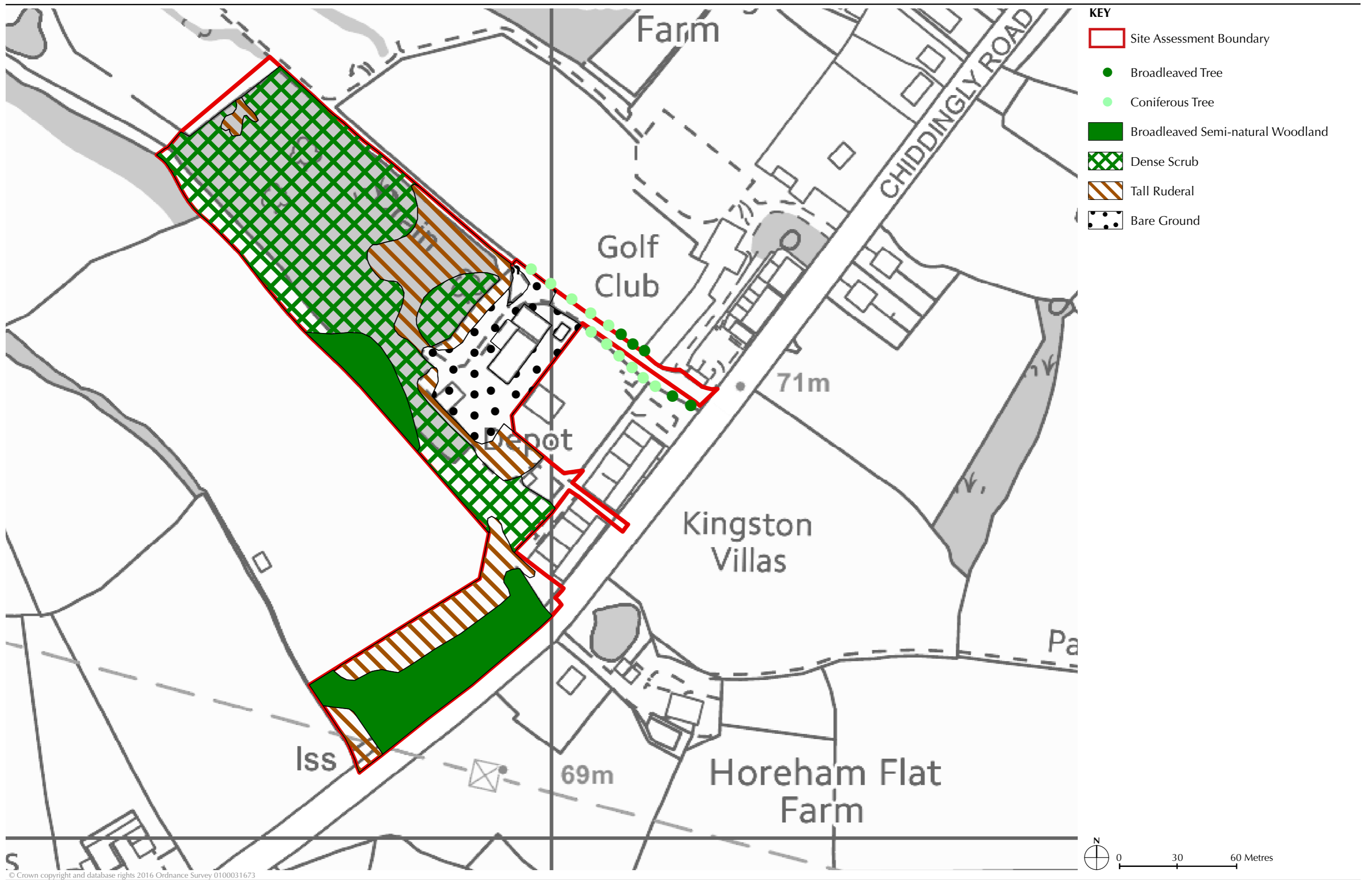
Potential Enhancement Opportunities

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 woodland areas in the south west of the Site.
- Strengthen boundary vegetation by planting appropriate native species.
- Habitat creation, ideally located adjacent to retained or adjoining habitat 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.



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ECOLOGICAL ASSESSMENT													
Area:	Horam												
Site Name:	Linda House, Little London Road, Horam												
Site Reference Number:	661/3030												
Site Summary Description													
<p>A 3.77ha Site comprised of several distinct parts or habitats, a house and garden, including a pond, two moderately species rich grassland fields separated by a species-rich hedge with mature trees and a small area of Ancient Woodland and scrub. The Site also adjoins a larger area of Ancient Woodland to the north.</p>													
ECOLOGICAL BASELINE													
Green Infrastructure Context (see Figure 24.1)													
<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. There are also a relatively large number of ponds in the Horam area. The Site lies to the north of the main settlement of Horam. It is predominantly surrounded by countryside, although a number of residential properties and associated grounds border the Site to the west. Much of the Site's northern boundary immediately adjoins Bridge Farm Shaw Ancient Woodland (some of which is within the Site's boundary), beyond which lies a mosaic of variably sized, hedge-lined fields.</p>													
Desk Study : Designated Sites within 1km (See Figure 24.2)	Distance from Site												
<ul style="list-style-type: none"> • None 													
Desk Study: BAP Priority Habitats within 1km	Distance from Site												
<ul style="list-style-type: none"> • Ancient & semi-natural woodland – Bridge Farm Shaw • Ancient & semi-natural woodland – Runtington / Crock-kiln Geer's Woods • Ancient & semi-natural woodland – Huggetts Farm Shaw • Ancient & semi-natural woodland – Furnace Wood • Ancient & semi-natural woodland – Coneyburrow Wood • Ancient & semi-natural woodland – Clearhedge Wood • Ancient & semi-natural woodland – Toll Wood • Ancient & semi-natural woodland – Long Shaw • Ancient & semi-natural woodland –Thunderly Wood • Ancient & semi-natural woodland – Hook Farm Shaw • Ancient & semi-natural woodland – Bottle Shaw 	<ul style="list-style-type: none"> • Within Site & Adj. N • 740m North • 550m North West • 310m West • 470m South West • 650m South • 800m SSE • 890m South East • 370m East • 850m East • 490m East 												
Desk Study: Protected and Notable Species within 1km													
<p>Protected Species</p> <table> <tbody> <tr> <td><i>Anguis fragilis</i></td> <td>Slow worm</td> </tr> <tr> <td><i>Eptesicus serotinus</i></td> <td>Serotine bat</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> </tbody> </table>		<i>Anguis fragilis</i>	Slow worm	<i>Eptesicus serotinus</i>	Serotine bat	<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>Anguis fragilis</i>	Slow worm												
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<i>Myotis nattereri</i>	Natterer's bat												
<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 pygmaeus</i>	Soprano pipistrelle (55kHz) bat
<i>Pipistrellus</i> sp.	Pipistrelle sp. bat
<i>Plecotus auritus</i>	Brown Long-eared bat
<i>Plecotus</i> sp.	Long-eared bat sp.
<i>Triturus cristatus</i>	Great crested newt
Sussex BAP Species	
<i>Bufo bufo</i>	Common toad
<i>Erinaceus europaeus</i>	European hedgehog
Notable Bird Inventory	
<i>Delichon urbicum</i>	House martin
<i>Hirundo rustica</i>	Swallow
<i>Pandion haliaetus</i>	Osprey
Invasive Alien Species Inventory	
<i>Centranthus ruber</i>	Red valerian
<i>Cotoneaster horizontalis</i>	Wall cotoneaster
<i>Cotoneaster simonsii</i>	Himalayan cotoneaster
<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>Impatiens glandulifera</i>	Indian balsam
<i>Mustela vison</i>	American mink
<i>Prunus laurocerasus</i>	Cherry laurel
<i>Rhododendron ponticum</i>	Rhododendron
Field Survey: Habitat Description (See Figure 24/661)	
<p>Semi-improved neutral grassland – Most of the grassland within the two fields is moderately species rich, with a range of species typical of neutral grassland. Frequent grasses include Yorkshire Fog <i>Holcus lanatus</i>, common bent <i>Agrostis capillaris</i>, sweet vernal-grass <i>Anthoxanthum odoratum</i>, meadow barley <i>Hordeum secalinum</i> and tall fescue <i>Schodenus arundinacea</i>. Forb content is quite high, around 50%, with frequent meadow buttercup <i>Ranunculus acris</i>, greater bird's foot trefoils <i>Lotus pedunculatus</i>, meadow vetchling <i>Lathyrus pratensis</i>, red clover <i>Trifolium pratense</i> and common knapweed <i>Centaurea nigra</i>. Also present are burnet saxifrage <i>Pimpinella saxifraga</i> and sneezewort <i>Achillea ptarmica</i>, both characteristic of less 'improved' grasslands. Other species include cinquefoil <i>Potentilla reptans</i>, tufted vetch <i>Vicia cracca</i> and self-heal <i>Prunella vulgaris</i>. Sward structure was variable and appears dependent on the level of grazing (by horses) different areas have recently received.</p> <p>Poor semi-improved grassland – The southern part of the western field appears less rich and more eutrophic, with forb content comprising largely of creeping buttercup <i>Ranunculus repens</i> and white clover <i>Trifolium repens</i>.</p> <p>Tall ruderal – There is a narrow strip of tall ruderal, which included frequent purple loosestrife <i>Lythrum salicaria</i>, along the northern edge of the western field, adjoining the woodland. There is a further small stand at the eastern end of the same field, beside the hedge.</p> <p>Hedges – The hedges dividing the two fields, as well as along the southern boundary of the western field are species-rich, with hawthorn, blackthorn, field maple, hazel, spindle and willow, as well as mature oak, ash and hornbeam trees. The field layer includes woodland species such as dog's mercury <i>Mercurialis perennis</i>, false brome <i>Brachypodium sylvaticum</i> and black bryony <i>Tamus communis</i>. There are species-poor conifer hedges west of the house.</p> <p>Woodland and scrub – Bridge Farm Shaw Ancient Woodland, a small area on sloping and uneven ground at the eastern end of the Site. It has a canopy of oak and hornbeam and hazel and hornbeam are the most frequent shrub species, but field maple, hawthorn and holly are occasional. The field layer</p>	

appears moderately species rich and includes a number of Ancient Woodland Indicator Species (AWIS), including bluebell *Hyacinthoides non-scripta*, dog's mercury, primrose *Primula vulgaris*, red currant *Ribes rubrum* and wood and remote sedges *Carex sylvatica* and *remota*.

Trees – a treeline, comprising a mix of mature ash, oak, poplar and conifers is present on the western boundary, between Little London Road and the woodland beyond the Site.

Garden – comprising a mosaic of species poor amenity grassland, planted beds and borders and specimen trees and shrubs.

Pond(s) – a pond is set within the garden with approximately 90% open water. There is fringing emergent and marginal vegetation, including yellow iris *Iris pseudoacorus*, pendulous sedge *Carex pendula* and purple loosestrife *Lythrum salicaria*. A number of ducks appear to be resident.

OS maps also indicate the presence of a pond within the woodland. However, although a damp depression was found, it contained no standing water and associated marginal vegetation was limited to pendulous and remote sedges. This suggests that it is likely to be at most seasonal or ephemeral in nature. This is confirmed by observations of the landowner. The depression is heavily shaded and filled with woody debris and leaf litter.

Buildings – included the main house and a more modern single storey house, both with pitched and tiled roofs, as well as shed(s)/stable(s)

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 during the survey.

Assessment of Potential for Notable and Protected Species

Great crested newts – In addition to the pond(s) within the Site OS maps indicate the presence of a number of other ponds within 500m of the Site. The entire Site apart from the northern grassland field represents suitable terrestrial habitat for great crested newts within the Site.

Reptiles – some potential along boundaries, such as the northern boundary of the western field

Breeding birds – in woodland, hedges and trees.

Bats – Trees and mature trees in particular, with features such as cracks and cavities, for example including many within the woodland and also within the garden and hedges, have potential to be used as roosts, as does the main house. The single-storey house appears to have much more limited potential to support bat roosts. Activity, including foraging and commuting, is likely throughout but especially along hedges and woodland edge.

Dormice – High potential in the woodland and hedges due to connectivity to the wider habitat network.

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

Recommendations for Further Survey (and optimal survey timings)

Botanical – (April-July) – of woodland and richer areas of grassland.

Amphibian (including great crested newt) – (March – June) of pond(s) within the Site and ponds within 500m of the Site, targeting especially those with greater suitability for great crested newts and those closest to the Site.

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

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

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

Dormice – (April – November) in suitable habitat (woodland and hedges).
Badgers – (Year round but Spring / Autumn optimal) of whole site.

INDICATIVE ECOLOGICAL APPRAISAL

Moderate to High value – includes (and adjoins) Ancient Woodland, moderately species rich grassland and pond(s). Habitats and features present 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 the Ancient Woodland within and adjoining the Site, as well as the hedges and at least a proportion, and ideally all, of the more species-rich 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.

