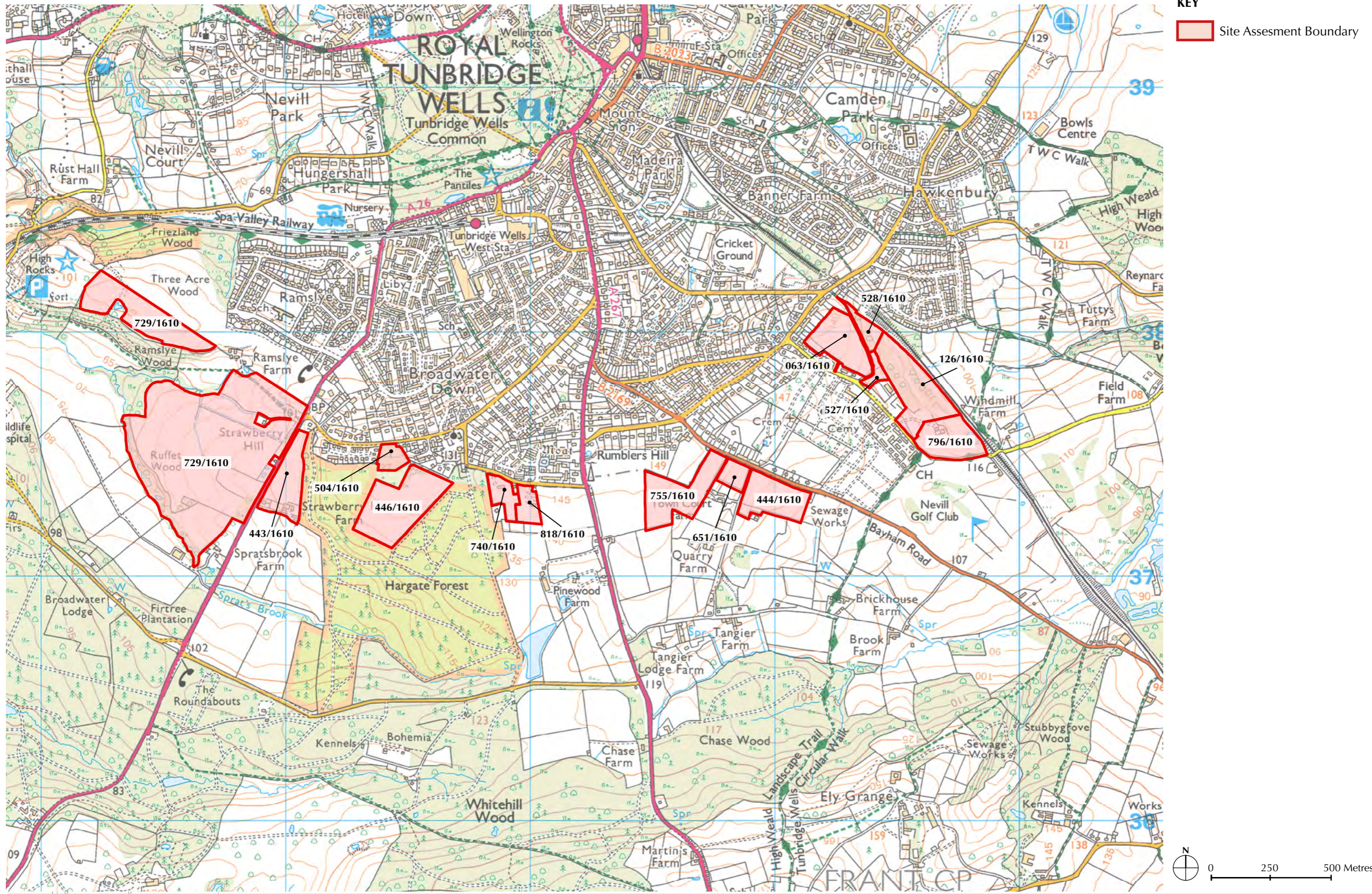
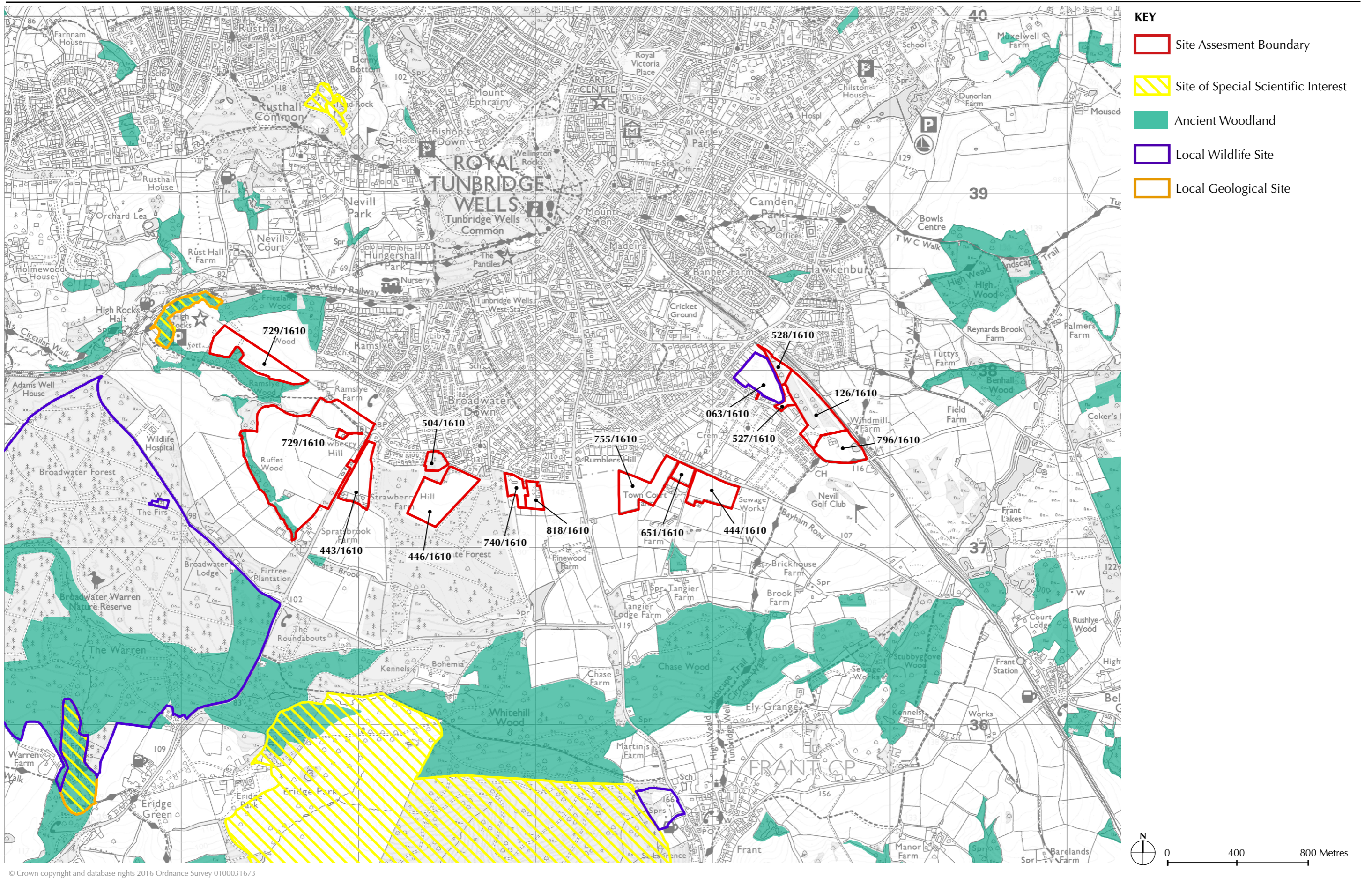


14.0 EDGE OF TUNBRIDGE WELLS SITES





| ECOLOGICAL ASSESSMENT | |
|---|---|
| Settlement/Area: | Edge of Tunbridge Wells |
| Site Address: | Land at Benhall Mill Road, Frant |
| Site Reference Number: | 063/1610 |
| Site Summary Description | |
| A 4.07ha unmanaged field that has developed into a mosaic of diversely structured grassland with scattered and dense scrub, scattered (mostly young) trees and recently developed woodland. An old hedge is present on a bank on the eastern boundary. | |
| ECOLOGICAL BASELINE | |
| Green Infrastructure Context (see Figure 16.1) | |
| The Site is located on the southern urban fringe of Tunbridge Wells which gives way southward to a characteristic High Weald landscape of small to medium sized fields, including both grassland and arable, set within a relatively extensive and intact hedgerow network which includes frequent trees. Woodland, including Ancient Woodland, is relatively plentiful and includes both large and small parcels. The Site is bordered by residential development to the north west and south west, and by a mix of woodland and grassland to the north east and south east. Approximately 80% of the Site comprises the Hawkenbury Farm Meadows LWS, a mosaic of diversely structured grassland with scattered and dense scrub, scattered (mostly young) trees and recently developed woodland. | |
| Desk Study : Designated Sites within 1km (See Figure 16.2) | Distance from Site |
| <ul style="list-style-type: none"> Approximately 80% of the Site comprises the Hawkenbury Farm Meadows LWS. The Citation summary describes the Site as follows: “Traditionally farmed unploughed meadow with patches of botanical interest and adjacent intact mature hedgerows”. | <ul style="list-style-type: none"> Within Site |
| Desk Study: BAP Priority Habitats within 1km | Distance from Site |
| <ul style="list-style-type: none"> Deciduous broadleaved woodland – BAP priority habitat | <ul style="list-style-type: none"> Within Site |
| Species Desk Study: Protected and Notable Species within 1km | |
| <p>Protected Species</p> <p><i>Pipistrellus pipistrellus</i> Common pipistrelle <i>Pipistrellus pygmaeus</i> Soprano pipistrelle</p> <p>Sussex Rare Species Inventory</p> <p><i>Adrena tibialis</i> <i>Andrena trimmerana</i> Trimer’s mining bee <i>Osmia leaiana</i></p> <p>Notable Bird Inventory</p> <p><i>Hirundo rustica</i> Swallow</p> <p>Invasive Alien Species Inventory</p> <p><i>Campylopus introflexus</i> Heath Star Moss <i>Cotoneaster horizontalis</i> Wall cotoneaster</p> | |

| | |
|--------------------------------------|------------------------------|
| <i>Cotoneaster simonsii</i> | Himalayan cotoneaster |
| <i>Crocsmia aurea</i> | Montbretia |
| <i>Fallopia japonica</i> | Japanese knotweed |
| <i>Fallopia sachalinensis</i> | Giant Knotweed |
| <i>Impatiens glandulifera</i> | Indian balsam |
| <i>Lamiastrum galeobdolon subsp.</i> | Variiegated yellow archangel |
| <i>Petasites fragrans</i> | Winter Heliotrope |
| <i>Prunus laurocerasus</i> | Cherry laurel |
| <i>Rhododendron</i> sp. | Rhododendron |

Field Survey: Habitat Descriptions (See Figure 16/063)

Broadleaved semi-natural woodland - a small area of recently developed woodland in the south east of the Site comprising dense young oak with occasional birch and willow. Species poor field layer of mostly nettle, bramble and ivy.

Dense and scattered scrub – comprises mostly scattered young trees of especially oak and ash as well as willows and rowan. Also large stands of bramble, especially around the edges of the field.

Species-rich hedge with trees – an old hedge is present on the eastern boundary, adjacent to the PRow. It includes a range of species including mature oak and ash, as well as hazel, holly, hawthorn and blackthorn. Honeysuckle *Lonicera periclymenum* and black bryony *Tamus communis* are present and the field layer, while not especially rich, supports a number of woodland species, such as broad buckler fern *Dryopteris dilatata* and remote sedge *Carex remota*.