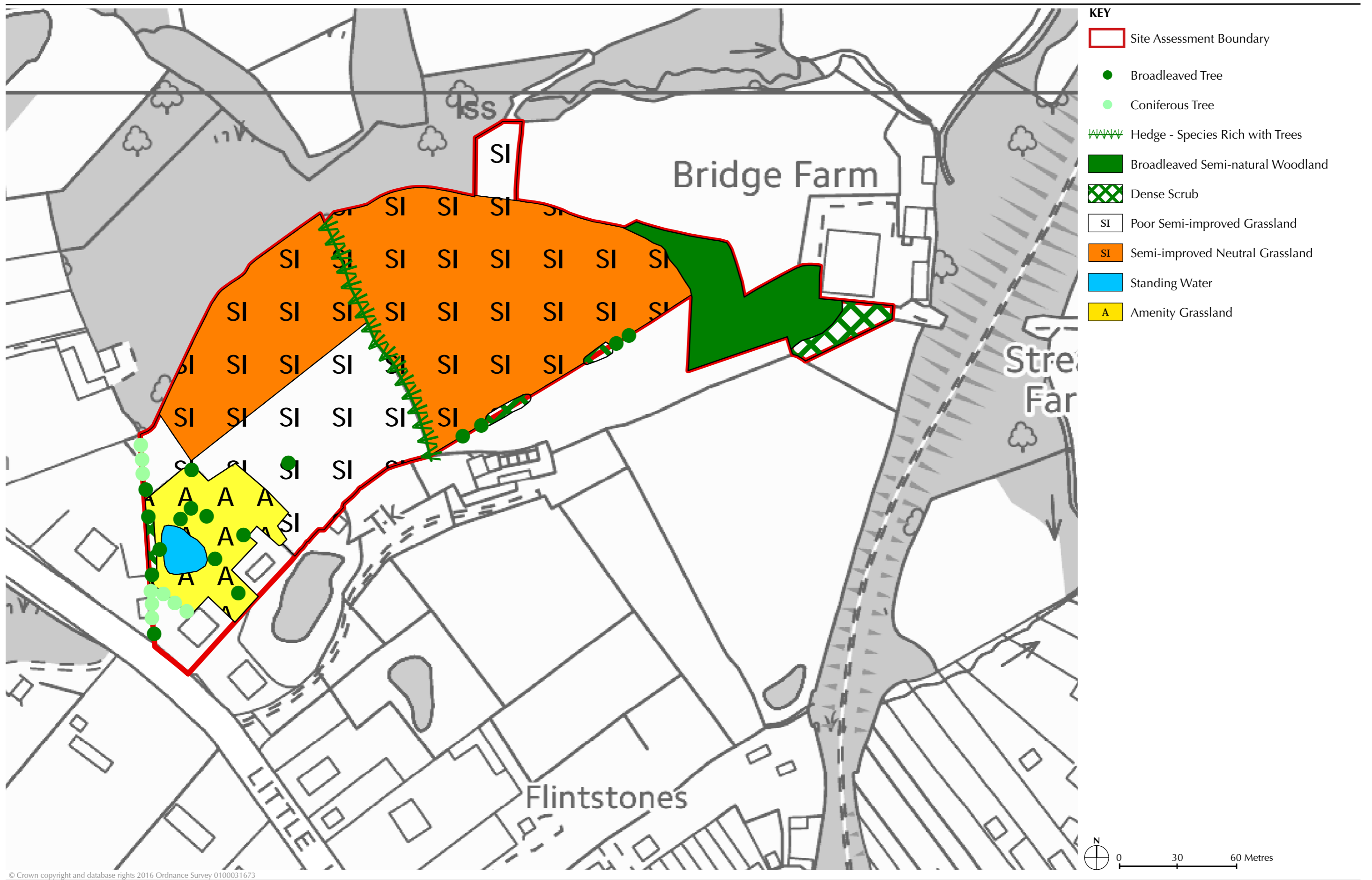
- Implementation of a Construction and Environmental Management Plan (CEMP) to manage site-specific issues relating to the potential impacts of construction on ecological features of interest.
- Offset buffers to protect retained habitats (minimum 10m).
- Use of protective fencing to define construction 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.
- Buffer the Ancient Woodland within and adjoining the Site, as well as the hedges and at least a proportion, and ideally all, of the more species-rich grassland.
- If great crested newts are found to be present in the pond(s) within the Site, retention of pond(s) 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 absent from this pond but present in ponds within 500m of the Site appropriate measures will need to be put in place to prevent harm to them during their terrestrial phase, for example herb 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).
- 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.
- If dormice are found to be present the retention and appropriate buffering of woodland and hedges (as noted above).
- Development should seek to avoid any prime foraging grounds identified through the badger survey, avoid severance to commuting corridors within territories and avoid any construction works within at least 30m of the nearest badger setts.

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 Ancient Woodland , hedges, mature trees and, insofar as it may possible to retain it, the more species-rich grassland.
- Strengthen boundary vegetation, for example by planting appropriate native species to strengthen existing hedges, as well as creating new ones.
- Habitat creation, ideally located adjacent to retained or adjoining habitat, for example the boundary with the Ancient Woodland, 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																			
Settlement/Area:	Horam																		
Site Address:	Land at Spiers Farm, Horam																		
Site Reference Number:	686/3030																		
Site Summary Description																			
A varied 4.08ha Site which includes a number of rather species poor grassland fields, species rich hedges, including mature trees, scrub and ruderal as well as a garden area with pond.																			
ECOLOGICAL BASELINE																			
Green Infrastructure Context (see Figure 24.1)																			
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. There are also a relatively large number of ponds in the Horam area. The Site lies to the north of the main Horam settlement, bordered to the south and west by existing development. The well-treed disused railway line (the Cuckoo Trail) forms the eastern boundary whilst to the north lies a mosaic of hedge-lined fields and woodland.																			
Desk Study : Designated Sites within 1km (See Figure 24.2)	Distance from Site																		
<ul style="list-style-type: none"> • None 																			
Desk Study: BAP Priority Habitats within 1km	Distance from Site																		
<ul style="list-style-type: none"> • Ancient & semi-natural woodland – Bridge Farm Shaw • Ancient & semi-natural woodland – Runtington / Crock-kiln Geer’s Woods • Ancient & semi-natural woodland – Huggetts Farm Shaw • Ancient & semi-natural woodland – Furnace Wood • Ancient & semi-natural woodland – Coneyburrow Wood • Ancient & semi-natural woodland – Clearhedge Wood • Ancient & semi-natural woodland – Toll Wood • Ancient & semi-natural woodland – Coylet Farm Shaw • Ancient & semi-natural woodland – Long Shaw • Ancient & semi-natural woodland –Thunderly Wood • Ancient & semi-natural woodland – Hook Farm Shaw • Ancient & semi-natural woodland – Bottle Shaw 	<ul style="list-style-type: none"> • 100m North • 800m North • 650m North West • 425m West • 470m South West • 650m South • 650m SSE • 930m SSE • 710m South East • 370m East • 850m East • 490m East 																		
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<i>Pipistrellus</i> sp.	Pipistrelle sp. bat
<i>Plecotus auritus</i>	Brown Long-eared bat
<i>Plecotus</i> sp.	Long-eared bat sp.
<i>Triturus cristatus</i>	Great crested newt
Sussex BAP Species	
<i>Bufo bufo</i>	Common toad
<i>Erinaceus europaeus</i>	European hedgehog
Notable Bird Inventory	
<i>Delichon urbicum</i>	House martin
<i>Hirundo rustica</i>	Swallow
<i>Pandion haliaetus</i>	Osprey
Invasive Alien Species Inventory	
<i>Centranthus ruber</i>	Red valerian
<i>Cotoneaster horizontalis</i>	Wall cotoneaster
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<i>Hyacinthoides non-scripta</i> x <i>hispanica</i> (= <i>H. x massartiana</i>)	Hybrid bluebell
<i>Impatiens glandulifera</i>	Indian balsam
<i>Mustela vison</i>	American mink
<i>Prunus laurocerasus</i>	Cherry laurel
<i>Rhododendron ponticum</i>	Rhododendron
Field Survey: Habitat Description (See Figure 24/686)	
<p>Poor semi-improved grassland – There are two main grassland areas separated by a hedge. Most of the western area is heavily grazed by horses with a very short sward. The eastern area appears to have been unmanaged for some time and has a generally tall and tussocky (compact tufts of grass) sward. The western area is poorer, with abundant Yorkshire Fog <i>Holcus lanatus</i> and common bent <i>Agrostis capillaris</i> and frequent perennial rye-grass <i>Lolium perenne</i>. Forbs comprise a very limited range of species, with frequent creeping buttercup <i>Ranunculus repens</i> and greater bird's foot trefoils <i>Lotus pedunculatus</i>. Creeping thistle <i>Cirsium arvense</i> and broadleaved dock <i>Rumex obtusifolius</i> are occasional and locally frequent.</p> <p>The eastern area is somewhat richer, though patchy, with, in addition to the species found in the western area, frequent tufted hair grass <i>Deschampsia cespitosa</i>, small cat's tail <i>Phleum bertolonii</i>, sweet vernal-grass <i>Anthoxanthum odoratum</i> and cocksfoot <i>Dactylis glomerata</i>. Hairy sedge <i>Carex hirta</i> is also locally frequent. Additional forbs include meadow vetchling <i>Lathyrus pratensis</i>, common sorrel <i>Rumex acetosa</i>, ribwort plantain <i>Plantago lanceolata</i>, wild angelica <i>Angelica sylvestris</i>, hoary ragwort <i>Senecio erucifolia</i> and common knapweed <i>Centaurea nigra</i>. An L-shaped area in the north west of this grassland has been planted with mixed native trees.</p> <p>Further smaller areas of grassland are located in the north of the Site and in the garden area around the pond. These appear to be species poor, with a limited range of the species present in the other grasslands.</p> <p>Tall ruderal – Includes several areas, for example beside the access drive and around derelict buildings and areas of cultivation in the north of the Site. It occurs as a mosaic with scrub, especially bramble as well as tall tussocky grassland. These areas also include spoil and rubble piles and similar features.</p> <p>Trees and scrub – Several areas, often in a mosaic with tall ruderal, for example beside the access drive and around derelict buildings and areas of cultivation in the north of the Site. The garden area includes numerous native and non-native trees and shrubs and its northern boundary is formed by a line of conifers.</p> <p>Hedges – Are species rich with oak, ash, field maple, hawthorn, blackthorn, hornbeam and willow and included numerous mature trees, including specimens with veteran characteristics.</p>	

Pond – In the garden area, is largely open water which is very turbid and green with algae, appearing very eutrophic. It appears to be heavily stocked with fish, with much supplementary feeding taking place. Marginal vegetation is limited, with some yellow iris *Iris pseudoacorus*, pendulous sedge *Carex pendula* and soft rush *Juncus effusus*. There are also scattered willows.

Buildings – there are a small number of shed as well as derelict brick buildings.

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 during the survey.

Assessment of Potential for Notable and Protected Species

Great crested newts – In addition to the pond(s) within the Site OS maps indicate the presence of a number of other ponds within 500m of the Site. The entire Site apart from the northern grassland field represents suitable terrestrial habitat for great crested newts within the Site.

Reptiles – Potential throughout much of the Site excluding the heavily grazed grassland, for example in the eastern field as well as around the derelict buildings etc. in the north of the Site and along the access track.

Breeding birds – In hedges, trees and scrub.

Bats – Trees and mature trees in particular, with features such as cracks and cavities, for example including many within the garden and the Site's boundaries, have potential to be used as roosts. The buildings appear to be unsuitable as roosts. Activity, including foraging and commuting, is likely throughout but especially along hedges and woodland edge.

Dormice – High potential in hedges and scrub due to connectivity to adjoin hedges and woodland.

Badgers – Potential for setts within the hedges and adjoining woodland, but with or without setts badgers may also use almost any part of the 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 pond(s) within the Site and ponds within 500m of the Site, targeting especially those with greater suitability for great crested newts and those closest to 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 – includes species rich hedges with mature and potentially veteran trees and at least some of the grassland retains some diversity. Habitats and features present 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 the hedges and mature trees and their features as well as a proportion of the richer grassland in the eastern field.
- Buffering the adjoining woodland on the eastern 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.

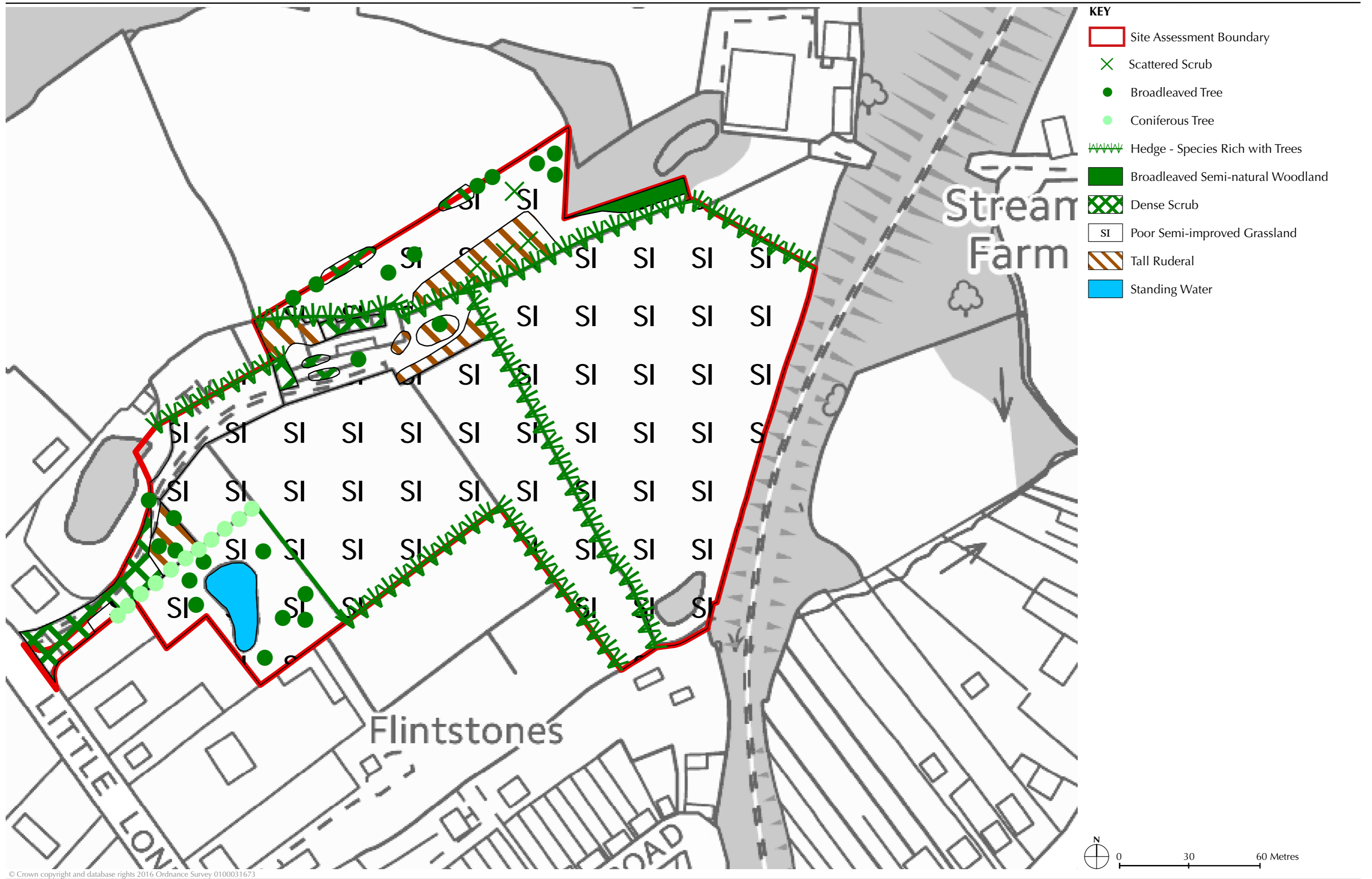
- Implementation of a Construction and Environmental Management Plan (CEMP) to manage site-specific issues relating to the potential impacts of construction on ecological features of interest.
- Offset buffers to protect retained habitats (minimum 10m).
- Use of protective fencing to define construction 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.
- Buffer the hedges and mature trees and their features as well as a proportion of the richer grassland in the eastern field.
- If great crested newts are found to be present in the pond(s) within the Site, retention of pond(s) 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 absent from this pond but present in ponds within 500m 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).
- 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.
- If dormice are found to be present the retention and appropriate buffering of woodland (as noted above).

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

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 hedges and mature trees and their features as well as a proportion of the richer grassland in the eastern field.
- Strengthen boundary vegetation, for example by planting appropriate native species to strengthen existing hedges, as well as creating new ones.
- Habitat creation, ideally located adjacent to retained or adjoining habitat, for example the boundary with the disused railway line or surrounding residential properties, 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.



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ECOLOGICAL ASSESSMENT													
Settlement/Area:	Horam												
Site Address:	Land at Sharps Corner, Little London Road, Horam												
Site Reference Number:	758/3030												
Site Summary Description													
A 4.39ha Site comprising a house and garden separated by a species rich hedge from a species poor grassland field. It also includes a section of Sharps Corner Shaw Ancient Woodland with a seasonal pond.													
ECOLOGICAL BASELINE													
Green Infrastructure Context (see Figure 24.1)													
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. There are also a relatively large number of ponds in the Horam area. The Site lies on the north western edge of Horam, in the angle of A267 Little London Road and Furnace Lane. To the south east is Horam, with first residential properties set in large gardens and then denser developed areas near the centre of the settlement. Elsewhere, apart from some low density residential along the A267 there is open country of fields with hedges and woodland.													
Desk Study : Designated Sites within 1km (See Figure 24.2)	Distance from Site												
<ul style="list-style-type: none"> None 													
Desk Study: BAP Priority Habitats within 1km	Distance from Site												
<ul style="list-style-type: none"> Ancient & semi-natural woodland – Sharps Corner Shaw Ancient & semi-natural woodland – Bridge Farm Shaw Ancient & semi-natural woodland – Furnace Wood Ancient & semi-natural woodland – Stumlet Wood Ancient & semi-natural woodland – Stumlet Gill Ancient & semi-natural woodland – Roughland Wood 2 Ancient & semi-natural woodland – Roughland Wood Ancient & semi-natural woodland – Coneyburrow Wood Ancient & semi-natural woodland – Clearhedge Wood Ancient & semi-natural woodland –Toll Wood Ancient & semi-natural woodland – Long Shaw Ancient & semi-natural woodland – Thunderly Wood Ancient & semi-natural woodland – Bottle Shaw 	<ul style="list-style-type: none"> Within Site & adjacent 175m North 120m North 350m West 640m West 730m West 960m West 350m South 590m South 725m South East 940m South East 820m East 930m North East 												
Desk Study: Protected and Notable Species within 1km													
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<i>Hirundo rustica</i>	Swallow
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<i>Hyacinthoides non-scripta</i> x <i>hispanica</i> (= <i>H. x massartiana</i>)	Hybrid bluebell
<i>Mustela vison</i>	American mink
<i>Prunus laurocerasus</i>	Cherry laurel
<i>Rhododendron ponticum</i>	Rhododendron
Field Survey: Habitat Description (See Figure 24/758)	
<p>Amenity grassland – Species poor lawns comprising typical common and widespread species.</p> <p>Poor semi-improved grassland – Is very species poor. That in the east of the Site, forming part of the wider garden area and apparently regularly mown, is dominated by Yorkshire Fog <i>Holcus lanatus</i> and common bent <i>Agrostis capillaris</i> with occasional nettle and creeping thistle <i>Cirsium arvense</i>. Yorkshire Fog <i>Holcus lanatus</i> and common bent are also the most abundant grasses in the field in the west of the Site, although crested dog's tail <i>Cynosorus cristatus</i> is also frequent. Forb content is very low, approximately 10%. The only frequent species is white clover <i>Trifolium repens</i> and creeping and meadow buttercup <i>Ranunculus repens</i> and <i>acris</i> and common mouse-ear <i>Cerastium fontanum</i> are occasional. Nettle is locally abundant. It is a short and quite homogenous sheep-grazed sward.</p> <p>Woodland – Comprises a section of Sharps Corner Shaw Ancient Woodland. The canopy is of oak and hornbeam but wild cherry is also present. Hazel is the most abundant shrub species, but holly is frequent and field maple and rose are occasional. The field layer is quite species rich and includes a number of Ancient Woodland Indicator Species (AWIS), such as polypody <i>Polypodium vulgare</i>, wood and remote sedges <i>Carex sylvatica</i> and <i>remota</i>, primrose <i>Primula vulgaris</i>, dog's mercury <i>Mercurialis perennis</i>, sanicle <i>Sanicula europaea</i>, wood speedwell <i>Veronica montana</i>, red currant <i>Ribes rubrum</i> and bluebell <i>Hyacinthoides non-scripta</i>. Other species include male fern <i>Dryopteris felix-mas</i>, false brome <i>Brachypodium sylvaticum</i>, bramble, herb Robert <i>Geranium robertianum</i>, broadleaved willowherb <i>Epilobum monatum</i>, ivy, enchanter's nightshade <i>Circea lutetiana</i> and nettle.</p> <p>Trees – There are a number of mostly non-native mature trees, but also including an ash, within the wider garden area in the east of the Site. There are also a number of young native and non-native trees.</p> <p>Hedges – The hedge dividing the field in the west from the house and garden area is species rich, with holly, hornbeam, hazel and blackthorn with mature trees of ash, hornbeam and field maple. There is another species rich hedge on the southern boundary of the garden area with mature oaks. The hedge on the southern boundary of the field is derelict and very gappy and there is a species poor hedge of non-native cypress on the eastern boundary.</p> <p>Ponds – There are two depressions within Sharps Corner Shaw Ancient Woodland at or near TN1. At the time of the survey neither contains any water and both are quite heavily shaded. The northern is larger and from its vegetation and appearance seems to hold water for longer. Much is bare mud but there is</p>	

locally abundant yellow iris *Iris pseudoacorus* and pendulous sedge *Carex pendula* as well as remote sedge, soft rush *Juncus effusus*, woody nightshade *Solanum dulcamara* and marsh bedstraw *Galium palustre*. It is fringed with crack willow.

The southern depression contains patchy pendulous sedge and is likely to contain water for only quite short periods.

Buildings – Includes a house with pitched and tiled roof and a number of outbuildings.

Field Survey: Notable 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

Rhododendron and cherry laurel – present in the woodland

Assessment of Potential for Notable and Protected Species Presence

Great crested newts – In addition to the pond within the Site there are ponds at Manor Farm, approximately 300m to the south east, although these are heavily stocked with fish, which reduces their suitability for great crested newts. OS maps also indicate the presence of a ponds beside Coneyburrow Wood, from approximately 300m south of the Site, and a pond in a garden just over 300m to the north. However, these ponds are relatively distant from the Site, with limited habitat connectivity, barriers to dispersal, such as Furnace Lane to the north and plentiful suitable terrestrial habitat nearby. Woodland and hedges, for example, represent suitable terrestrial habitat for great crested newts within the Site.

Reptiles – Low potential due to very limited suitable habitat, such as some tall grassland and log piles beside the hedge dividing the eastern and western parts of the Site.

Breeding birds – In woodland, trees and hedges.

Bats – Trees and mature trees in particular, with features such as cracks and cavities, for example including many within the woodland and also within the garden and hedges, have potential to be used as roosts. The house may also have potential for roosts. Activity, including foraging and commuting, is likely throughout but especially around woodland, hedges and trees.

Dormice – Moderate to high potential in woodland and hedges due to connectivity to adjoining woodland.

Badgers – Potential for setts within the woodland and hedges, 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

Amphibian (including great crested newt) – (March – June) of the pond within the Site.

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

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

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

Moderate value – the Ancient Woodland, species rich hedges and native mature trees are of at least moderate value. The grassland and garden are of low value. The Sites habitats and features have moderate to 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 Ancient Woodland within and adjoining the Site
- Retaining and buffering the species rich hedges, including 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.