Poor semi-improved grassland – generally species poor and tall unmanaged sward, much of which dominated by coarse grasses, such as false oat grass *Arrhenatherum elatius* and Yorkshire fog *Holcus lanatus*. Other grasses included common bent *Agrostis capillaris* and sweet vernal-grass *Anthoxanthum odoratum*. However, parts are less coarse, for example in the north of the Site, and include a number of forb species characteristic of less intensively managed grasslands, such as common knapweed *Centaurea nigra*, meadow vetchling *Lathyrus pratensis*, lesser stitchwort *Stellaria graminea*, common sorrel *Rumex acetosa* and bird's foot trefoil *Lotus corniculatus*.

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 Protected and Notable Species

Great crested newts – There are no ponds within the Site, However, there is a pond at Little Mount Farm, approximately 450m from the southern edge of the Site. All habitats within the Site represent suitable terrestrial habitat for great crested newts. However, given the distance from the pond and the widespread availability of suitable habitat closer to it, it is considered the probability of great crested newts being present within the Site is low.

Reptiles – high potential due to combination of structurally diverse, including tall grassland and scrub

Breeding birds – in all woody vegetation and stands of bramble

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

Dormice – some potential along hedgerow corridor, including woodland as well as dense continuous scrub

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

recorded during the survey.

Recommendations for Further Survey (and optimal survey timings)

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

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

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

Dormice – (April – November) in suitable habitat.

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

INDICATIVE ECOLOGICAL APPRAISAL

Moderate value – the hedgerow, including mature trees, is of greatest value but the Site as a whole and its mosaic character has the potential to support a range of notable species, including protected species. The Site forms part of the Hawkenbury Farm Meadows LWS. The citation for this notes species-rich grassland (including wet grassland) at least in parts of the Site. However, based on the current survey much of this interest appears to have been lost since the citation was prepared due to lack of, or inappropriate, management.

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 hedgerow, including the mature trees and their features, on the eastern boundary
- Buffering the hedgerow with retained and positively managed habitat
- Retaining at least part of the existing grassland, for example the more floristically species rich area in the north 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.
- 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 retained habitat including buffer strip, see 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 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 the hedgerow and scrub.
- 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, scrub, hedges, mature trees and grassland.
- Where appropriate gap-up planting of appropriate native trees and shrubs, to strengthen site boundary vegetation, for example where it adjoins residential properties and to link to adjoining habitat, and incorporating retained trees where relevant.
- Habitat creation, ideally located adjacent to retained or adjoining habitat, for example a field corner, or to form habitat corridors or links. To include for example:
 - Wildlife pond(s), included for example as part of a SuDS scheme;
 - Species-rich grassland and associated features for supporting a variety of terrestrial invertebrates;
 - Scrub and trees; and
 - Creation of dead wood habitats and other habitat piles.
- Erection of bat boxes suitable for a range of bat species, on retained trees or incorporated into buildings where they will remain unlit;
- Erection of bird boxes suitable for a range of bird species on retained trees or incorporated into buildings;
- Implementation of good management practices for retained habitats, notably hedgerow and tree management.



| ECOLOGICAL ASSESSMENT | |
|---|---|
| Settlement/Area: | Edge of Tunbridge Wells |
| Site Address: | Land at Little Mount Farm, Benhall Mill Road, Tunbridge Wells |
| Site Reference Number: | 126/1610 |
| Site Summary Description | |
| Largely two areas of developing broadleaved plantation separated by species poor grassland comprising a total of 6.11ha. A small and rather disturbed area of broadleaved semi-natural woodland is present in the south west of the Site, adjoining Benhall Mill Road. | |
| ECOLOGICAL BASELINE | |
| Green Infrastructure Context (see Figure 16.1) | |
| The Site is located on the southern urban fringe of Tunbridge Wells which gives way southward to a characteristic High Weald landscape of small to medium sized fields, including both grassland and arable, set within a relatively extensive and intact hedgerow network which includes frequent trees. Woodland, including Ancient Woodland, is relatively plentiful and includes both large and small parcels. The Site is bordered to the south and west by residential properties set in large grounds. To the north west lie field comprising grassland, scrub and developing woodland, much of which is included within the Hawkenbury Farm Meadows LWS. The eastern boundary borders a railway line embankment lined with trees. | |
| Desk Study : Designated Sites within 1km (See Figure 16.2) | Distance from Site |
| <ul style="list-style-type: none"> The Site lies immediately adjacent to the Hawkenbury Farm Meadows LWS. The Citation summary describes the Site as follows: <i>“Traditionally farmed unploughed meadow with patches of botanical interest and adjacent intact mature hedgerows”</i>. | <ul style="list-style-type: none"> Immediately adjacent to the Site. |
| Desk Study: BAP Priority Habitats within 1km | Distance from Site |
| Ancient & semi-natural woodland – Benhall Wood Ancient & semi-natural woodland – High Wood Ancient & semi-natural woodland – Sussex Shaw | 600m East 900m East 500m North |
| Desk Study: Protected and Notable Species | |
| <p>Protected Species</p> <p><i>Pipistrellus pipistrellus</i> Common pipistrelle <i>Pipistrellus pygmaeus</i> Soprano pipistrelle</p> <p><u>Sussex Rare Species Inventory</u></p> <p><i>Adrena tibialis</i> <i>Andrena trimmerana</i> Trimer’s mining bee <i>Osmia leaiana</i></p> <p>Notable Bird Inventory</p> <p><i>Hirundo rustica</i> Swallow</p> <p>Invasive Alien Species Inventory</p> <p><i>Cotoneaster horizontalis</i> Wall cotoneaster</p> | |

| | |
|---|-------------------|
| <i>Crocosmia aurea</i> | Montbretia |
| <i>Fallopia japonica</i> | Japanese knotweed |
| <i>Impatiens glandulifera</i> | Indian balsam |
| <i>Prunus laurocerasus</i> | Cherry laurel |
| <i>Rhododendron</i> sp. | Rhododendron |
| Field Survey: Habitat Descriptions (See Figure 16/126) | |
| <p>Broadleaved semi-natural woodland - a small area beside Benhall Mill Road with canopy of mostly oak and birch, but also sycamore. Shrub layer appears to have been in part thinned or removed but includes holly. Field layer species poor, partly grassy and much bare but includes foxglove <i>Digitalis purpurea</i>. Planted ornamental tree(s) present.</p> <p>Broadleaved plantation – homogenous even-aged (estimated 20-25 years) plantation of mostly broadleaved trees, including both native and non-native species such as pedunculate oak, ash, wild cherry, lime, walnut and Norway maple. There is more or less no shrub layer and the field layer is very species poor, comprising largely of nettle, bramble and ivy with much bare ground. Also includes what appears to be an avenue of giant redwoods either side of the grassland strip that divides the two plantation areas. There is a mature oak on the southern edge of the western plantation.</p> <p>Poor semi-improved grassland – species poor, tall sward (at the time of survey) dominated by grasses, false oat grass <i>Arrhenatherum elatius</i>, Yorkshire fog <i>Holcus lanatus</i> and common bent <i>Agrostis capillaris</i>, with very little forb content. It is present between the plantation, to the south (part of which is mown as amenity grassland) and along the western boundary.</p> <p>Tall ruderal – there is a small area of tall ruderal, comprising nettle, thistles and coarse grasses etc, on the north western boundary, between the edge of the plantation and the boundary fence.</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 Protected and Notable Species | |
| <p>Great crested newts – There are no ponds within the Site However, there is a pond at Little Mount Farm, less than 100m from the southern edge of the Site. Habitats within the Site, including the woodland and plantations represent suitable terrestrial habitat for great crested newts.</p> <p>Reptiles – high potential among tall grassland and ruderal, especially along boundaries with woodland and plantation.</p> <p>Breeding birds – in woodland and plantation.</p> <p>Bats – Trees and mature trees in south west of the Site in particular, with features such as cracks and cavities have potential to be used as roosts. Given the habitats and features present activity, including foraging and commuting, is likely throughout, but especially in and around woodland and trees, scrub and hedges.</p> <p>Dormice – limited potential in the woodland and plantation.</p> <p>Badgers – Some potential for setts within the woodland and plantation, but with or without setts badgers may also use any or all of the Site for foraging. However, neither setts nor foraging signs are recorded during the survey.</p> | |

Recommendations for Further Survey (and optimal survey timings)

Great crested newts – (March – June) of the pond at Little Mount Farm.

Reptiles – (May – June, September – October) especially along boundaries between grassland and woodland/plantation.

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

Dormice – (April – November) in woodland and plantation.

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

INDICATIVE ECOLOGICAL APPRAISAL

Low to Moderate value - the grassland and plantations (due to their homogenous structure) are of relatively low value. The small woodland area, though disturbed, is of more diverse and contains mature trees and is therefore of somewhat higher value. The Site has some potential to support notable species, including 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 in the south west, including the mature trees and their features, and enhance through positive management.
- 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.

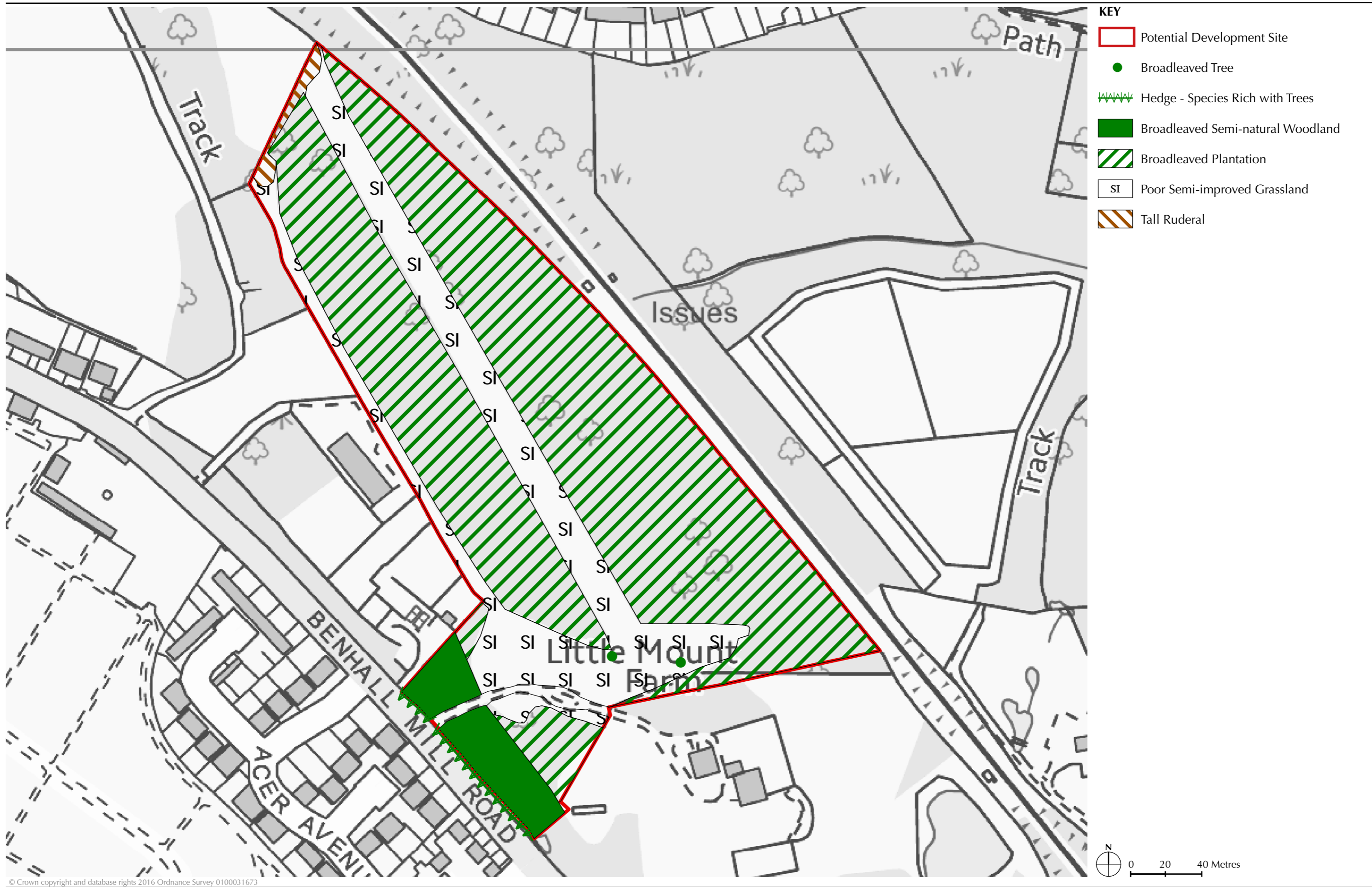
- Implementation of a Construction and Environmental Management Plan (CEMP) to manage site-specific issues relating to the potential impacts of construction on ecological features of interest.
- Offset buffers to protect retained habitats (minimum 10m).
- Use of protective fencing to define construction 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 the pond at Little Mount Farm 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.
- 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 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, retention of appropriate habitat and links to adjoining habitat.
- 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, scrub, hedges, mature trees and grassland.
- Where appropriate gap-up planting of appropriate native trees and shrubs, to strengthen site boundary vegetation, for example where it adjoins residential properties and to link to adjoining habitat, and incorporating retained trees where relevant.
- 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;
- Creation and/or retention of dead wood habitats and other habitat piles to create refuges and foraging habitat for a variety of species, including a range of invertebrates;
- 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;
- Implementation of good management practices for retained habitats, notably hedgerow and tree management.