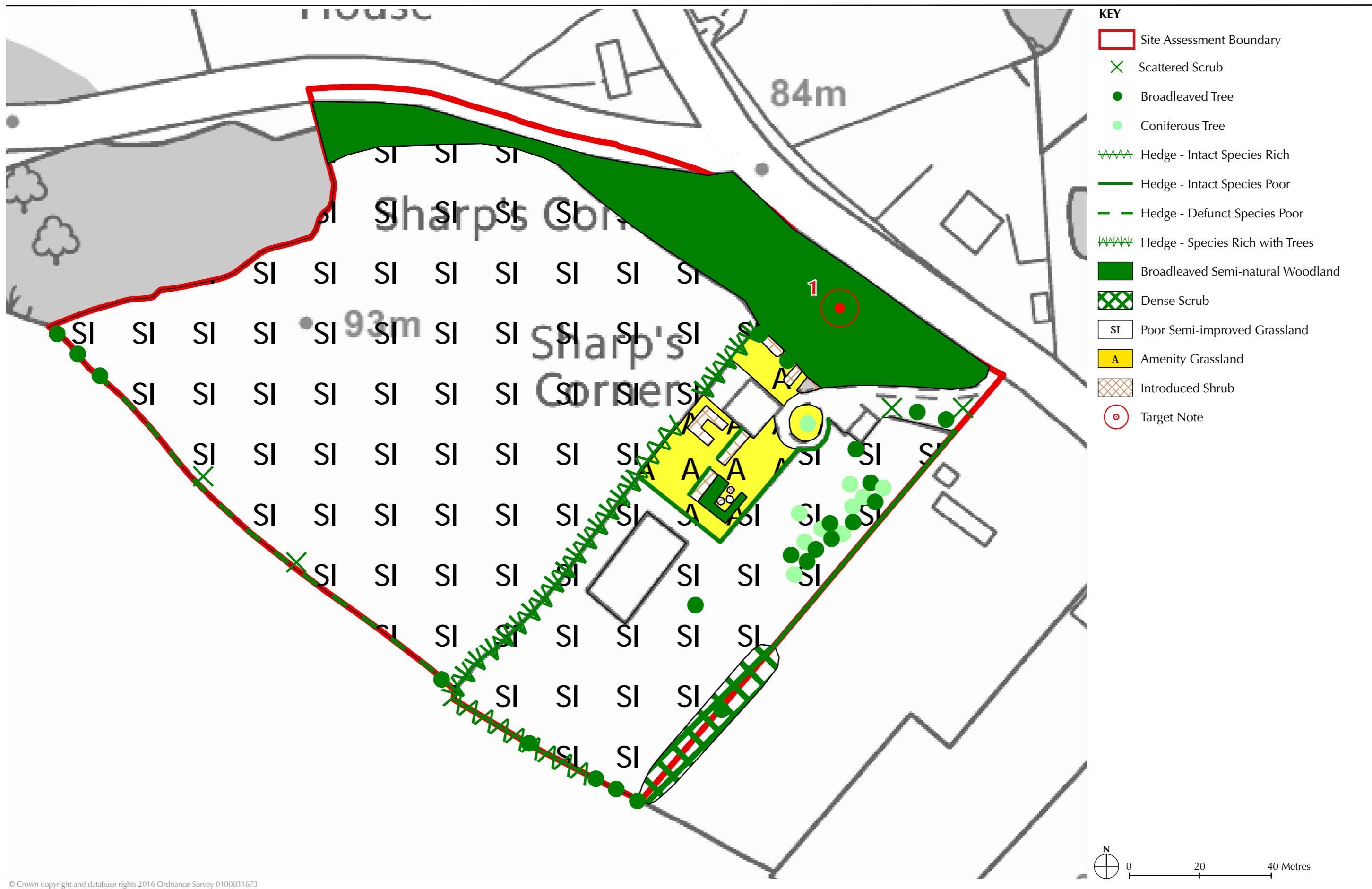
- Implementation of a Construction and Environmental Management Plan (CEMP) to manage site-specific issues relating to the potential impacts of construction on ecological features of interest.
- Offset buffers to protect retained habitats (minimum 10m).
- Use of protective fencing to define construction 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. Under a Natural England European Protected Species licence other measures to prevent harming or killing them and to safeguard their conservation status should be put in place, 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.

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 and mature trees.
- Strengthen boundary vegetation, for example by gapping up the hedges on the southern boundary and by replacing the species poor non-native hedge on the eastern boundary with appropriate native species.
- After further survey and a better understanding of its condition, consider measures to enhance the water holding capacity of the pond and cut back surrounding vegetation, such as willows, to increase light penetration.
- Remove Rhododendron and cherry laurel from the woodland.
- Habitat creation, ideally located adjacent to retained or adjoining habitat, for example beside the woodland in the north 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:	Horam
Site Address:	Land at Cauldavon, Horebeech Lane, Marle Green, Horam
Site Reference Number:	830/3030
Site Summary Description	
Largely comprises of very species poor improved grasslands but also includes a species rich hedge, house and garden and a very small section of woodland, totalling 1.81ha.	
ECOLOGICAL BASELINE	
Green Infrastructure Context (see Figure 24.1)	
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. There are also a relatively large number of ponds in the Horam area. The Site lies about 1km to the east of the centre of Horam, on Horebeech Lane. The southern and eastern boundaries are bordered by a small number of residential properties and associated grounds, and a small lane. To the north and west of the Site lie hedge-lined fields and small woodlands.	
Desk Study : Designated Sites within 1km (See Figure 24.2)	Distance from Site
<ul style="list-style-type: none"> None 	
Desk Study: BAP Priority Habitats within 1km	Distance from Site
<ul style="list-style-type: none"> Ancient & semi-natural woodland – Wadron Gill Ancient & semi-natural woodland – Hook Farm Shaw 3 Ancient & semi-natural woodland – Hook Wood Ancient & semi-natural woodland – Hook Farm Shaw 2 Ancient & semi-natural woodland – Hook Farm Shaw Ancient & semi-natural woodland – Thunderly Wood Ancient & semi-natural woodland – Long Shaw Ancient & semi-natural woodland – Toll Wood Ancient & semi-natural woodland – Coylet Farm Shaw Ancient & semi-natural woodland – Coylet Farm Shaw 2 Ancient & semi-natural woodland – Marle Green Shaw 3 Ancient & semi-natural woodland – Marle Green Shaw Ancient & semi-natural woodland – Raven Shaw Ancient & semi-natural woodland – Clappers Wood Ancient & semi-natural woodland – Ballssocks Shaw Deciduous Woodland BAP priority habitat 	<ul style="list-style-type: none"> 170m North 610m North 730m North 760m North 770m North 870m North 310m West 580m West 370m WSW 530m South West 200m South 390m South 630m South 690m East 960m North East In Site & Adj North
Desk Study: Protected and Notable Species within 1km	
Protected Species <i>Anguis fragilis</i> <i>Eptesicus serotinus</i> <i>Muscardinus avellanarius</i> <i>Natrix natrix</i>	Slow worm Serotine bat Hazel dormouse Grass snake

<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>Triturus cristatus</i>	Great crested newt
Sussex BAP Species	
<i>Bufo bufo</i>	Common toad
<i>Coenonympha pamphilus</i>	Small Heath
<i>Salmo trutta</i>	Brown trout
Notable Bird Inventory	
<i>Hirundo rustica</i>	Swallow
<i>Tyto alba</i>	Barn owl
Invasive Alien Species Inventory	
<i>Crocsmia 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>Lamiastrum galeobdolon</i> subsp. <i>Argentatum</i>	Variiegated yellow archangel
<i>Mustela vison</i>	American mink
<i>Petasites fragrans</i>	Winter heliotrope
<i>Rhododendron ponticum</i>	Rhododendron
Field Survey: Habitat Description (See Figure 24/830)	
<p>Improved grassland – Most of the Site comprises very species poor improved grassland dominated by Yorkshire fog <i>Holcus lanatus</i>, common bent <i>Agrostis capillaris</i> and perennial rye-grass <i>Lolium perenne</i>. Forb content is very low, less than 10%, and of very common and widespread species, especially creeping buttercup <i>Ranunculus repens</i> and white clover <i>Trifolium repens</i>.</p> <p>Amenity grassland – species poor and of typical common and widespread species.</p> <p>Woodland – A very small area of a larger parcel of woodland falls within the Site to the north. The canopy is of oak, hornbeam and field maple and the shrub layer of hazel, hawthorn, blackthorn and willow. The field layer includes bramble, nettle, ivy and dogs mercury <i>Mercurialis perennis</i>.</p> <p>Hedges – there is a species rich hedge, which includes a mature oak, on the western boundary of the grassland fields. The garden contains several species poor hedges of non-native species.</p> <p>Buildings – house with pitched and tiled roof. Also shed and stable within the grassland field.</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	
No invasive non-native species recorded during the survey.	
Assessment of Potential for Protected and Notable Species	
<p>Great crested newts – There are no ponds within the Site. However, there is a pond within the woodland of which the Site includes a part and immediately adjacent to it. There is also a record of great crested newts from 2006 for this pond. OS maps also indicate the presence of a number of other ponds within 500m of the Site. However, suitable terrestrial habitat for great crested newts within the Site is very limited, including only the woodland within which the pond lies and adjoining hedge, and the probability of them occurring outside of these is considered to be very low.</p>	

Breeding birds – in woodland and hedges. The grassland fields are of sufficient size to make them potentially suitable for ground nesting species such as skylark, although they represent significantly less than ideal habitat.

Wintering birds – given the size of the fields there is a possibility they may be used by wintering birds such as lapwing, although it is considered the habitat is currently significantly less than ideal.

Bats – Trees and mature trees in particular, with features such as cracks and cavities, for example including many within the woodland and also within the hedges, have potential to be used as roosts. The house may also have potential for roosts. Activity, including foraging and commuting, is likely throughout but especially around woodland and hedges.

Dormice – Moderate potential in woodland and hedge due to connectivity with adjoining woodland and hedges.

Badgers – potential for setts within the woodland and hedge, but may also use the Site foraging, though neither noted.

Recommendations for Further Survey (and optimal survey timings)

Amphibian (including great crested newt) – (March – June) of ponds within 500m of the Site, targeting especially those with greater suitability for great crested newts and those closest to the Site.

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

Wintering birds – may be appropriate dependent on the condition of the habitat and management at the time.

Dormice – (April – November) in suitable habitat.

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

INDICATIVE ECOLOGICAL APPRAISAL

Low to Moderate value – largely very species poor grassland, house and garden. The small area of woodland and the species rich hedge are the features of greatest value. Habitats and features present 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 woodland and species rich hedge.
- 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.

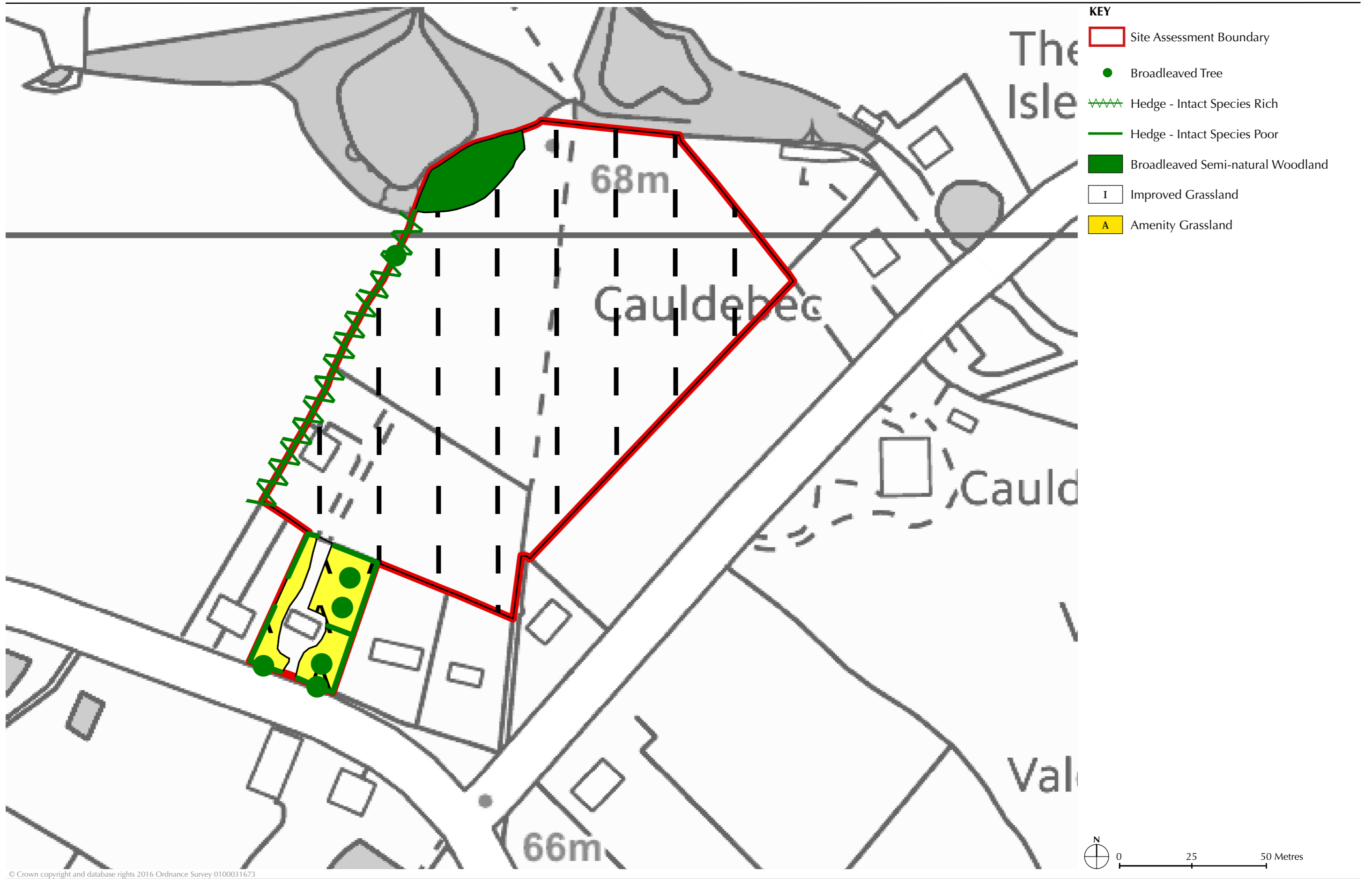
- Implementation of a Construction and Environmental Management Plan (CEMP) to manage site-specific issues relating to the potential impacts of construction on ecological features of interest.
- Offset buffers to protect retained habitats (minimum 10m).
- Use of protective fencing to define construction 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.
- Buffer the woodland and species rich hedge.
- If great crested newts are found in ponds within 500m 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).
- In light of the potential presence of breeding birds, if possible cutting back or removal of woody vegetation, including trees, shrubs/scrub and hedgerows, as well as disturbance of areas of grassland, 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.
- If dormice are found to be present the retention and appropriate buffering of woodland (as noted above).
- Development should seek to avoid any prime foraging grounds identified through the badger survey, avoid severance to commuting corridors within territories and avoid any construction works within at least 30m of the nearest badger setts.

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 species-rich hedge.
- Strengthen boundary vegetation, for example by gapping up the hedge on the southern boundary and planting new hedges on other boundaries with appropriate native species.
- Habitat creation, ideally located adjacent to retained or adjoining habitat, for example beside the woodland in the north 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 bird boxes suitable for a range of bird species on retained trees or incorporated into buildings.



ECOLOGICAL ASSESSMENT											
Settlement/Area:	Horam										
Site Address:	Land at Paines Farm, Vines Cross Road, Horam										
Site Reference Number:	832/3030										
Site Summary Description											
Several species poor grassland fields with associated hedges totalling 5.22ha. The Site also includes two houses and their associated garden, amenity grassland and access drive.											
ECOLOGICAL BASELINE											
Green Infrastructure Context (see Figure 24.1)											
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. There are also a relatively large number of ponds in the Horam area. The Site is located on the eastern fringes of Horam. The western boundary is formed by the well-treed disused railway line and residential properties to the north. The rest of the Site opens out onto a patchwork of hedge-lined agricultural fields and small woodlands.											
Desk Study : Designated Sites within 1km (See Figure 24.2)	Distance from Site										
<ul style="list-style-type: none"> • None 											
Desk Study: BAP Priority Habitats within 1km	Distance from Site										
<ul style="list-style-type: none"> • Ancient & semi-natural woodland – Long Shaw • Ancient & semi-natural woodland – Thunderly Wood • Ancient & semi-natural woodland – Bridge Farm Shaw • Ancient & semi-natural woodland – Sharp’s Corner Shaw • Ancient & semi-natural woodland – Coneyburrow Wood • Ancient & semi-natural woodland – Clearhedge Wood • Ancient & semi-natural woodland – Toll Wood • Ancient & semi-natural woodland – Coylet Farm Shaw • Ancient & semi-natural woodland – Coylet Farm Shaw 3 • Ancient & semi-natural woodland – Cogger’s Shaw • Ancient & semi-natural woodland – Marle Green Shaw 3 • Ancient & semi-natural woodland – Marle Green Shaw • Ancient & semi-natural woodland – Waldron Gill • Ancient & semi-natural woodland – Hook Farm Shaw 3 • Ancient & semi-natural woodland – Hook Farm Shaw 2 • Ancient & semi-natural woodland – Hook Farm Shaw • Ancient & semi-natural woodland – Bottle Shaw 	<ul style="list-style-type: none"> • 65m South • 445m North • 625m North West • 745m WNW • 570m West • 710m WSW • 250m South West • 300m South • 510m South • 890m South • 590m SSE • 775m South East • 520m East • 620m North East • 730m North East • 620m North East • 700m North East 										
Desk Study: Protected and Notable Species within 1km											
<table> <thead> <tr> <th colspan="2">Protected Species</th> </tr> </thead> <tbody> <tr> <td><i>Anguis fragilis</i></td> <td>Slow worm</td> </tr> <tr> <td><i>Eptesicus serotinus</i></td> <td>Serotine bat</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> </tbody> </table>		Protected Species		<i>Anguis fragilis</i>	Slow worm	<i>Eptesicus serotinus</i>	Serotine bat	<i>Muscardinus avellanarius</i>	Hazel dormouse	<i>Myotis nattereri</i>	Natterer’s bat
Protected Species											
<i>Anguis fragilis</i>	Slow worm										
<i>Eptesicus serotinus</i>	Serotine bat										
<i>Muscardinus avellanarius</i>	Hazel dormouse										
<i>Myotis nattereri</i>	Natterer’s bat										

<i>Natrix natrix</i>	Grass snake
<i>Phyteuma spicatum</i>	Spiked Rampion
<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>Plecotus</i> sp.	Long-eared bat sp.
<i>Triturus cristatus</i>	Great crested newt
Sussex BAP Species	
<i>Bufo bufo</i>	Common toad
<i>Coenonympha pamphilus</i>	Small Heath
<i>Salmo trutta</i>	Brown trout
Notable Bird Inventory	
<i>Hirundo rustica</i>	Swallow
<i>Pandion haliaetus</i>	Osprey
<i>Tyto alba</i>	Barn owl
Invasive Alien Species Inventory	
<i>Centranthus ruber</i>	Red valerian
<i>Cotoneaster simonsii</i>	Himalayan cotoneaster
<i>Crocodymia 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>Impatiens glandulifera</i>	Indian balsam
<i>Lamiastrum galeobdolon</i> subsp. <i>Argentatum</i>	Variiegated yellow archangel
<i>Mustela vison</i>	American mink
<i>Petasites fragrans</i>	Winter heliotrope
<i>Rhododendron ponticum</i>	Rhododendron
Field Survey: Habitat Description (See Figure 24/832)	
<p>Improved grassland – The two most easterly fields are very species poor and dominated by Yorkshire fog <i>Holcus lanatus</i> and common bent <i>Agrostis capillaris</i>. Forb content is very low and of few species, mainly common sorrel <i>Rumex acetosa</i> and common bird's foot trefoils <i>Lotus corniculatus</i>. They have a relatively short and homogenous sward.</p> <p>Poor semi-improved grassland – The western field has been recently cut and this made assessment more difficult. However it appears similar to the grassland to the east of the Site.</p> <p>Tall ruderal – There is a strip of unmanaged grassland and tall ruderal on the eastern edge of the western field.</p> <p>Trees and scrub – There are several trees around the buildings in the north of the Site. There are also mature ash trees on the northern boundary and within a hedge between fields.</p> <p>Hedges – The hedges between the grassland fields are species poor, comprising largely of hawthorn. They are unmanaged and gappy, and hollow at the base. However, there is a section of species rich hedge along part of the northern boundary. The access drive is bordered by both species poor and species rich sections of hedge.</p> <p>Stream – The access road crosses a small stream (a tributary of the Cuckmere) which flows from west to east. This appears to have a relatively natural channel with a gravel and silt bed and riffle and pool structure, set within steep wooded banks.</p> <p>Buildings – Two modern houses with pitched and tiled roofs and an open barn.</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

No invasive non-native species recorded during the survey.

Assessment of Potential for Notable and Protected Species

Great crested newts – There are no ponds within the Site. However, there are ponds within woodland approximately 80-180m to the south and OS maps also indicate the presence of a number of other ponds within 500m of the Site. There are also records of great crested newts within 1 km of the Site. However, suitable terrestrial habitat for great crested newts within the Site is very limited, comprising of some of the hedges and other boundary vegetation, and the probability of them occurring within the Site is therefore considered to be very low.

Reptiles – Very limited potential along some boundaries, such as the northern one.

Breeding birds – In hedges and trees. The grassland fields are of sufficient size to make them potentially suitable for ground nesting species such as skylark, although they represent significantly less than ideal habitat.

Wintering birds – Given the size of the fields there is a possibility they may be used by wintering birds such as lapwing, although it is considered the habitat is currently significantly less than ideal.

Bats – Trees and mature trees in particular, with features such as cracks and cavities, for example including many within the boundary vegetation and hedgerows have potential to be used as roosts. The buildings appear to have low potential for bats. Activity, including foraging and commuting, is likely throughout but especially along hedges and woodland edge.

Dormice – Low to moderate potential in the denser hedges due to limited habitat connectivity.

Badgers – Potential for setts within the hedges, but with or without setts badgers may also use almost any part of the 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) based on the current condition and habitats of the Site it is felt that amphibian surveys would not be appropriate. However, surveys may be appropriate if there is a change in the management of all or part of the Site which would lead to an increase in the area of suitable terrestrial habitat for great crested newts.

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

Wintering birds – may be appropriate dependent on the condition of the habitat and management at the time.

Bats – (inspections: year round; activity surveys April – October) in the first instance inspection of trees and houses 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 – although quite a large Site it comprises largely of very species poor grassland and species poor hedges. Habitats and features present 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.
- 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

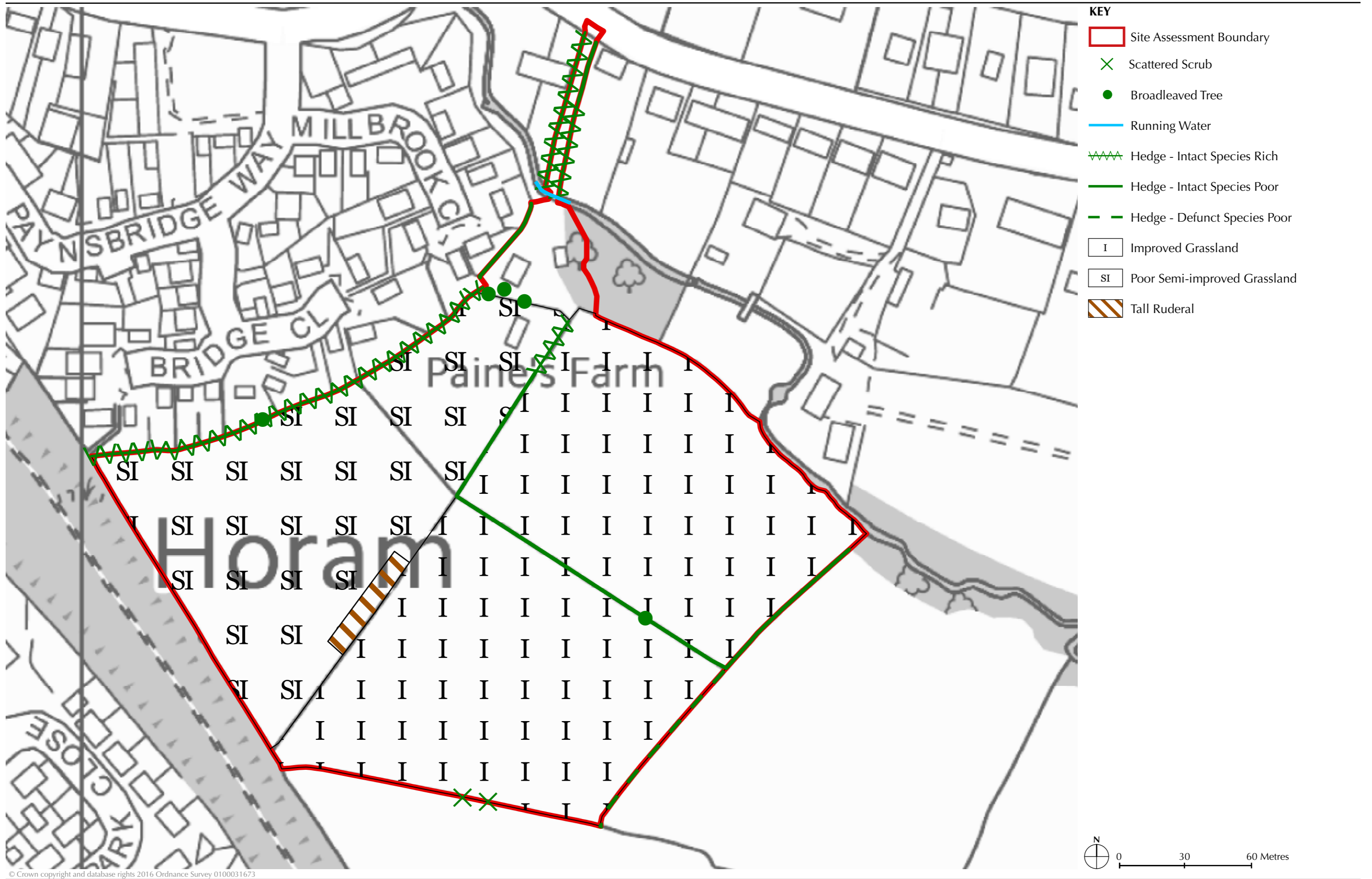
Should development at this Site proceed, generic (standard) mitigation for impacts upon habitats and species is set out below. Further detailed or species-specific mitigation may be required dependent upon the outcome of the recommended protected habitat or species surveys.

- 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.
- 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.
- Buffer the hedges and mature trees and their features.
- If great crested newts are found in ponds within 500m 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).
- In light of the potential presence of breeding birds, if possible cutting back or removal of woody vegetation, including trees, shrubs/scrub and hedgerows, as well as disturbance of areas of arable, grassland or ruderal, 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.
- If dormice are found to be present the retention and appropriate buffering of woodland (as noted above).
- Development should seek to avoid any prime foraging grounds identified through the badger survey, avoid severance to commuting corridors within territories and avoid any construction works within at least 30m of the nearest badger setts.

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 hedges and mature trees.
- Plant appropriate native species to strengthen existing hedges, as well as creating new ones, for example on the southern boundary.
- Habitat creation, ideally located adjacent to retained or adjoining habitat 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 bird boxes suitable for a range of bird species on retained trees or incorporated into buildings.