- KEY**
- Potential Development Site
 - Broadleaved Tree
 - ⚡ Hedge - Species Rich with Trees
 - Broadleaved Semi-natural Woodland
 - Broadleaved Plantation
 - SI Poor Semi-improved Grassland
 - Tall Ruderal

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| ECOLOGICAL ASSESSMENT | | | | | | | | | | | | | | | | | |
|---|--|---------------------------------|----------------|---------------------------|--------------------|---------------------|-------|-------------------------|---------------|------------------------------|-------------|------------------------------|---------------|----------------------|---------------|--------------------------|--------|
| Settlement/Area: | Edge of Tunbridge Wells | | | | | | | | | | | | | | | | |
| Site Address: | Strawberry Hill Farm, Eridge Road, Tunbridge Wells | | | | | | | | | | | | | | | | |
| Site Reference Number: | 443/1610 | | | | | | | | | | | | | | | | |
| Site Summary Description | | | | | | | | | | | | | | | | | |
| <p>*Due to no permission for access the Site was viewed only from the southern boundary and not closely inspected.*</p> <p>A 3.82 ha. poor semi-improved grassland (pasture) with species poor hedge on western boundary including mature oaks. Buildings at southern end include houses and sheds. Viewed only from southern edge.</p> | | | | | | | | | | | | | | | | | |
| ECOLOGICAL BASELINE | | | | | | | | | | | | | | | | | |
| Green Infrastructure Context (see Figure 16.1) | | | | | | | | | | | | | | | | | |
| <p>The Site is located on the southern urban fringe of Tunbridge Wells which gives way southward to a characteristic 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. Residential development lies to the north of the Site. The A26 forms the Site's western border and plantation and broadleaved woodland lie immediately to its east.</p> | | | | | | | | | | | | | | | | | |
| Desk Study : Designated Sites (See Figure 16.2) | Distance from Site | | | | | | | | | | | | | | | | |
| <ul style="list-style-type: none"> Approximately 20% of The Warren & Broadwater Forest LWS is less than 1km from the Site. The Citation summary describes the Site as follows: "<i>Acidic Valley Mire rich in bryophytes within historic woodland with heathland supporting nightjar, tree pipit and hobby</i>" | <ul style="list-style-type: none"> Approximately 700m south west of the Site | | | | | | | | | | | | | | | | |
| Desk Study: BAP Priority Habitats within 1km | Distance from Site | | | | | | | | | | | | | | | | |
| <ul style="list-style-type: none"> Ancient & semi-natural woodland – Eridge Park Ancient & semi-natural woodland – Ramslye Wood Ancient & semi-natural woodland – Ruffet Wood Ancient & semi-natural woodland – Friezland Wood Ancient & semi-natural woodland – Spratsbrook Farm Shaw Lowland Heath BAP priority habitat (un-named) Lowland Heath BAP priority habitat (un-named) | <ul style="list-style-type: none"> 890m South 550m West 330m South West 600m NNW 400m South 550m West 330m South West | | | | | | | | | | | | | | | | |
| Desk Study: Protected and Notable Species within 1km | | | | | | | | | | | | | | | | | |
| <p>Protected Species</p> <table> <tr> <td><i>Muscardinus avellanarius</i></td> <td>Hazel Dormouse</td> </tr> <tr> <td><i>Triturus cristatus</i></td> <td>Great Crested Newt</td> </tr> <tr> <td><i>Vipera berus</i></td> <td>Adder</td> </tr> <tr> <td><i>Zootoca vivipara</i></td> <td>Common lizard</td> </tr> </table> <p>Sussex BAP Species</p> <table> <tr> <td><i>Coenonympha pamphilus</i></td> <td>Small heath</td> </tr> <tr> <td><i>Ecliptopera silaceata</i></td> <td>Small Phoenix</td> </tr> <tr> <td><i>Erynnis tages</i></td> <td>Dingy skipper</td> </tr> <tr> <td><i>Hoplodrina blanda</i></td> <td>Rustic</td> </tr> </table> | | <i>Muscardinus avellanarius</i> | Hazel Dormouse | <i>Triturus cristatus</i> | Great Crested Newt | <i>Vipera berus</i> | Adder | <i>Zootoca vivipara</i> | Common lizard | <i>Coenonympha pamphilus</i> | Small heath | <i>Ecliptopera silaceata</i> | Small Phoenix | <i>Erynnis tages</i> | Dingy skipper | <i>Hoplodrina blanda</i> | Rustic |
| <i>Muscardinus avellanarius</i> | Hazel Dormouse | | | | | | | | | | | | | | | | |
| <i>Triturus cristatus</i> | Great Crested Newt | | | | | | | | | | | | | | | | |
| <i>Vipera berus</i> | Adder | | | | | | | | | | | | | | | | |
| <i>Zootoca vivipara</i> | Common lizard | | | | | | | | | | | | | | | | |
| <i>Coenonympha pamphilus</i> | Small heath | | | | | | | | | | | | | | | | |
| <i>Ecliptopera silaceata</i> | Small Phoenix | | | | | | | | | | | | | | | | |
| <i>Erynnis tages</i> | Dingy skipper | | | | | | | | | | | | | | | | |
| <i>Hoplodrina blanda</i> | Rustic | | | | | | | | | | | | | | | | |

| | |
|---|---------------------------|
| <i>Limenitis camilla</i> | White Admiral |
| <i>Pyrgus malvae</i> | Grizzled Skipper |
| Sussex Rare Species Inventory | |
| <i>Apatura iris</i> | Purple Emperor |
| <i>Bromus secalinus</i> | Rye Brome |
| <i>Evergestis pallidata</i> | Chequered Pearl |
| <i>Metriopectera roeselii</i> | Roesel's Bush-cricket |
| <i>Nysson trimaculatus</i> | |
| <i>Osmunda regalis</i> | Royal fern |
| <i>Tetheella fluctuosa</i> | Satin Lutestring |
| Notable Bird Inventory | |
| <i>Apus apus</i> | Swift |
| <i>Dendrocopos minor</i> | Lesser Spotted Woodpecker |
| <i>Loxia curvirostra</i> | Common Crossbill |
| <i>Lullula arborea</i> | Woodlark |
| <i>Vanellus vanellus</i> | Lapwing |
| Invasive Alien Species Inventory | |
| <i>Cotoneaster horizontalis</i> | Wall cotoneaster |
| <i>Cotoneaster simonsii</i> | Himalayan cotoneaster |
| <i>Fallopia japonica</i> | Japanese knotweed |
| <i>Fallopia sachalinensis</i> | Giant Knotweed |
| <i>Impatiens glandulifera</i> | Indian balsam |
| <i>Petasites fragrans</i> | Winter Heliotrope |
| <i>Rhododendron</i> sp. | Rhododendron |
| Field Survey: Habitat Descriptions (See Figure 16/443) | |
| <p>Poor semi-improved grassland – limited number of common and widespread species. Species poor hedge – largely hawthorn and ash and very limited representation of other species. Species poor hedge with trees – with mature oak. Buildings – house(s) with pitched/tiled roof and number of single storey brick sheds with corrugated asbestos roofs.</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 Protected and Notable Species | |
| <p>Great crested newts – at least one pond is present on the western side of the A26, opposite the Site. Given the presence of the road, which represents a major barrier to dispersal, and the very limited suitable terrestrial habitat present (largely restricted to the hedgerow) it is considered very unlikely that great crested newts will occur within the Site. Bats – Trees and mature trees in particular, with features such as cracks and cavities have potential to be used as roosts in mature oaks on western boundary and buildings (TNs). Given the habitats and features present, activity, including foraging and commuting, is likely throughout, but especially in and around woodland and hedges. Dormice – limited potential in hedge on western boundary and in woodland to the east.</p> | |

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

Recommendations for Further Survey (and optimal survey timings)

Great crested newts – (March – June) of pond to the west of the A26.

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 hedge and woodland edge.

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

INDICATIVE ECOLOGICAL APPRAISAL

Low value – although mature oaks in hedge are considered of moderate value. The habitats and features present have limited 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 hedge 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 woodland to the east
- If great crested newts are found in the pond to the west of the A26 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 should not be carried out during the bird breeding season, which is March-August inclusive. If this is not possible then the relevant vegetation 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 the hedge on the western boundary.
- 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 hedges and mature trees.
- Strengthen boundary vegetation, for example by planting appropriate native species to form hedges.
- Habitat creation, ideally located adjacent to retained or adjoining habitat, for example a field corner, or to form habitat corridors or links. To include for example:
 - Wildlife pond(s), included for example as part of a SuDS scheme;
 - Species-rich grassland and associated features for supporting a variety of terrestrial invertebrates;
 - Scrub and trees; and
 - Creation of dead wood habitats and other habitat piles to create refuges and foraging habitat for a variety of species, including a range of invertebrates.
- 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;
- Implementation of good management practices for retained habitats, notably hedgerow and tree management.