ECOLOGICAL ASSESSMENT																	
Settlement/Area:	Horam																
Site Address:	Glen Rosa, Vines Cross Road, Horam																
Site Reference Number:	838/3030																
Site Summary Description																	
A small 0.11ha Site forming part of a garden with amenity grassland, a damp depression and trees, including mature ash and alder.																	
ECOLOGICAL BASELINE																	
Green Infrastructure Context (see Figure 24.1)																	
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. There are also a relatively large number of ponds in the Horam area. The Site lies within an area of residential properties north of Vines Cross Road and is more or less enclosed within gardens. Beyond this to the south and west is Horam, and to the north east is open countryside comprising of fields with hedges and woodland.																	
Desk Study : Designated Sites within 1km (See Figure 24.2)	Distance from Site																
<ul style="list-style-type: none"> None 																	
Desk Study: BAP Priority Habitats within 1km	Distance from Site																
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Desk Study: Protected and Notable Species within 1km																	
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<i>Anguis fragilis</i>	Slow worm																
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<i>Muscardinus avellanarius</i>	Hazel dormouse																
<i>Myotis nattereri</i>	Natterer's bat																
<i>Natrix natrix</i>	Grass snake																
<i>Phyteuma spicatum</i>	Spiked Rampion																
<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>Triturus cristatus</i>	Great crested newt
Sussex BAP Species	
<i>Bufo bufo</i>	Common toad
Notable Bird Inventory	
<i>Delichon urbicum</i>	House martin
<i>Hirundo rustica</i>	Swallow
<i>Pandion haliaetus</i>	Osprey
Invasive Alien Species Inventory	
<i>Cotoneaster simonsii</i>	Himalayan cotoneaster
<i>Harmonia axyridis</i>	Harlequin Ladybird
<i>Impatiens glandulifera</i>	Indian balsam
<i>Rhododendron ponticum</i>	Rhododendron
Field Survey: Habitat Descriptions (See Figure 24/838)	
<p>Amenity grassland – Species poor and comprising typical common and widespread species such as creeping buttercup <i>Ranunculus repens</i>, white clover <i>Trifolium repens</i>, self-heal <i>Prunella vulgaris</i>, daisy <i>Bellis perennis</i> and dandelion <i>Taraxacum officinale</i> agg.</p> <p>Tall ruderal – Small area in the north west corner.</p> <p>Damp depression – On the eastern edge. Previously formed a shallow pond but at the time of the survey there is no water. The bottom is bare, with much leaf and woody debris. The banks support pendulous sedge <i>Carex pendula</i>, tufted hair grass <i>Deschamsia cespitosa</i>, nettle and bramble.</p> <p>Trees – Trees are present around the edges. Most of these are planted non-natives but there is a mature ash at TN1 and alder at TN2.</p> <p>Hedges – Species poor and of non-native species.</p>	
Field Survey: Protected and Notable Species	
Badger foraging signs (snuffle holes) in lawn	
Field Survey: Invasive Non-native Species	
No invasive non-native species recorded within the Site.	
Assessment of Potential for Protected and Notable Species	
<p>Great crested newts – There is now no pond within the Site. However, OS maps indicate there are ponds to the north and north east of the Site, from about 300-400m distant. It is possible there may also be ponds within nearby gardens. Given the distance to known ponds and the limited suitable terrestrial habitat for great crested newts within the Site the probability of them being present is considered low.</p> <p>Breeding birds –In hedges and trees.</p> <p>Bats – Trees and mature trees in particular, with features such as cracks and cavities, such as the ash and alders, have some potential to be used as roosts. Activity, including foraging and commuting, is possible throughout.</p> <p>Badgers – The garden appears to be used for foraging and there is some potential for setts within the boundary vegetation, although these are inspected during the survey and are not observed. Given the small size of the Site the probability of them being present is therefore considered very low.</p>	

Recommendations for Further Survey (and optimal survey timings)

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

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

Breeding birds – (April – June) – whole site.

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

INDICATIVE ECOLOGICAL APPRAISAL

Low value – mainly species poor grassland and non-native trees, but the mature ash and alder have value.

The Site has 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 ash and alder 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

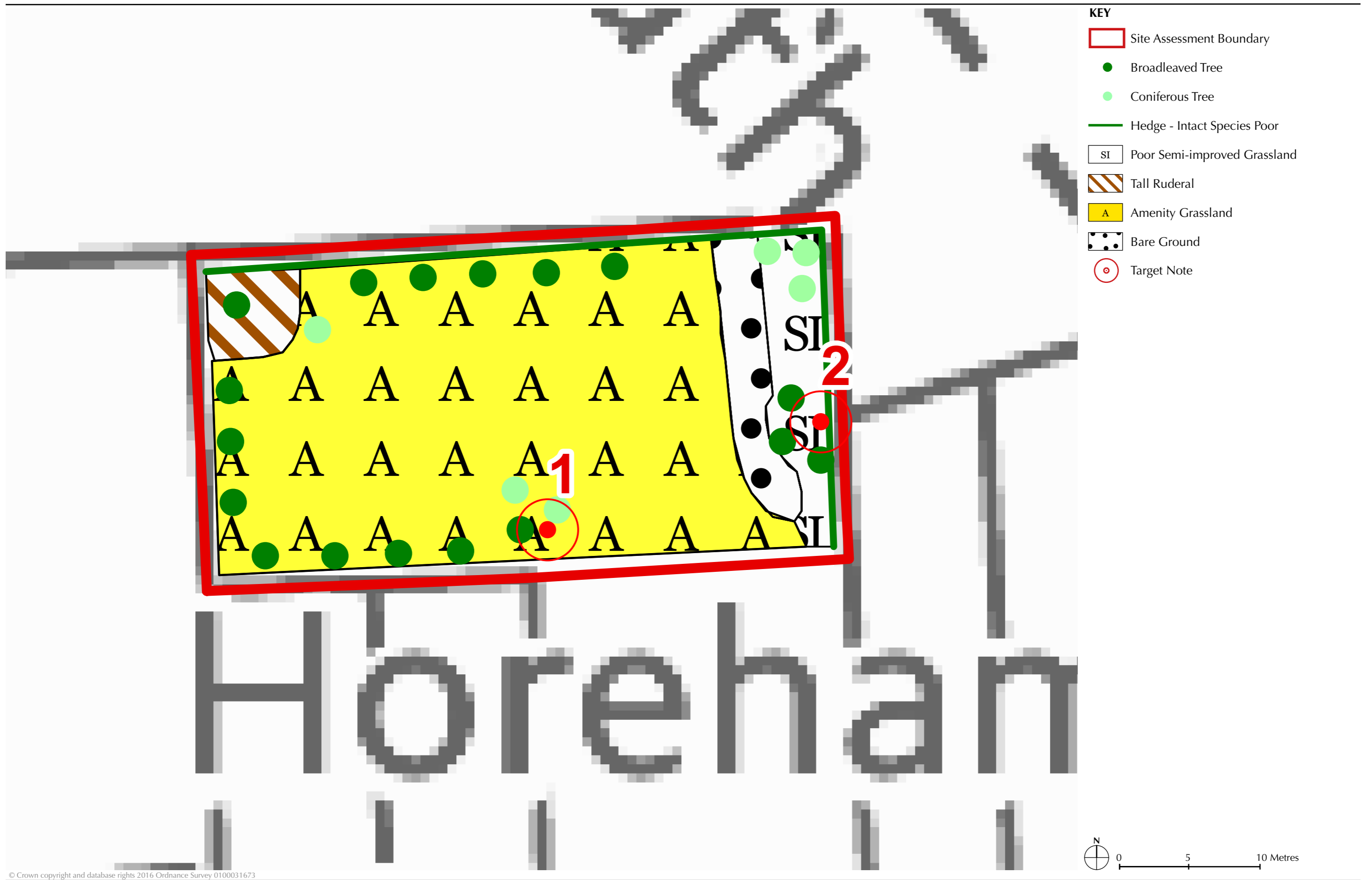
Should development at this site proceed, generic (standard) mitigation for impacts upon habitats and species is set out below. Further detailed or species-specific mitigation may be required dependent upon the outcome of the recommended protected habitat or species surveys.

- 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).
- 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.
- Strengthen boundary vegetation by removing non-native species planting 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.
- 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:	Horam														
Site Address:	Land at Hedgerows, Eastbourne Road, Horam														
Site Reference Number:	841/3030														
Site Summary Description															
A 2.69ha site comprising a house and large garden, including mature trees and a pond, two species poor grassland fields, a small area of species poor woodland of very recent development and species rich hedges.															
ECOLOGICAL BASELINE															
Green Infrastructure Context (see Figure 24.1)															
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. There are also a relatively large number of ponds in the Horam area. The Site lies on the southern edge of Horam. To the north and north west are residential areas. To the south and east is open country of mostly grassland fields with hedges and woodland. The Site adjoins Horeham Flat Farm Shaw Ancient Woodland on its southern boundary.															
Desk Study : Designated Sites within 1km See Figure 24.2)	Distance from Site														
<ul style="list-style-type: none"> None 															
Desk Study: BAP Priority Habitats within 1km	Distance from Site														
<ul style="list-style-type: none"> Ancient & semi-natural woodland – Horeham Flat Farm Shaw Ancient & semi-natural woodland – Coneyburrow Wood Ancient & semi-natural woodland – Clearhedge Wood Ancient & semi-natural woodland – East Knowle Wood Ancient & semi-natural woodland – East Knowle Shaw Ancient & semi-natural woodland – Cocker’s Pit Ancient & semi-natural woodland – Rose Bank Farm Shaw Ancient & semi-natural woodland – Swansbrook Wood Ancient & semi-natural woodland – Cogger’s Shaw Ancient & semi-natural woodland – Coylet Farm Shaw 3 Ancient & semi-natural woodland – Coylet Farm Shaw Ancient & semi-natural woodland – Toll Wood Ancient & semi-natural woodland – Long Shaw 	<ul style="list-style-type: none"> Adjacent South 710m North 185m North West 480m West 735m South West 695m South West 465m South West 760m South 385m East 670m East 570m East 690m North East 980 m North East 														
Desk Study: Protected and Notable Species															
<p>Protected Species</p> <table> <tbody> <tr> <td><i>Anguis fragilis</i></td> <td>Slow worm</td> </tr> <tr> <td><i>Eptesicus serotinus</i></td> <td>Serotine bat</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>Pipistrellus pygmaeus</i></td> <td>Soprano pipistrelle (55kHz) 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> </tbody> </table>		<i>Anguis fragilis</i>	Slow worm	<i>Eptesicus serotinus</i>	Serotine bat	<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>Pipistrellus sp.</i>	Pipistrelle sp. bat	<i>Plecotus auritus</i>	Brown Long-eared bat
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<i>Plecotus</i> sp.	Long-eared bat sp.
Sussex BAP Species	
<i>Bufo bufo</i>	Common toad
<i>Limenitis camilla</i>	White admiral
Notable Bird Inventory	
<i>Delichon urbicum</i>	House martin
<i>Hirundo rustica</i>	Swallow
<i>Pandion haliaetus</i>	Osprey
Invasive Alien Species Inventory	
<i>Centranthus ruber</i>	Red valerian
<i>Eriocheir sinensis</i>	Chinese mitten crab
<i>Fallopia japonica</i>	Japanese Knotweed
<i>Harmonia axyridis</i>	Harlequin Ladybird
<i>Hyacinthoides non-scripta x 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
Field Survey: Habitat Descriptions (See Figure 24/841)	
<p>Amenity grassland – Species poor and comprises typical common and widespread species such as creeping buttercup <i>Ranunculus repens</i>, white clover <i>Trifolium repens</i>, self-heal <i>Prunella vulgaris</i>, daisy <i>Bellis perennis</i> and dandelion <i>Taraxacum officinale</i> agg..</p> <p>Poor semi-improved grassland – In the two fields in the west of the Site. It is species poor and dominated by Yorkshire fog <i>Holcus lanatus</i>, common bent <i>Agrostis capillaris</i> and perennial rye-grass <i>Lolium perenne</i>. Forb cover is low and of common and widespread species such as creeping and meadow buttercup <i>Ranunculus repens</i> and <i>acris</i>, white clover <i>Trifolium repens</i>, self-heal <i>Prunella vulgaris</i>, common mouse-ear <i>Cerastium fontanum</i>, dandelion and cats ear <i>Hypochaeris radicata</i>. Most of the northern field has been cut and forms a short and homogenous sward. The southern part of this field and the southern field though are uncut and form a taller sward. Also includes an unmanaged tennis court.</p> <p>Tall ruderal – Small patchy areas on boundaries and in corners.</p> <p>Woodland – A small scrubby area in the south west of the Site is dominated by an even-aged stand of grey willow, with young ash, field maple, hornbeam and hazel developing beneath. The field layer is mostly bramble but also includes pendulous sedge <i>Carex pendula</i>, rush <i>Juncus</i> sp. and grasses.</p> <p>Trees – Includes both native, such as oak and birch, some of which are mature (e.g. beside the pond) and non-native trees.</p> <p>Hedges – Includes several species rich, with hawthorn blackthorn, hazel, holly, willow, field maple and ash. Several sections include mature trees, mostly oak and hornbeam but also field maple and ash. The hedge on the eastern boundary is less rich, with much, probably planted, beech. There are some species poor non-native hedges near the entrance to the property from Eastbourne Road as well as box hedges round planted beds.</p> <p>Introduced shrub – Scattered throughout the garden in beds and borders as well as specimens.</p> <p>Pond – Set within the garden in the south east of the Site (TN2). Partly shaded by trees and scrub on the banks though mostly open. There is a high cover of duckweed <i>Lemna</i> sp. and stands of emergent and marginal vegetation, including greater reedmace <i>Typha latifolia</i>, yellow iris <i>Iris pseudoacorus</i>, purple loosestrife <i>Lythrum salicaria</i>, great willowherb <i>Epilobium hirsutum</i> and pendulous sedge but also non-native Gunnera. There is also a very small pond close to the house (TN1). This is set within amenity grassland, has a paved edging, is stocked with fish and has little or no in-pond vegetation.</p> <p>Buildings – The house has a pitched and tiled roof. There is also a brick shed in the west of the Site, also with pitched and tiled roof.</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 was present in the garden

Assessment of Potential for Protected and Notable Species

Great crested newts – In addition to the pond within the Site OS maps indicate there are ponds immediately to the west of the Site, approximately 80m and 170m to the south, in Horeham Flat Farm Shaw Ancient Woodland, near Horeham Flat Farm, approximately 270m to the south west and among houses approximately 210m to the north. There are also ponds to the east of Oakhurst Farm, but these are on the other side of the A267 Eastbourne Road, which would be a significant barrier to dispersal for great crested newts. Suitable terrestrial habitat for great crested newts within the Site includes hedges, tall ruderal and unmanaged grassland.

Reptiles – Some potential among taller grassland in the west of the Site, especially near boundaries and around building, and elsewhere in patchy tall ruderal and similar.

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

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

Dormice – Moderate potential in woodland and hedges due to some connectivity with adjoining woodland and hedgerows, although the Site is located on the northern edge of such a network.

Badgers – Some potential for setts within the woodland and hedges, but with or without setts badgers may also use any or part of the 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 ponds within and close the Site

Reptiles – (May – June, September – October) in suitable habitat if present

Bats – (inspections: year round; activity surveys April – October) in the first instance inspection of trees and buildings 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 species poor and including large component of non-native species but the hedges, mature trees and pond are of moderate value.

The Sites location, adjacent to Horeham Flat Farm Shaw Ancient Woodland increases its value and sensitivity.

The Site has 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, mature trees and their features and the pond.
- 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

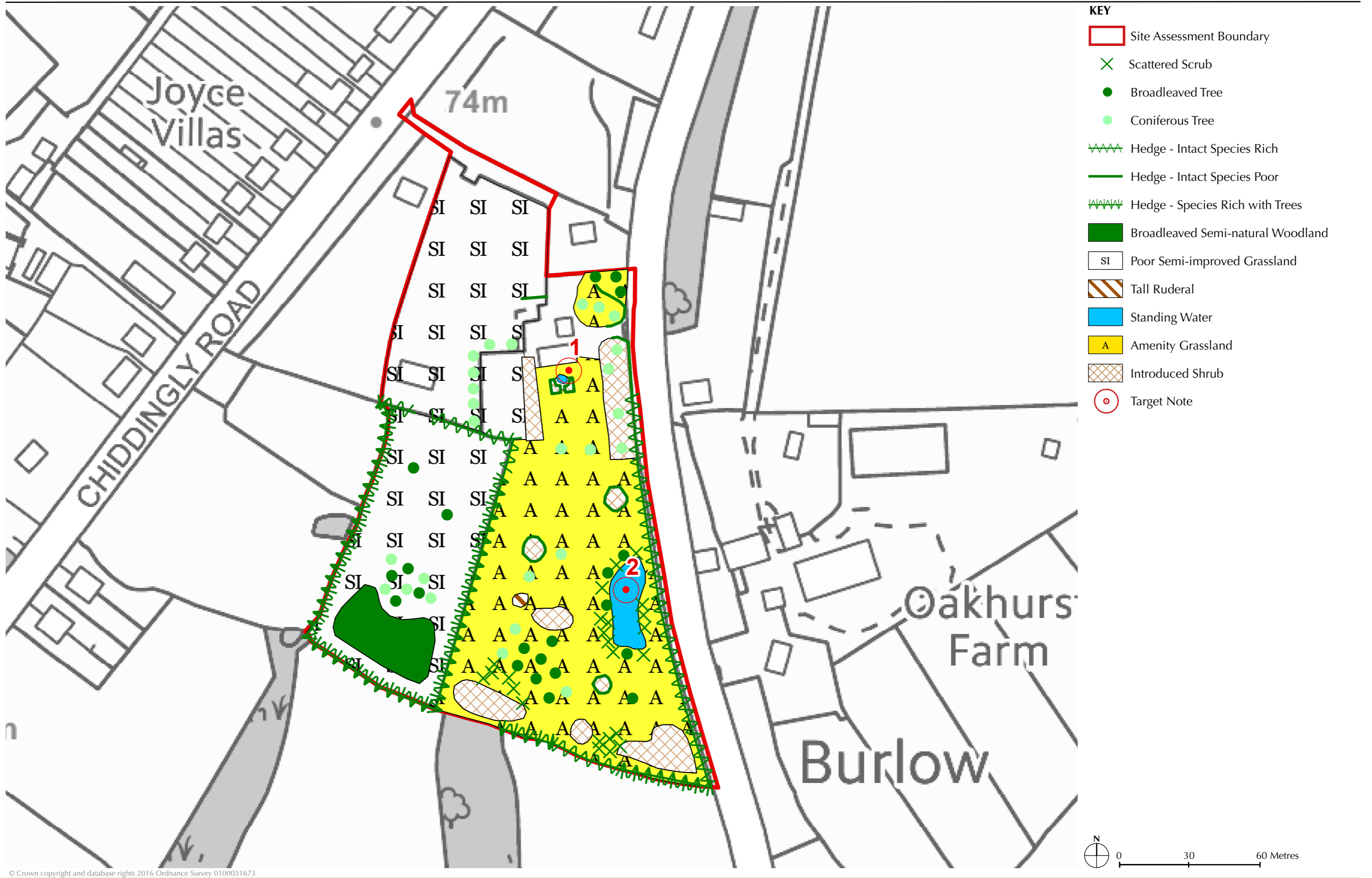
Should development at this site proceed, generic (standard) mitigation for impacts upon habitats and species is set out below. Further detailed or species-specific mitigation may be required dependent upon the outcome of the recommended protected habitat or species surveys.

- 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).
- 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 appropriate.
- 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 pond.
- Strengthen boundary vegetation by removing non-native species and planting 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.
- 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:	Horam
Site Address:	Coxlow Farm, Horam
Site Reference Number:	875/3030
Site Summary Description	
A large 26.17ha site comprising a number of species poor grassland fields with species rich hedges, including some with mature trees. Also includes small areas of Coggers Shaw Ancient Woodland, ponds and a house and farm buildings.	
ECOLOGICAL BASELINE	
Green Infrastructure Context (see Figure 24.1)	
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. There are also a relatively large number of ponds in the Horam area. The Site lies to the south of the main part of Horam. It is set within open country of mostly grassland fields with hedges and woodland but adjoins the developed area of Horam at its northern end. The Site includes parts of and adjoins Coggers Shaw Ancient Woodland on its southern boundary. It also adjoins Coylet Farm Shaw and Coxlow Farm Shaw, which are both Ancient Woodlands, on its northern and southern boundaries respectively.	
Desk Study : Designated Sites within 1km (See Figure 24.2)	Distance from Site
<ul style="list-style-type: none"> None 	
Desk Study: BAP Priority Habitats within 1km	Distance from Site
<ul style="list-style-type: none"> Ancient & semi-natural woodland – Coylet Farm Shaw 3 Ancient & semi-natural woodland – Coylet Farm Shaw Ancient & semi-natural woodland –Cogger’s Shaw Ancient & semi-natural woodland – Ten Acre Wood Ancient & semi-natural woodland – Marle Green Shaw 2 Ancient & semi-natural woodland – Coylet Farm Shaw 2 Ancient & semi-natural woodland – Toll Wood Ancient & semi-natural woodland – Long Shaw Ancient & semi-natural woodland – Coneyburrow Wood Ancient & semi-natural woodland – Clearhedge Wood Ancient & semi-natural woodland – Clearhedge Farm Shaw 2 Ancient & semi-natural woodland – East Knowle Wood Ancient & semi-natural woodland – Horeham Flat Farm Shaw Ancient & semi-natural woodland – Bent Wood Ancient & semi-natural woodland – Cowden Wood Ancient & semi-natural woodland – Raven Shaw Ancient & semi-natural woodland – Marle Green Shaw 	<ul style="list-style-type: none"> Adjacent North Adjacent North In Site / Adj South Adjacent South Adjacent East 330m North 180m North 435m North 475m North West 350m North West 400m West 920m South West 490m South West 470m South 900m South East 250m East 290m North East

Desk Study: Protected and Notable Species within 1km

Protected Species

<i>Anguis fragilis</i>	Slow worm
<i>Eptesicus serotinus</i>	Serotine bat
<i>Muscardinus avellanarius</i>	Hazel dormouse
<i>Myotis nattereri</i>	Natterer's bat
<i>Natrix natrix</i>	Grass snake
<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>Plecotus</i> sp.	Long-eared bat sp.
<i>Triturus cristatus</i>	Great crested newt

Sussex BAP Species

<i>Bufo bufo</i>	Common toad
<i>Coenonympha pamphilus</i>	Small Heath
<i>Limenitis camilla</i>	White admiral

Notable Bird Inventory

<i>Delichon urbicum</i>	House martin
<i>Hirundo rustica</i>	Swallow
<i>Pandion haliaetus</i>	Osprey
<i>Tyto alba</i>	Barn owl

Invasive Alien Species Inventory

<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>Eriocheir sinensis</i>	Chinese mitten crab
<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>Impatiens glandulifera</i>	Indian balsam
<i>Mustela vison</i>	American mink
<i>Prunus laurocerasus</i>	Cherry laurel
<i>Rhododendron ponticum</i>	Rhododendron

Field Survey: Habitat Descriptions (See Figure 24/875)

Improved grassland – Comprises the majority of the grassland. It is a homogenous, relatively short (5-10cm) sward. Parts are sheep-grazed. It is very species poor with abundant Yorkshire fog *Holcus lanatus*, common bent *Agrostis capillaris* and perennial rye-grass *Lolium perenne*. Forb cover is low, around 10-20%, and consists of very common and widespread species, especially creeping buttercup *Ranunculus repens*, red and white clover *Trifolium pratense* and *repens* and common sorrel *Rumex acetosa*. Tall ruderals, especially creeping thistle *Cirsium arvense* are occasional but locally frequent.

Poor semi-improved grassland – There is a small slightly richer area of grassland in the south of the Site. This is on a slope down towards the adjoining woodland and has a somewhat taller and more varied sward. In addition to the species mentioned above it includes tufted hair grass *Deschampsia cespitosa*, crested dogs tail *Cynosorus cristatus*, sweet vernal grass *Anthoosanthum odoratum*, meadow barley *Hordeum secalinum*, cocksfoot *Dactylis glomerata*, bird's foot trefoil *Lotus corniculatus*, self-heal *Prunella vulgaris*, cinquefoil *Potentilla reptans* and common agrimony *Agrimonia eupatoria*. Forb content is

approximately 30%.

There is also a small area of taller species poor grassland beside the pond at **TN1**.

Ruderal – Small areas in and around fields but especially among farm buildings in the north of the Site.

Woodland – Two or three small areas forming parts of the larger Coggers Shaw Ancient Woodland. The most easterly part occupies sloping areas either side of a seasonal or ephemeral stream. It consists mostly of outgrown hornbeam coppice but also includes some mature oaks as well as some ash. There is some hazel but overall the shrub layer is sparse. The ground is largely bare at the time of the survey. However a small area by the stream at the southern end, where it is crossed by a bridge carrying a PRoW, supports a number of Ancient Woodland Indicator Species (AWIS) including wood sedge *Carex sylvatica*, primrose *Primula vulgaris* and wood speedwell *Veronica montana*, as well as pendulous sedge *Carex pendula*, tufted hair grass, false brome *Brachypodium sylvaticum*, violet *Viola* sp., wood avens *Geum urbanum* and male fern *Dryopteris felix-mas*. An area to the west is of mature trees on a grassy or scrubby bank and the most westerly part of this area is scrubby in character beneath electricity power lines.

Like the first area the middle area lies along a seasonal or ephemeral stream. Ash is abundant with occasional oak and goat and crack willow. The shrub layer includes hazel, hawthorn, hornbeam and rose. The field layer does not appear rich, with much bare ground and some grass and ground ivy *Glechoma hederacea*, although pendulous sedge and the AWIS wood speedwell and remote sedge *Carex remota* are recorded.

The most northerly section is very narrow but includes mature trees, including oak, hornbeam and ash and shrubs, especially hawthorn.

Trees and scrub – Outside the woodland and hedges there are a number of mature trees, mostly oaks, as well as some patchy scrub, for example along boundaries and beside ponds.