| ECOLOGICAL ASSESSMENT | | | | | | | | | | | | | | | | | |
|--|--|----------------------------------|------------------------|------------------------------|-------------------------|------------------------------|-------------|----------------------|---------------|--------------------------|---------------|------------------------|--|---------------------------|---------------------|------------------------------|---------------------|
| Settlement/Area: | Edge of Tunbridge Wells | | | | | | | | | | | | | | | | |
| Site Address: | Land to South of Bayham Road, Tunbridge Wells | | | | | | | | | | | | | | | | |
| Site Reference Number: | 444/1610 | | | | | | | | | | | | | | | | |
| Site Summary Description | | | | | | | | | | | | | | | | | |
| <p>A 3.91ha. poor semi-improved grassland field with hedges on all boundaries. That on the eastern boundary includes a mature oak. There is a smaller grassland field to the south beside Stone Farm which is richer with species. A species poor hedge is present on the western and part of eastern boundary and there are birches on southern boundary.</p> | | | | | | | | | | | | | | | | | |
| ECOLOGICAL BASELINE | | | | | | | | | | | | | | | | | |
| Green Infrastructure Context (see Figure 16.1) | | | | | | | | | | | | | | | | | |
| <p>The Site is located on the southern urban fringe of Tunbridge Wells which gives way southward to a characteristic 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. Bayham Road forms the Site's northern boundary with hedge lined pasture and occasional mature trees lie to its east, west and south.</p> | | | | | | | | | | | | | | | | | |
| Desk Study: Designated Sites within 1km (See Figure 16.2) | Distance from Site | | | | | | | | | | | | | | | | |
| <ul style="list-style-type: none"> The Site is less than 1km from the Hawkenbury Farm Meadows LWS. The The Citation summary describes the Site as follows: <i>"Traditionally farmed unploughed meadow with patches of botanical interest and adjacent intact mature hedgerows."</i> | <ul style="list-style-type: none"> Approximately 550m to the north east of the Site. | | | | | | | | | | | | | | | | |
| Desk Study: BAP Priority Habitats within 1km | Distance from Site | | | | | | | | | | | | | | | | |
| <ul style="list-style-type: none"> Ancient & semi-natural woodland – Tangier Farm Shaw Ancient & semi-natural woodland – Chase Wood Ancient & semi-natural woodland – Stubbygrove Wood Ancient & semi-natural woodland – Brook Farm Shaw | <ul style="list-style-type: none"> 350m South 850m South 900m South East 900m South East | | | | | | | | | | | | | | | | |
| Desk Study: Protected and Notable Species within 1km | | | | | | | | | | | | | | | | | |
| <p>Protected Species</p> <table> <tr> <td><i>Pipistrellus pipistrellus</i></td> <td>Common pipistrelle bat</td> </tr> <tr> <td><i>Pipistrellus pygmaeus</i></td> <td>Soprano pipistrelle bat</td> </tr> </table> <p>Sussex BAP Species</p> <table> <tr> <td><i>Coenonympha pamphilus</i></td> <td>Small heath</td> </tr> <tr> <td><i>Erynnis tages</i></td> <td>Dingy skipper</td> </tr> <tr> <td><i>Limenitis camilla</i></td> <td>White Admiral</td> </tr> </table> <p>Sussex Rare Species Inventory</p> <table> <tr> <td><i>Adrena tibialis</i></td> <td></td> </tr> <tr> <td><i>Andrena trimmerana</i></td> <td>Trimer's mining bee</td> </tr> <tr> <td><i>Orthotrichum striatum</i></td> <td>Shaw's Bristle-moss</td> </tr> </table> | | <i>Pipistrellus pipistrellus</i> | Common pipistrelle bat | <i>Pipistrellus pygmaeus</i> | Soprano pipistrelle bat | <i>Coenonympha pamphilus</i> | Small heath | <i>Erynnis tages</i> | Dingy skipper | <i>Limenitis camilla</i> | White Admiral | <i>Adrena tibialis</i> | | <i>Andrena trimmerana</i> | Trimer's mining bee | <i>Orthotrichum striatum</i> | Shaw's Bristle-moss |
| <i>Pipistrellus pipistrellus</i> | Common pipistrelle bat | | | | | | | | | | | | | | | | |
| <i>Pipistrellus pygmaeus</i> | Soprano pipistrelle bat | | | | | | | | | | | | | | | | |
| <i>Coenonympha pamphilus</i> | Small heath | | | | | | | | | | | | | | | | |
| <i>Erynnis tages</i> | Dingy skipper | | | | | | | | | | | | | | | | |
| <i>Limenitis camilla</i> | White Admiral | | | | | | | | | | | | | | | | |
| <i>Adrena tibialis</i> | | | | | | | | | | | | | | | | | |
| <i>Andrena trimmerana</i> | Trimer's mining bee | | | | | | | | | | | | | | | | |
| <i>Orthotrichum striatum</i> | Shaw's Bristle-moss | | | | | | | | | | | | | | | | |

Notable Bird Inventory

| | |
|------------------------|---------|
| <i>Corvus corax</i> | Raven |
| <i>Hirundo rustica</i> | Swallow |

Invasive Alien Species Inventory

| | |
|---------------------------------|-------------------|
| <i>Campylopus introflexus</i> | Heath Star Moss |
| <i>Cotoneaster horizontalis</i> | Wall cotoneaster |
| <i>Crocsmia aurea</i> | Montbretia |
| <i>Fallopia japonica</i> | Japanese knotweed |
| <i>Impatiens glandulifera</i> | Indian balsam |
| <i>Prunus laurocerasus</i> | Cherry laurel |

Field Survey: Habitat Descriptions (See Figure 16/444)

Arable – small cultivated area in south west - no crop present and weed flora minimal.

Poor semi-improved grassland – larger northern field very species poor and grassy with a low to medium height sward. Species include Yorkshire fog *Holcus lanatus*, common bent *Agrostis capillaris*, sweet vernal-grass *Anthoxanthum odoratum* and false oat-grass *Arrhenatherum elatius*. Broadleaved dock *Rumex obtusifolius* frequent but forb content is low. The smaller southern field is richer and includes species characteristic of less ‘improved’ grassland e.g. common knapweed *Centaurea nigra*, greater bird’s foot trefoil *Lotus pedunculatus*, meadow vetchling *Lathyrus pratensis*, ox-eye daisy *Leucanthemum vulgare* etc. Soft rush *Juncus effusus* is frequent in the southern part.

Scattered broadleaved trees – line of birches on southern boundary.

Species poor hedges – dominated by hawthorn with low representation of other species.

Species rich hedge – incl. range of species such as hawthorn, blackthorn, hazel, willows, rose, oak, ash etc.

Species rich hedge with trees - as above but with mature oak.

Field Survey: Notable and Protected Species

Mature oak - on eastern boundary.

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 – OS maps indicate the presence of ponds at Quarry Farm and woodland to the east, approximately 100-150m to the south of the Site. The status of these is unknown. Given the availability of suitable terrestrial habitat close to the ponds and the very limited suitable terrestrial habitat present within the Site (largely restricted to the hedgerows) it is considered unlikely that great crested newts will occur within it.

Reptiles – some potential along boundaries/hedges but dependent on management.

Bats – Trees and mature trees along the eastern boundary in particular, with features such as cracks and cavities have potential to be used as roosts. Foraging and commuting activity may also occur along all the Site’s boundaries.

Dormice – Limited potential in hedges.

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

Recommendations for Further Survey (and optimal survey timings)

Great crested newts – (March – June) of ponds at Quarry Farm and woodland to the east.

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

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

Dormice – (April – November) along site hedgerow boundaries.

Badger – (Year round but Spring / Autumn optimal) of whole site, but particularly of site boundaries.

INDICATIVE ECOLOGICAL APPRAISAL

Low to Moderate value - grassland and arable in the northern field is of low value but hedges and mature trees and grassland in southern field are considered of moderate value. The habitats and features present have some potential to support notable/protected species.

Impact Avoidance

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

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

Outline Mitigation

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

- 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 any of the ponds at Quarry Farm and woodland to the east 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 retained habitat including buffer strip, see 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 should be inspected by a suitably qualified ecologist for the presence of breeding birds prior to the

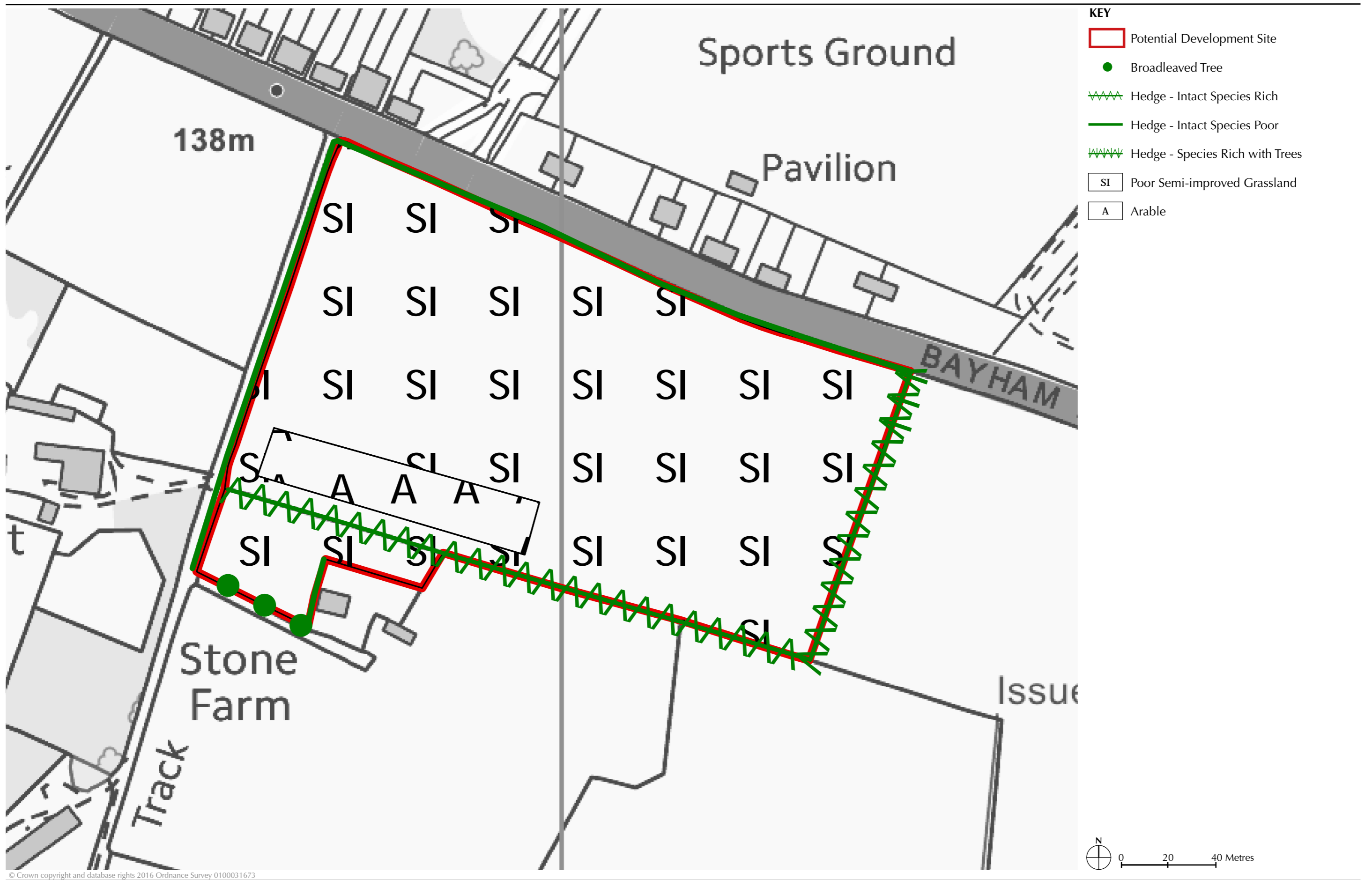
commencement of works.