Hedges – Are mostly species rich, with hawthorn, blackthorn, hazel, holly, rose, spindle, hornbeam, field maple and oak. Some sections include mature trees, especially oak, but also hornbeam, field maple and ash. Some sections are quite gappy and derelict in nature but others are in relatively good condition. Some sections with many trees are rather gappy at the base, due to the shade from trees.

Ponds – There are three ponds within the Site. The pond at **TN1** is small and positioned within or adjoining a hedge. It is heavily shaded by willows but has a complete cover of duckweed *Lemna* sp.. There is some floating sweet-grass *Glyceria fluitans*, branched bur reed *Sparganium erectum* and soft rush *Juncus effusus* on the southern edge, outside the scrub. Adjoining it, in a more open area is a stand of greater reedmace *Typha latifolia* with soft rush.

The pond at **TN2** is approximately 350m², located in a depression and enclosed on all sides by a hedge with trees and trees and scrub. It is heavily shaded and contains very little shallow water but much woody and leaf debris. There is not in-pond vegetation.

The pond at **TN3** is approximately 600m² and is located in an open location with scattered trees and scrub on the banks. It is filled with emergent and marginal vegetation, including greater reedmace, branched bur reed and reed sweet grass *Glyceria maxima* as well as greater willowherb *Epilobium hirsutum* and gypsywort *Lycopus europaeus*.

Buildings – A house and range of agricultural buildings, including open barns but also brick buildings with pitched and tiled roofs.

Field Survey: Protected and Notable Species

Badger – possible disused sett at **TN4**. 4-5 holes of appropriate size and shape but no signs of recent activity.

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 ponds within the Site there are numerous ponds adjacent or near to the Site, for example at Coxlow House, within and adjacent to Coylet Farm Shaw immediately north of the Site, in woodland to the east of Oakhurst Farm and in and beside Coggers Shaw Ancient Woodland to the south and south east of the Site. Woodland, hedges, scrub, tall ruderal and unmanaged

grassland are suitable habitats for great crested newts within the Site.

Reptiles – Very limited potential among ruderal in and around the farm and in taller or more structurally diverse areas of grassland, such as near **TN1**.

Breeding birds –In woodland, hedges, trees and scrub. The fields may be large enough to be used by ground nesting species such as skylark, although the habitat is considered significantly less than ideal at present. There may also be potential for breeding birds within some of the farm buildings.

Wintering birds – some potential for wintering lapwing but the probability is considered low due to rather small field size and most lapwing winter on the coast or on floodplains.

Bats – Trees and mature trees in particular, with features such as cracks and cavities, have potential to be used as roosts. Buildings at the farm may also have potential for roosts. Activity, including foraging and commuting, is likely throughout but especially in and around woodland and along hedgerows.

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

Badgers – Possible disused sett identified but no other signs recorded. However, potential for setts within the woodland, hedges and scrub, but with or without setts badgers may also use any or part of the Site for foraging.

Recommendations for Further Survey (and optimal survey timings)

Amphibian (including great crested newt) – (March – June) of the ponds within the Site and within 500m of it, targeting especially those nearest to the Site and/or with the greatest suitability for great crested newts.

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

Breeding birds – (April – June) – whole site.

Bats – (inspections: year round; activity surveys April – October) in the first instance inspection of trees and buildings 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 – although the grassland is species poor, the Site is large and includes areas of Ancient Woodland, species rich hedges, mature trees and ponds, which are of moderate to high value. The Sites location, including parts of and adjacent to Coggers Shaw Ancient Woodland, as well as adjoining Coylet Farm Shaw and Coxlow Farm Shaw Ancient Woodlands, increases its value and sensitivity.

The Site has 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, including Ancient woodland, hedges, mature trees and their features and ponds.
- 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).

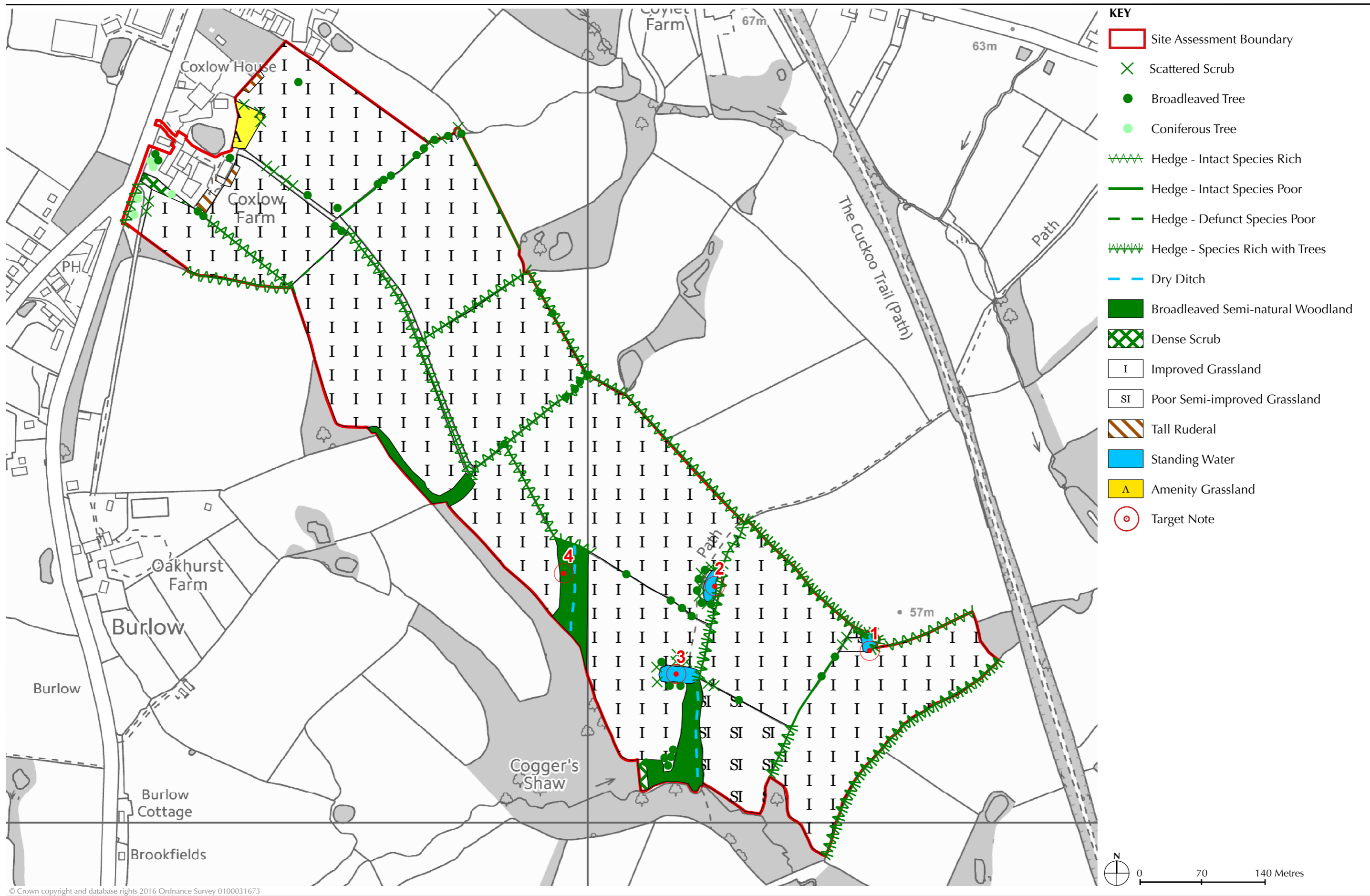
- Offset buffers to protect retained habitats (minimum 10m).
- Use of protective fencing to define construction areas and protect retained habitats.
- Avoidance of night-time working wherever possible. When not possible, use directional lighting to prevent lightshed into surrounding habitats.
- Inclusion 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).
- 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.
- 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 ponds.

- Strengthen boundary vegetation by planting appropriate native species to gap up existing hedges and for new hedges on boundaries currently lacking them.
- Habitat creation, ideally located adjacent to retained or adjoining habitat, such as beside Coggers Shaw 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.



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ECOLOGICAL ASSESSMENT	
Settlement Area:	Horam
Site Address:	Land Adjacent to Laundry Lane and Cauldavon, Horam
Site Reference Number:	889/3030
Site Summary Description	
0.46ha of species poor grassland with a species rich hedge on one boundary.	
ECOLOGICAL BASELINE	
Green Infrastructure Context (see Figure 24.1)	
<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. There are also a relatively large number of ponds in the Horam area. The Site lies about 1km to the east of the centre of Horam, on Horebeech Lane. Immediately to the south west, south east and north east are residential properties and associated grounds and Laundry Lane. To the north west are hedge-lined fields and small woodlands towards Horam.</p>	
Desk Study : Designated Sites within 1km (See Figure 24.2)	Distance from Site
<ul style="list-style-type: none"> None 	
Desk Study: BAP Priority Habitats within 1km	Distance from Site
<ul style="list-style-type: none"> Ancient & semi-natural woodland – Wadron Ghyll Ancient & semi-natural woodland – Hook Farm Shaw 3 Ancient & semi-natural woodland – Hook Wood Ancient & semi-natural woodland – Hook Farm Shaw 2 Ancient & semi-natural woodland – Hook Farm Shaw Ancient & semi-natural woodland – Thunderly Wood Ancient & semi-natural woodland – Long Shaw Ancient & semi-natural woodland – Toll Wood Ancient & semi-natural woodland – Coylet Farm Shaw Ancient & semi-natural woodland – Coylet Farm Shaw 2 Ancient & semi-natural woodland – Marle Green Shaw 3 Ancient & semi-natural woodland – Marle Green Shaw Ancient & semi-natural woodland – Raven Shaw Ancient & semi-natural woodland – Clappers Wood Ancient & semi-natural woodland – Ballsocks Shaw 	<ul style="list-style-type: none"> 170m North 610m North 730m North 760m North 770m North 870m North 210m West 480m West 370m WSW 480m South West 200m South 390m South 630m South 690m East 960m North East

Desk Study: Protected and Notable Species within 1km

Protected Species

<i>Anguis fragilis</i>	Slow worm
<i>Eptesicus serotinus</i>	Serotine bat
<i>Muscardinus avellanarius</i>	Hazel dormouse
<i>Natrix natrix</i>	Grass snake
<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>Triturus cristatus</i>	Great crested newt

Sussex BAP Species

<i>Bufo bufo</i>	Common toad
<i>Coenonympha pamphilus</i>	Small Heath
<i>Salmo trutta</i>	Brown trout

Notable Bird Inventory

<i>Hirundo rustica</i>	Swallow
<i>Tyto alba</i>	Barn owl

Invasive Alien Species Inventory

<i>Crocsmia 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>Lamium galeobdolon</i> subsp. <i>Argentatum</i>	Variiegated yellow archangel
<i>Mustela vison</i>	American mink
<i>Petasites fragrans</i>	Winter heliotrope
<i>Rhododendron ponticum</i>	Rhododendron

Field Survey: Habitat Descriptions (See Figure 24/889)

Poor semi-improved grassland – Homogenous short to moderately tall species poor sheep-grazed sward. Yorkshire fog *Holcus lanatus* and common bent *Agrostis capillaris* are abundant but perennial rye-grass *Lolium perenne* is frequent and meadow barley *Hordeum secalinum* and cat's tail *Phleum* sp. are also present. Forb content is low, approximately 10% and comprised common and widespread species, especially creeping and meadow buttercup *Ranunculus repens* and *acris*, red and white clover *Trifolium pratense* and *repens* and common sorrel *Rumex acetosa*, but meadow vetchling *Lathyrus pratensis* and birds foot trefoil *Lotus corniculatus* are also present. Tall ruderal species, such as broadleaved dock *Rumex obtusifolius* and creeping thistle *Cirsium arvense* are occasional.

Hedges – species rich on the eastern boundary with Laundry Lane, with hawthorn, blackthorn, hazel, hornbeam and rose.

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, there is a pond within woodland approximately 100m north west the Site. There is also a record of great crested newts from 2006 for this pond. OS maps also indicate the presence of a number of other ponds within 500m of the Site, especially to the south. However, suitable terrestrial habitat for great crested newts within the Site is very limited, comprising only the hedge, and the probability of them occurring outside of these is considered to be very low.

Breeding birds – In hedge.

Bats – There are no trees or structures with potential to be used as bat roosts within the Site

Dormice – Moderate potential in hedge due to limited connectivity with hedges and woodland.

Badgers – Low potential for setts within the hedge, but with or without setts badgers may also use any or part of the 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 ponds within 500m of the Site, targeting especially those with greater suitability for great crested newts and those closest to the Site, such as the one to the north west.

Dormice – (April – November) – in hedge

INDICATIVE ECOLOGICAL APPRAISAL

Low value – species poor grasslands, but the hedge has value.
The Site has 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 hedge.
- 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 ponds near to the Site, 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).
- 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.
- 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.
- Strengthen boundary vegetation by planting appropriate native species, for example on the northern, 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.