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



| ECOLOGICAL ASSESSMENT | | | | | | | | | | | | | | | | | | | |
|--|---|---------------------------------|----------------|---------------------------|--------------------|---------------------|-------|------------------------------|-------------|------------------------------|---------------|----------------------|---------------|--------------------------|--------|--------------------------|---------------|---------------------------------|----------------|
| Settlement/Area: | Edge of Tunbridge Wells | | | | | | | | | | | | | | | | | | |
| Site Address: | Montegue Meadows, South of Broadwater Down, Tunbridge Wells | | | | | | | | | | | | | | | | | | |
| Site Reference Number: | 446/1610 | | | | | | | | | | | | | | | | | | |
| Site Summary Description | | | | | | | | | | | | | | | | | | | |
| <p>An unmanaged grassland field with variable structure and species composition and invading scattered and dense scrub. The Site includes small areas of woodland in the north and a small woodland edge pond in the north west. The Site is also adjacent to and set within Hargate Forest (Woodland Trust – woodland, plantation, heathland etc.)</p> | | | | | | | | | | | | | | | | | | | |
| ECOLOGICAL BASELINE | | | | | | | | | | | | | | | | | | | |
| Green Infrastructure Context (see Figure 16.1) | | | | | | | | | | | | | | | | | | | |
| <p>The Site is located on the southern urban fringe of Tunbridge Wells which gives way southward to a characteristic High Weald landscape of small to medium sized fields, including both grassland and arable, set within a relatively extensive and intact hedgerow network which includes frequent trees. Woodland, including Ancient Woodland, is relatively plentiful and includes both large and small parcels. The Site is separated from the southern extent of the built development of Tunbridge Wells by broadleaved woodland along its northern boundary. Further woodland lies east west and south, separated along its south east and south western boundaries by Lowland Heath BAP priority habitat.</p> | | | | | | | | | | | | | | | | | | | |
| Desk Study : Designated Sites within 1km (See Figure 16.2) | Distance from Site | | | | | | | | | | | | | | | | | | |
| <ul style="list-style-type: none"> Approximately 5% of The Warren & Broadwater Forest LWS is less than 1km from the Site. The Citation summary describes the Site as follows: <i>“Acidic Valley Mire rich in bryophytes within historic woodland with heathland supporting nightjar, tree pipit and hobby.”</i> | <ul style="list-style-type: none"> Approximately 900m south west of the Site | | | | | | | | | | | | | | | | | | |
| Desk Study: BAP Priority Habitats within 1km | Distance from Site | | | | | | | | | | | | | | | | | | |
| <ul style="list-style-type: none"> Ancient & semi-natural woodland – Spratsbrook Farm Shaw Ancient & semi-natural woodland – Whitehill Wood Lowland Heath BAP priority habitat (un-named) Lowland Heath BAP priority habitat (un-named) | <ul style="list-style-type: none"> 550m South West 750m South Adjacent to site (West) Adjacent to site (East) | | | | | | | | | | | | | | | | | | |
| Desk Study: Protected and Notable Species within 1km | | | | | | | | | | | | | | | | | | | |
| <p>Protected Species Inventory</p> <table border="0"> <tr> <td><i>Muscardinus avellanarius</i></td> <td>Hazel Dormouse</td> </tr> <tr> <td><i>Triturus cristatus</i></td> <td>Great Crested Newt</td> </tr> <tr> <td><i>Vipera berus</i></td> <td>Adder</td> </tr> </table> <p>Sussex BAP Species</p> <table border="0"> <tr> <td><i>Coenonympha pamphilus</i></td> <td>Small heath</td> </tr> <tr> <td><i>Ecliptopera silaceata</i></td> <td>Small Phoenix</td> </tr> <tr> <td><i>Erynnis tages</i></td> <td>Dingy skipper</td> </tr> <tr> <td><i>Hoplodrina blanda</i></td> <td>Rustic</td> </tr> <tr> <td><i>Limenitis camilla</i></td> <td>White Admiral</td> </tr> <tr> <td><i>Muscardinus avellanarius</i></td> <td>Hazel Dormouse</td> </tr> </table> | | <i>Muscardinus avellanarius</i> | Hazel Dormouse | <i>Triturus cristatus</i> | Great Crested Newt | <i>Vipera berus</i> | Adder | <i>Coenonympha pamphilus</i> | Small heath | <i>Ecliptopera silaceata</i> | Small Phoenix | <i>Erynnis tages</i> | Dingy skipper | <i>Hoplodrina blanda</i> | Rustic | <i>Limenitis camilla</i> | White Admiral | <i>Muscardinus avellanarius</i> | Hazel Dormouse |
| <i>Muscardinus avellanarius</i> | Hazel Dormouse | | | | | | | | | | | | | | | | | | |
| <i>Triturus cristatus</i> | Great Crested Newt | | | | | | | | | | | | | | | | | | |
| <i>Vipera berus</i> | Adder | | | | | | | | | | | | | | | | | | |
| <i>Coenonympha pamphilus</i> | Small heath | | | | | | | | | | | | | | | | | | |
| <i>Ecliptopera silaceata</i> | Small Phoenix | | | | | | | | | | | | | | | | | | |
| <i>Erynnis tages</i> | Dingy skipper | | | | | | | | | | | | | | | | | | |
| <i>Hoplodrina blanda</i> | Rustic | | | | | | | | | | | | | | | | | | |
| <i>Limenitis camilla</i> | White Admiral | | | | | | | | | | | | | | | | | | |
| <i>Muscardinus avellanarius</i> | Hazel Dormouse | | | | | | | | | | | | | | | | | | |

| | |
|--|---------------------------|
| <i>Pyrgus malvae</i> | Grizzled Skipper |
| Notable Bird Inventory | |
| <i>Dendrocopos minor</i> | Lesser Spotted Woodpecker |
| <i>Lullula arborea</i> | Woodlark |
| <i>Vanellus vanellus</i> | Lapwing |
| Sussex Rare Species Inventory | |
| <i>Apatura iris</i> | Purple Emperor |
| <i>Bromus secalinus</i> | Rye Brome |
| <i>Evergestis pallidata</i> | Chequered Pearl |
| <i>Metroptera roeselii</i> | Roesel's Bush-cricket |
| <i>Nysson trimaculatus</i> | |
| <i>Osmunda regalis</i> | Royal fern |
| <i>Tetheella fluctuosa</i> | Satin Lutestring |
| Invasive Alien Species Inventory | |
| <i>Cotoneaster horizontalis</i> | Wall cotoneaster |
| <i>Cotoneaster simonsii</i> | Himalayan cotoneaster |
| <i>Crocsmia aurea</i> | Montbretia |
| <i>Fallopia japonica</i> | Japanese knotweed |
| <i>Fallopia sachalinensis</i> | Giant Knotweed |
| <i>Impatiens glandulifera</i> | Indian balsam |
| <i>Prunus laurocerasus</i> | Cherry laurel |
| <i>Rhododendron</i> sp. | Rhododendron |
| Field Survey: Habitat Descriptions (See Figure) | |
| <p>Poor semi-improved grassland – variable in structure and species composition. Grasses include Yorkshire fog <i>Holcus lanatus</i>, common bent <i>Agrostis capillaris</i>, sweet vernal-grass <i>Anthoxanthum odoratum</i> and false oat-grass <i>Arrhenatherum elatius</i>. Rushes, including soft and compact <i>Juncus effusus</i> and <i>conglomeratus</i> are frequent and locally abundant and oval sedge <i>Carex ovalis</i> is occasional but locally frequent along paths Not species rich, though the southern (wetter) part has frequent to abundant forbs, including common knapweed <i>Centaurea nigra</i>, greater bird's foot trefoil <i>Lotus pedunculatus</i>, meadow vetchling <i>Lathyrus pratensis</i>, ox-eye daisy <i>Leucanthemum vulgare</i>, fleabane <i>Pulicaria dysenterica</i>, marsh thistle <i>Cirsium palustre</i>, lesser stitchwort <i>Stellaria graminea</i>, perforate St John's wort <i>Hypericum perforatum</i>. A single plant of heather <i>Calluna vulgaris</i> is present in the centre of the Site. The northern part is, on the whole, coarser and locally dominated by false oat-grass, with lower forb content.</p> <p>Bracken – some dense stands of bracken on the edge of the Site, for example in the south west.</p> <p>Scattered and dense scrub and scattered broadleaved trees – scattered throughout, but especially at the edges. Largely young oaks but also birch and grey and goat willows <i>Salix cinerea</i> and <i>caprea</i>. Includes maturing birch in south eastern part.</p> <p>Broadleaved semi-natural woodland – two small areas in the north of the Site. Canopy includes mature oak, birch, pine and sycamore. Shrub layer holly and rowan and field layer dominated by bracken and bramble. Also narrow woodland fringe to field of similar nature.</p> <p>Standing water/pond – small woodland-edge pond in the north western part of Site. Water turbid (muddy). Northern part heavily shaded by woodland. Approx. 40-50% vegetated, including yellow iris <i>Iris pseudoacorus</i>, floating sweet-grass <i>Glyceria fluitans</i>, jointed and soft <i>Juncus articulatus</i> and <i>effusus</i> and lesser spearwort <i>Ranunculus flammula</i>.</p> | |
| Field Survey: Notable and Protected Species | |
| <p>Yellowhammer (BOCC red list) recorded in two parts of Site.</p> <p>Tree pipit (BOCC red list) recorded immediately adjacent to site to south east.</p> | |

Field Survey: Invasive Non-native Species

No invasive non-native species recorded during the survey.

Assessment of Potential for Protected and Notable Species

Invertebrates – floral resources and the mosaic habitats, including the Site's association with adjacent heathland and woodland, may support notable invertebrate species.

Great crested newts – potential breeding in pond and rest of Site represents suitable terrestrial habitat

Reptiles – suitable habitat throughout most of Site excluding woodland.

Breeding birds – especially among woodland, woodland edge and scrub. Ground nesting open ground species, such as skylark, not recorded during survey.

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

Dormice – some potential in hedges.

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

Recommendations for Further Survey (and optimal survey timings)

Botanical – (May – September) of whole site.

Invertebrates – (April – September: species specific) surveys of the whole site to determine the quality and extent of the invertebrate assemblage.

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

Reptiles – (May – June, September – October) of whole site excluding woodland.

Breeding birds – (April – June) of whole site and immediately adjacent areas, and to include surveys targeted at species associated with mosaics of heathland and woodland/plantation, such as nightjar, tree pipit, woodlark etc.

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 to encompass the whole site and immediately adjacent areas.

Dormice – (April – November) in woodland and woody vegetation on site boundaries.

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

INDICATIVE ECOLOGICAL APPRAISAL

Moderate to High value – the small areas of well-structured woodland and the pond, are of relatively high value. The grassland has some diversity and forms a mosaic habitat with the scrub which is of at least moderate value. The Site supports habitats and features with potential to support a range of notable species. The Site is also adjacent to, or lies within, and forms a part of a larger area of semi-natural habitats in Hargate Forest.

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 extant 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 strips of retained and positively managed habitat around the edges of the Site
- If great crested newts are found to be present, 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 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.
- 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 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, retention of appropriate habitat, including woodland and scrub, and links to adjoining habitat.
- 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:

The Site largely comprises an area of grassland set within a wooded landscape, with small areas of adjoining heath. Opportunities for ecological enhancement and the delivery of green infrastructure opportunities would predominantly be met through the implementation of the recommendations for mitigation. Additionally, however, careful consideration should be given to the allocation of part of the Site, particularly adjacent to retained habitat(s), to provide connectivity and linkages, for habitat creation, to include for example:

- Positively and appropriately managing retained habitats and features, including hedges and mature trees.
- Strengthening boundary vegetation, for example by planting appropriate native species to form hedges.
- Habitat creation, ideally located adjacent to retained or adjoining areas of semi-natural habitat, for example a field corner, or to form habitat corridors or links. To include for example:
 - Wildlife pond(s), included for example as part of a SuDS scheme;
 - Species-rich grassland and associated features for supporting a variety of terrestrial invertebrates;
 - Scrub and trees; and
 - Creation of dead wood habitats and other habitat piles.
- Erection of bat boxes suitable for a range of bat species, on retained trees or incorporated into buildings where they will remain unlit;
- Erection of bird boxes suitable for a range of bird species on retained trees or incorporated into buildings;
- Implementation of good management practices for retained habitats, notably hedgerow and tree management.



| ECOLOGICAL ASSESSMENT | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---------------------------------|----------------|---------------------------|--------------------|---------------------|-------|------------------------------|-------------|------------------------------|---------------|----------------------|---------------|--------------------------|--------|--------------------------|---------------|---------------------------------|----------------|----------------------|------------------|--------------------------|---------------------------|------------------------|----------|--------------------------|---------|
| Settlement/Area: | Edge of Tunbridge Wells | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Site Address: | Land off Broadwater, Tunbridge Wells | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Site Reference Number: | 504/1610 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Site Summary Description | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A 1.08ha. area of broadleaved semi-natural woodland of relatively recent (post-1940s) development. | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ECOLOGICAL BASELINE | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Green Infrastructure Context (see Figure 16.1) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>The Site is located on the southern urban fringe of Tunbridge Wells which gives way southward to a characteristic High Weald landscape of small to medium sized fields, including both grassland and arable, set within a relatively extensive and intact hedgerow network which includes frequent trees. Woodland, including Ancient Woodland, is relatively plentiful and includes both large and small parcels. The Site, comprising entirely of woodland is bordered by residential development on its northern, eastern and western boundaries. The woodland extends further southwards.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Desk Study : Designated Sites within 1km (See Figure 16.2) | 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"> Deciduous Woodland BAP Priority Habitat Ancient & semi-natural woodland – Spratsbrook Farm Shaw Ancient & semi-natural woodland – Whitehill Wood Lowland Heath BAP priority habitat (un-named) Lowland Heath BAP priority habitat (un-named) | <ul style="list-style-type: none"> Within Site 7300m South West 920m South 150m South West 150m South East | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Desk Study: Protected and Notable Species within 1km | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Protected Species Inventory</p> <table> <tr> <td><i>Muscardinus avellanarius</i></td> <td>Hazel Dormouse</td> </tr> <tr> <td><i>Triturus cristatus</i></td> <td>Great Crested Newt</td> </tr> <tr> <td><i>Vipera berus</i></td> <td>Adder</td> </tr> </table> <p>Sussex BAP Species</p> <table> <tr> <td><i>Coenonympha pamphilus</i></td> <td>Small heath</td> </tr> <tr> <td><i>Ecliptopera silaceata</i></td> <td>Small Phoenix</td> </tr> <tr> <td><i>Erynnis tages</i></td> <td>Dingy skipper</td> </tr> <tr> <td><i>Hoplodrina blanda</i></td> <td>Rustic</td> </tr> <tr> <td><i>Limenitis camilla</i></td> <td>White Admiral</td> </tr> <tr> <td><i>Muscardinus avellanarius</i></td> <td>Hazel Dormouse</td> </tr> <tr> <td><i>Pyrgus malvae</i></td> <td>Grizzled Skipper</td> </tr> </table> <p>Notable Bird Inventory</p> <table> <tr> <td><i>Dendrocopos minor</i></td> <td>Lesser Spotted Woodpecker</td> </tr> <tr> <td><i>Lullula arborea</i></td> <td>Woodlark</td> </tr> <tr> <td><i>Vanellus vanellus</i></td> <td>Lapwing</td> </tr> </table> | | <i>Muscardinus avellanarius</i> | Hazel Dormouse | <i>Triturus cristatus</i> | Great Crested Newt | <i>Vipera berus</i> | Adder | <i>Coenonympha pamphilus</i> | Small heath | <i>Ecliptopera silaceata</i> | Small Phoenix | <i>Erynnis tages</i> | Dingy skipper | <i>Hoplodrina blanda</i> | Rustic | <i>Limenitis camilla</i> | White Admiral | <i>Muscardinus avellanarius</i> | Hazel Dormouse | <i>Pyrgus malvae</i> | Grizzled Skipper | <i>Dendrocopos minor</i> | Lesser Spotted Woodpecker | <i>Lullula arborea</i> | Woodlark | <i>Vanellus vanellus</i> | Lapwing |
| <i>Muscardinus avellanarius</i> | Hazel Dormouse | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <i>Triturus cristatus</i> | Great Crested Newt | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <i>Vipera berus</i> | Adder | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <i>Coenonympha pamphilus</i> | Small heath | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <i>Ecliptopera silaceata</i> | Small Phoenix | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <i>Erynnis tages</i> | Dingy skipper | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <i>Hoplodrina blanda</i> | Rustic | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <i>Limenitis camilla</i> | White Admiral | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <i>Muscardinus avellanarius</i> | Hazel Dormouse | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <i>Pyrgus malvae</i> | Grizzled Skipper | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <i>Dendrocopos minor</i> | Lesser Spotted Woodpecker | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <i>Lullula arborea</i> | Woodlark | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <i>Vanellus vanellus</i> | Lapwing | | | | | | | | | | | | | | | | | | | | | | | | | | |

Sussex Rare Species Inventory

| | |
|-------------------------------|-----------------------|
| <i>Apatura iris</i> | Purple Emperor |
| <i>Bromus secalinus</i> | Rye Brome |
| <i>Evergestis pallidata</i> | Chequered Pearl |
| <i>Metriopectera roeselii</i> | Roesel's Bush-cricket |
| <i>Nysson trimaculatus</i> | |
| <i>Osmunda regalis</i> | Royal fern |
| <i>Tetheella fluctuosa</i> | Satin Lutestring |

Invasive Alien Species Inventory

| | |
|---------------------------------|-----------------------|
| <i>Cotoneaster horizontalis</i> | Wall cotoneaster |
| <i>Cotoneaster simonsii</i> | Himalayan cotoneaster |
| <i>Crocsmia aurea</i> | Montbretia |
| <i>Fallopia japonica</i> | Japanese knotweed |
| <i>Fallopia sachalinensis</i> | Giant Knotweed |
| <i>Impatiens glandulifera</i> | Indian balsam |
| <i>Prunus laurocerasus</i> | Cherry laurel |
| <i>Rhododendron</i> sp. | Rhododendron |

Field Survey: Habitat Descriptions (See Figure 16/504)

Broadleaved semi-natural woodland – of relatively recent origin over often uneven ground (banks etc). Canopy of birch and oak but also sycamore, beech, goat willow *Salix caprea* and rarely wych elm *Ulmus glabra*, Scots pine and sweet chestnut. The shrub layer is patchy, and absent in parts, and comprises locally abundant holly as well as occasional rowan and goat willow. The invasive non-native *Rhododendron* and cherry laurel, as well as Portugal laurel *Prunus lusitanica* are present in small quantities. The field layer is species poor, dominated by ivy, nettle and bramble with locally abundant bracken, but broad buckler fern *Dryopteris dilatata*, wood avens *Geum urbanum* and foxglove *Digitalis purpurea* are occasional. Considering the age of woodland there are moderate quantities of fallen and standing dead wood.

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 are present within the woodland in small quantities

Assessment of Potential for Protected and Notable Species

Great crested newts – There are no ponds within the Site. However, there is a pond in the north western corner of the field to the south, less than 100m from the Site and the Site represents suitable terrestrial habitat for great crested newts.

Breeding birds – throughout.

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

Dormice – High potential throughout the Site.

Badger – Potential for setts within the woodland, but with or without setts badgers may also use any or all of the Site for foraging. However, neither setts nor foraging signs are recorded during the survey.

Recommendations for Further Survey (and optimal survey timings)

Great crested newts – (March – June) of the pond in the north western corner of the field to the south.

Breeding birds – (April – June) throughout.

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.

Badger - (Year round but Spring / Autumn optimal) throughout.

INDICATIVE ECOLOGICAL APPRAISAL

Moderate value – although the woodland is of relatively recent origin and not species rich it has some structural diversity, is adjacent or near to other larger areas of woodland, plantation and other semi-natural habitats (Hargate Forest) and has the potential to support several 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 as much of the woodland as possible, especially the southern part adjoining areas of woodland/plantation (Hargate Forest).
- 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 the pond appropriate measures will need to be put in place to prevent harm to them, for example herp fencing any development site, and possible 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 should not be carried out during the bird breeding season, which is March-August inclusive. If this is not possible then the relevant vegetation 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

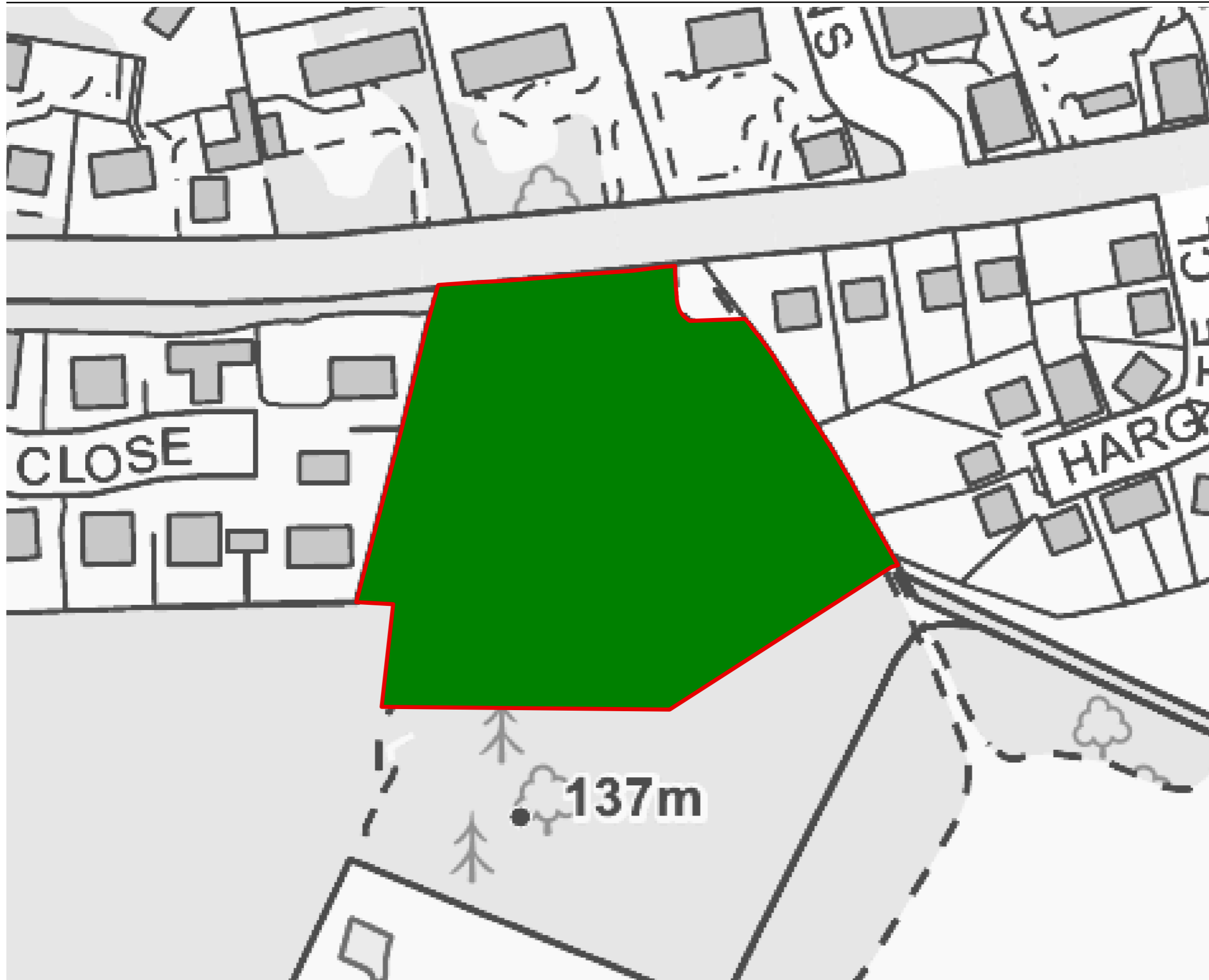
that may potentially form important commuting corridors (e.g. hedgerows) or adjacent woodlands that may support bat roosts should make use of backboards and/or internal louvres to ensure light is directed into the Site and light spill into the adjacent areas of retained habitat is minimised.

- If dormice are found to be present, retention of appropriate habitat, including woodland and scrub, and links to adjoining habitat.
- If dormice are found to be present the retention and appropriate buffering adequate 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 hedges and mature trees.
- Strengthen boundary vegetation, for example by planting appropriate native species to form hedges.
- Habitat creation, ideally located adjacent to retained or adjoining areas of semi-natural habitat, for example a field corner, or to form habitat corridors or links. To include for example:
 - Wildlife pond(s), included for example as part of a SuDS scheme;
 - Species-rich grassland and associated features for supporting a variety of terrestrial invertebrates;
 - Scrub and trees; and
 - Creation of dead wood habitats and other habitat piles.
- Erection of bat boxes suitable for a range of bat species, on retained trees or incorporated into buildings where they will remain unlit;
- Erection of bird boxes suitable for a range of bird species on retained trees or incorporated into buildings;
- Implementation of good management practices for retained habitats, notably hedgerow and tree management.



KEY
 Potential Development Site
 Broadleaved Semi-natural Woodland

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| ECOLOGICAL ASSESSMENT | |
|---|---|
| Settlement/Area: | Edge of Tunbridge Wells |
| Site Address: | Land to the North-East of Benhall Mill Road, Frant |
| Site Reference Number: | 527/1610 |
| Site Summary Description | |
| <p>Most of the 0.63ha. Site comprises species poor unmanaged grassland and tall ruderal but it also includes a very small area of broadleaved semi-natural woodland beside Benhall Mill Road, mature trees and scrub beside the right of way on the western boundary. A strip from the Site entrance in the west to the eastern corner has been recently cleared of vegetation and a sparse and patchy cover of grasses and ruderals is developing.</p> | |
| ECOLOGICAL BASELINE | |
| Green Infrastructure Context (see Figure 16.1) | |
| <p>The Site is located on the southern urban fringe of Tunbridge Wells which gives way southward to a characteristic High Weald landscape of small to medium sized fields, including both grassland and arable, set within a relatively extensive and intact hedgerow network which includes frequent trees. Woodland, including Ancient Woodland, is relatively plentiful and includes both large and small parcels. The Site is bordered to the north by the Hawkenbury Farm Meadows LWS, a mosaic of diversely structured grassland with scattered and dense scrub, scattered (mostly young) trees and recently developed woodland. A residential property with large grounds lies to the south and woodland plantation to the east.</p> | |
| Desk Study : Designated Sites within 1km (See Figure 16.2) | Distance from Site |
| <ul style="list-style-type: none"> The Site lies immediately adjacent to the Hawkenbury Farm Meadows LWS. The Citation summary describes the Site as follows: <i>“Traditionally farmed unploughed meadow with patches of botanical interest and adjacent intact mature hedgerows”</i>. | <ul style="list-style-type: none"> Immediately adjacent to the Site. |
| Desk Study: BAP Priority Habitats within 1km | Distance from Site |
| <ul style="list-style-type: none"> Ancient & semi-natural woodland – Benhall Wood Ancient & semi-natural woodland – High Wood Ancient & semi-natural woodland – Sussex Shaw | <ul style="list-style-type: none"> 750m East 1000m North East 620m North |
| Desk Study: Protected and Notable Species within 1km | |
| <p>Protected Species <i>Pipistrellus pipistrellus</i> Common pipistrelle bat <i>Pipistrellus pygmaeus</i> Soprano pipistrelle bat</p> <p>Sussex Rare Species Inventory <i>Adrena tibialis</i> <i>Andrena trimmerana</i> Trimer’s mining bee <i>Osmia leaiana</i></p> | |

Notable Bird Inventory

| | |
|------------------------|---------|
| <i>Hirundo rustica</i> | Swallow |
|------------------------|---------|

Invasive Alien Species Inventory

| | |
|---------------------------------|-----------------------|
| <i>Campylopus introflexus</i> | Heath Star Moss |
| <i>Cotoneaster horizontalis</i> | Wall cotoneaster |
| <i>Cotoneaster simonsii</i> | Himalayan cotoneaster |
| <i>Crocsmia aurea</i> | Montbretia |
| <i>Fallopia japonica</i> | Japanese knotweed |
| <i>Fallopia sachalinensis</i> | Giant Knotweed |
| <i>Impatiens glandulifera</i> | Indian balsam |
| <i>Petasites fragrans</i> | Winter Heliotrope |
| <i>Prunus laurocerasus</i> | Cherry laurel |

Field Survey: Habitat Descriptions (See Figure 16/527)

Broadleaved semi-natural woodland - a small area beside Benhall Mill Road with canopy of mostly oak, birch and willow.

Scattered broadleaved trees – alongside the western boundary of the Site, adjacent to the PRow (incl. mature oaks) and along the southern boundary (incl. field maple).

Scrub – among trees along the Prow and southern boundaries, including stands of bramble.

Poor semi-improved grassland – generally species poor with variable structure from tall to short. Most dominated by false oat grass *Arrhenatherum elatius* but also Yorkshire fog *Holcus lanatus*, common bent *Agrostis capillaris*. Broadleaved dock *Rumex obtusifolius* frequent. Small area has common knapweed *Centaurea nigra* and meadow vetchling *Lathyrus pratensis*.

Tall ruderal – most of the northern part of the Site comprises large stands of nettle with dock, thistles and coarse grasses etc. Bracken is also locally abundant among scrub and trees beside the PRow.

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 Protected and Notable Species

Great crested newts – There are no ponds within the Site, However, there is a pond at Little Mount Farm, approximately 400m from the southern edge of the Site. All habitats within the Site represent suitable terrestrial habitat for great crested newts. However, given the distance from the pond and the widespread availability of suitable habitat closer to it, it is considered the probability of great crested newts being present within the Site is low.

Reptiles – high potential throughout the Site but especially among tall grassland and ruderal.

Breeding birds – in woodland, trees and scrub.

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

Dormice – some potential in the woodland and in woody vegetation on boundaries

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

Recommendations for Further Survey (and optimal survey timings)

Great crested newts – (March – June) of the pond at Little Mount Farm.

Reptiles – (May – June, September – October) more or less 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 as well as activity surveys.

Dormice – (April – November) in woodland and plantation.

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

INDICATIVE ECOLOGICAL APPRAISAL

Low to Moderate value – the most notable feature is mature trees on the PRoW boundary. The Site has some potential to support notable species, including 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 woody vegetation, especially mature trees, on boundaries
- As far as possible and appropriate retaining and buffering habitats and features supporting notable/protected species, based on the results of more detailed surveys.

Outline Mitigation

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

- Implementation of a Construction and Environmental Management Plan (CEMP) to manage site-specific issues relating to the potential impacts of construction on ecological features of interest.
- 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 woody vegetation, especially mature trees, on boundaries.
- If great crested newts are found in the pond at Little Mount Farm 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.
- 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 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, retention of appropriate habitat and links to adjoining habitat.
- 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 hedges and mature trees.
- Strengthen boundary vegetation, for example by planting appropriate native species to form hedges, such as along the boundary with the PROW.
- Habitat creation, ideally located adjacent to retained or adjoining areas of semi-natural habitat, for example the Site's western eastern and southern boundaries, 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;
- Implementation of good management practices for retained habitats, notably hedgerow and tree management.



| ECOLOGICAL ASSESSMENT | |
|---|---|
| Settlement/Area: | Edge of Tunbridge Wells |
| Site Address: | Land between Forest Road and Benhall Mill Road, Frant |
| Site Reference Number: | 528/1610 |
| Site Summary Description | |
| The 1.11 ha. Site comprises broadleaved semi-natural woodland bordering the track / right of way on the western side of the Site and tall ruderal vegetation between the woodland and the railway. | |
| ECOLOGICAL BASELINE | |
| Green Infrastructure Context (see Figure 16.1) | |
| The Site is located on the southern urban fringe of Tunbridge Wells which gives way southward to a characteristic High Weald landscape of small to medium sized fields, including both grassland and arable, set within a relatively extensive and intact hedgerow network which includes frequent trees. Woodland, including Ancient Woodland, is relatively plentiful and includes both large and small parcels. The Site is bordered by residential development to the north and by a mix of woodland and grassland to the east, west and south. Approximately 90% of the Site comprises the Hawkenbury Farm Meadows LWS, a mosaic of diversely structured grassland with scattered and dense scrub, scattered (mostly young) trees and recently developed woodland. | |
| Desk Study : Designated Sites within 1km (See Figure 16.2) | Distance from Site |
| <ul style="list-style-type: none"> 90% of the Site comprises the Hawkenbury Farm Meadows LWS. The Citation summary describes the Site as follows: <i>“Traditionally farmed unploughed meadow with patches of botanical interest and adjacent intact mature hedgerows”</i>. | <ul style="list-style-type: none"> Within Site |
| Desk Study: BAP Priority Habitats within 1km | Distance from Site |
| <ul style="list-style-type: none"> Ancient & semi-natural woodland – Benhall Wood Ancient & semi-natural woodland – High Wood Ancient & semi-natural woodland – Sussex Shaw | <ul style="list-style-type: none"> 750m East 950m East North East 450m North |
| Desk Study: Protected and Notable Species within 1km | |
| <p>Protected Species</p> <p><i>Pipistrellus pipistrellus</i> Common pipistrelle</p> <p><i>Pipistrellus pygmaeus</i> Soprano pipistrelle</p> <p>Sussex Rare Species Inventory</p> <p><i>Adrena tibialis</i></p> <p><i>Andrena trimmerana</i> Trimer’s mining bee</p> <p><i>Osmia leaiana</i></p> <p>Notable Bird Inventory</p> <p><i>Hirundo rustica</i> Swallow</p> <p>Invasive Alien Species Inventory</p> <p><i>Campylopus introflexus</i> Heath Star Moss</p> <p><i>Cotoneaster horizontalis</i> Wall cotoneaster</p> | |

| | |
|---|-----------------------------|
| <i>Cotoneaster simonsii</i> | Himalayan cotoneaster |
| <i>Crocosmia aurea</i> | Montbretia |
| <i>Fallopia japonica</i> | Japanese knotweed |
| <i>Fallopia sachalinensis</i> | Giant Knotweed |
| <i>Impatiens glandulifera</i> | Indian balsam |
| <i>Lamium galeobdolon subsp.</i> | Variegated yellow archangel |
| <i>Petasites fragrans</i> | Winter Heliotrope |
| <i>Prunus laurocerasus</i> | Cherry laurel |
| <i>Rhododendron</i> sp. | Rhododendron |
| Field Survey: Habitat Descriptions (See Figure 16/528) | |
| <p>Broadleaved semi-natural woodland – a strip beside the track / right of way which forms the Site’s western boundary. It comprises largely of birch and oak (including mature trees), with some sycamore and willow over bracken and bramble. Patches of bluebell <i>Hyacinthoides non-scripta</i> are present, particularly toward the PRow.</p> <p>Scattered broadleaved trees and scrub – is scattered among the tall ruderal</p> <p>Tall ruderal – between the woodland and the railway. It comprises largely of nettle and thistles, but there are some small grassy areas in the southern part of the Site.</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 Protected and Notable Species | |
| <p>Reptiles – some among tall ruderal vegetation.</p> <p>Breeding birds – in all woody vegetation and stands of bramble.</p> <p>Bats – Trees and mature trees in particular, with features such as cracks and cavities have potential to be used as roosts. Given the habitats and features present activity, including foraging and commuting, is likely throughout, but especially in and around woodland and trees, scrub and hedges.</p> <p>Dormice – some potential along hedgerow corridor, including woodland as well as dense continuous scrub.</p> <p>Badgers – Potential for setts within the woodland, scrub and hedgerows, but with or without setts badgers may also use any or all of the Site for foraging. However, neither setts nor foraging signs are recorded during the survey.</p> | |
| Recommendations for Further Survey (and optimal survey timings) | |
| <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.</p> <p>Dormice – (April – November) in the woodland.</p> <p>Badgers – (Year round but Spring / Autumn optimal) of whole site.</p> | |

INDICATIVE ECOLOGICAL APPRAISAL

Low to Moderate value – the woodland beside the PRoW is of moderate value, the tall ruderal of low value. The Site has some potential to support notable species, including 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:

- Retention of as much of the woodland as possible, especially that towards the PRoW.
- As far as possible and appropriate retain and buffer 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 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.
- 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 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, retention of appropriate adequate woodland habitat.
- 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 hedges and mature trees.
- Strengthen boundary vegetation, for example by planting appropriate native species to form hedges, such as along the woodland boundaries.
- Habitat creation, ideally located adjacent to retained or adjoining areas of semi-natural habitat, for example along the Site's southern and eastern boundaries, 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;
- Implementation of good management practices for retained habitats, notably hedgerow and tree management.



- KEY**
- Potential Development Site
 - Broadleaved Tree
 - Broadleaved Semi-natural Woodland
 - Tall Ruderal

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| ECOLOGICAL ASSESSMENT | | | | | | | | | | | | | | | | | |
|--|--|----------------------------------|------------------------|------------------------------|-------------------------|------------------------|--|---------------------------|---------------------|------------------------------|---------------------|----------------------|--|---------------------|-------|------------------------|---------|
| Settlement/Area: | Edge of Tunbridge Wells | | | | | | | | | | | | | | | | |
| Site Address: | Land at Bayham Road, Tunbridge Wells | | | | | | | | | | | | | | | | |
| Site Reference Number: | 651/1610 | | | | | | | | | | | | | | | | |
| Site Summary Description | | | | | | | | | | | | | | | | | |
| A 1.14ha. semi-improved grassland field enclosed within hedges. | | | | | | | | | | | | | | | | | |
| ECOLOGICAL BASELINE | | | | | | | | | | | | | | | | | |
| Green Infrastructure Context (see Figure 16.1) | | | | | | | | | | | | | | | | | |
| <p>The Site is located on the southern urban fringe of Tunbridge Wells which gives way southward to a characteristic 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. Bayham Road forms the Site's northern boundary with hedge lined pasture and occasional mature trees lie to its east, west and south.</p> | | | | | | | | | | | | | | | | | |
| Desk Study : Designated Sites within 1km (See Figure 16.1) | Distance from Site | | | | | | | | | | | | | | | | |
| <ul style="list-style-type: none"> The Site is less than 1km from the Hawkenbury Farm Meadows LWS. The Citation summary describes the Site as follows: "<i>Traditionally farmed unploughed meadow with patches of botanical interest and adjacent intact mature hedgerows</i>". | <ul style="list-style-type: none"> Approximately 600m to the north east of the Site. | | | | | | | | | | | | | | | | |
| Desk Study: BAP Priority Habitats within 1km | Distance from Site | | | | | | | | | | | | | | | | |
| <ul style="list-style-type: none"> Ancient & semi-natural woodland – Tangier Farm Shaw Ancient & semi-natural woodland – Chase Wood Ancient & semi-natural woodland – Stubbygrove Wood Ancient & semi-natural woodland – Brook Farm Shaw | <ul style="list-style-type: none"> 350m South 800m South 1000m South East 1000m South East | | | | | | | | | | | | | | | | |
| Desk Study: Protected and Notable Species within 1km | | | | | | | | | | | | | | | | | |
| <p>Protected Species</p> <table> <tr> <td><i>Pipistrellus pipistrellus</i></td> <td>Common pipistrelle bat</td> </tr> <tr> <td><i>Pipistrellus pygmaeus</i></td> <td>Soprano pipistrelle bat</td> </tr> </table> <p>Sussex Rare Species Inventory</p> <table> <tr> <td><i>Adrena tibialis</i></td> <td></td> </tr> <tr> <td><i>Andrena trimmerana</i></td> <td>Trimer's mining bee</td> </tr> <tr> <td><i>Orthotrichum striatum</i></td> <td>Shaw's Bristle-moss</td> </tr> <tr> <td><i>Osmia leaiana</i></td> <td></td> </tr> </table> <p>Notable Bird Inventory</p> <table> <tr> <td><i>Corvus corax</i></td> <td>Raven</td> </tr> <tr> <td><i>Hirundo rustica</i></td> <td>Swallow</td> </tr> </table> | | <i>Pipistrellus pipistrellus</i> | Common pipistrelle bat | <i>Pipistrellus pygmaeus</i> | Soprano pipistrelle bat | <i>Adrena tibialis</i> | | <i>Andrena trimmerana</i> | Trimer's mining bee | <i>Orthotrichum striatum</i> | Shaw's Bristle-moss | <i>Osmia leaiana</i> | | <i>Corvus corax</i> | Raven | <i>Hirundo rustica</i> | Swallow |
| <i>Pipistrellus pipistrellus</i> | Common pipistrelle bat | | | | | | | | | | | | | | | | |
| <i>Pipistrellus pygmaeus</i> | Soprano pipistrelle bat | | | | | | | | | | | | | | | | |
| <i>Adrena tibialis</i> | | | | | | | | | | | | | | | | | |
| <i>Andrena trimmerana</i> | Trimer's mining bee | | | | | | | | | | | | | | | | |
| <i>Orthotrichum striatum</i> | Shaw's Bristle-moss | | | | | | | | | | | | | | | | |
| <i>Osmia leaiana</i> | | | | | | | | | | | | | | | | | |
| <i>Corvus corax</i> | Raven | | | | | | | | | | | | | | | | |
| <i>Hirundo rustica</i> | Swallow | | | | | | | | | | | | | | | | |

Invasive Alien Species Inventory

| | |
|--------------------------------------|------------------------------|
| <i>Campylopus introflexus</i> | Heath Star Moss |
| <i>Cotoneaster horizontalis</i> | Wall cotoneaster |
| <i>Cotoneaster simonsii</i> | Himalayan cotoneaster |
| <i>Crocsmia aurea</i> | Montbretia |
| <i>Fallopia japonica</i> | Japanese knotweed |
| <i>Fallopia sachalinensis</i> | Giant Knotweed |
| <i>Impatiens glandulifera</i> | Indian balsam |
| <i>Lamiastrum galeobdolon subsp.</i> | Variiegated yellow archangel |
| <i>Petasites fragrans</i> | Winter Heliotrope |
| <i>Prunus laurocerasus</i> | Cherry laurel |

Field Survey: Habitat Descriptions (See Figure 16/651)

Poor semi-improved grassland – rather species poor with Yorkshire fog *Holcus lanatus*, common bent *Agrostis capillaris*, sweet vernal-grass *Anthoxanthum odoratum*, false oat-grass *Arrhenatherum elatius* and perennial rye-grass *Lolium perenne* but also including a number of species characteristic of less improved grasslands, such as common knapweed *Centaurea nigra*, bird's foot trefoil *Lotus corniculatus*, greater bird's foot trefoil *Lotus pedunculatus*, red clover *Trifolium pratense*, meadow vetchling *Lathyrus pratensis* and ox-eye daisy *Leucanthemum vulgare*. Uncut at the time of survey but likely to be cut for hay or silage.

Hedges – mostly species poor and dominated by hawthorn (and birch on western part of southern boundary), but including a richer, though rather gappy double hedge (either side of redundant track) with mature trees (especially oak) on the western boundary.

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 Protected and Notable Species

Reptiles – some potential along boundary between grassland and hedges especially.

Breeding birds – in all hedges. Some potential for ground nesting species, such as skylark among grassland, though relatively small field size and grassland structure reduces its suitability.

Bats – Trees and mature trees along the western boundary in particular, with features such as cracks and cavities have potential to be used as roosts. Foraging and commuting activity may also occur along all the Site's boundaries.

Dormice – Limited potential in hedges.

Badgers – Limited potential for setts within the boundary hedgerows, but with or without setts badgers may also use any or the entire site for foraging. However, neither setts nor foraging signs are recorded during the survey.

Recommendations for Further Survey (and optimal survey timings)

Reptiles – (May – June, September – October) along boundaries in particular.

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 hedges.

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

INDICATIVE ECOLOGICAL APPRAISAL

Low to Moderate value – grassland retains/supports some diversity and hedges are more or less intact and on western boundary contain mature trees. The habitats and features present have some potential to support notable/protected species.

Impact Avoidance

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

- Retaining and buffering hedges, including 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 and positively manage the hedges.
- 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 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 the 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.

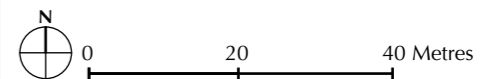
Potential Enhancement Opportunities

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 hedges and mature trees.
- Strengthen boundary vegetation, for example by planting appropriate native species to form hedges along all the Site's boundaries.
- Habitat creation, ideally located adjacent to retained or adjoining areas of semi-natural habitat, for example the Site's western and southern boundaries, 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;
- Implementation of good management practices for retained habitats, notably hedgerow and tree management.



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| ECOLOGICAL ASSESSMENT | |
|---|---|
| Settlement/Area: | Tunbridge Wells |
| Site Address: | Land at Ramslye Farm, Eridge Road, Tunbridge Wells |
| Site Reference Number: | 729/1610 |
| Site Summary Description | |
| <p>A large 39.69ha site divided in two land parcels consisting largely of arable but also including, on the larger of the two parcels to the south, Ruffet Wood and Sprats Brook Ancient Woodlands, other small areas of woodland, hedges, mature trees, poor semi-improved grassland, a stream and ponds.</p> | |
| ECOLOGICAL BASELINE | |
| Green Infrastructure Context (see Figure 16.1) | |
| <p>The Site is located within a characteristic 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. Gill woodland is also present along some of the stream corridors. The Site is located on the south western edge of Tunbridge Wells. In addition to the Ancient Woodland within the Site, Ramslye Wood Ancient Woodland, which includes sandstone exposures and a stream, lies between the two parcels of land that make up the Site. The northern part of the Site adjoins Ramslye Wood along its entire southern/south-western boundary and the southern part of the Site adjoins it on its western boundary. Ramslye Wood extends westwards and is contiguous with the woodland within which High Rocks sandstone exposure and SSSI (see below) is set. Also between the two parts of the Site is an unmanaged grassland field with scattered scrub and stands of bracken. To the north, including the northern parcel of land forming the Site, is arable then, in the west, further Ancient Woodland (Friezland and Three Acre Woods), and to the east, residential development forming the Ramslye area of Tunbridge Wells. To the south west, is arable then Broadwater Forest, including The Warren & Broadwater Forest LWS (see below). The A26 forms the Site's eastern border and grassland, plantation and broadleaved woodland lie beyond it to the east.</p> | |
| Desk Study : Designated Sites within 1km (See Figure 16.2) | Distance from Site |
| <ul style="list-style-type: none"> High Rocks SSSI is a geological site designated because it is 'a key geomorphological site for sandstone weathering features developed on the highest cliffs in the Weald'. Approximately 30% of The Warren & Broadwater Forest LWS is less than 1km from the Site. The Citation summary describes the Site as follows: "Acidic Valley Mire rich in bryophytes within historic woodland with heathland supporting nightjar, tree pipit and hobby". | <ul style="list-style-type: none"> 200m West 330m SW |
| Desk Study: BAP Priority Habitats within 1km | Distance from Site |
| <ul style="list-style-type: none"> Ancient & semi-natural woodland – Ruffet Wood Ancient & semi-natural woodland – Spratsbrook Farm Shaw Ancient & semi-natural woodland – Ramslye Wood Ancient & semi-natural woodland – Friezland Wood Ancient & semi-natural woodland – Three Acre Wood Ancient & semi-natural woodland | <ul style="list-style-type: none"> Within site Within site Adjacent to S and W 90m North 150m North, |

- Ancient & semi-natural woodland – Eridge Park
- Lowland Heath BAP priority habitat (5 areas un-named, but all within The Warren & Broadwater Forest LWS discussed above)
- Lowland Heath BAP priority habitat (un-named)
- Lowland Heath BAP priority habitat (un-named)

- several parcels beside & beyond River Grom from 380m NW
- 690m South
 - 450 – 1000m SW
 - 300m East
 - 580m East

Desk Study: Protected and Notable Species within 1km

Protected Species

| | |
|---------------------------------|--------------------|
| <i>Muscardinus avellanarius</i> | Hazel Dormouse |
| <i>Triturus cristatus</i> | Great Crested Newt |
| <i>Vipera berus</i> | Adder |
| <i>Zootoca vivipara</i> | Common lizard |

Sussex BAP Species

| | |
|-------------------------------|----------------------|
| <i>Coenonympha pamphilus</i> | Small heath |
| <i>Erynnis tages</i> | Dingy skipper |
| <i>Hydnellum spongiosipes</i> | Velvet Tooth |
| <i>Limenitis camilla</i> | White Admiral |
| <i>Pyrgus malvae</i> | Grizzled Skipper |
| <i>Ecliptopera silaceata</i> | Small Phoenix (moth) |
| <i>Hoplodrina blanda</i> | Rustic (moth) |

Sussex Rare Species Inventory

| | |
|------------------------------|-------------------------|
| <i>Andrena labiate</i> | Girdled Mining Bee |
| <i>Bromus secalinus</i> | Rye Brome |
| <i>Metrioptera roeselii</i> | Roesel's Bush-cricket |
| <i>Nysson trimaculatus</i> | |
| <i>Osmunda regalis</i> | Royal fern |
| <i>Apatura iris</i> | Purple Emperor |
| <i>Evergestis pallidata</i> | Chequered Pearl |
| <i>Sphaerophoria virgata</i> | |
| <i>Tetheella fluctuosa</i> | Satin Lutestring (moth) |

Notable Bird Inventory

| | |
|--------------------------|---------------------------|
| <i>Apus apus</i> | Swift |
| <i>Dendrocopos minor</i> | Lesser Spotted Woodpecker |
| <i>Loxia curvirostra</i> | Common Crossbill |
| <i>Lullula arborea</i> | Woodlark |
| <i>Vanellus vanellus</i> | Lapwing |

Invasive Alien Species Inventory

| | |
|---------------------------------|-----------------------|
| <i>Cotoneaster horizontalis</i> | Wall cotoneaster |
| <i>Cotoneaster simonsii</i> | Himalayan cotoneaster |
| <i>Fallopia japonica</i> | Japanese knotweed |
| <i>Fallopia sachalinensis</i> | Giant Knotweed |
| <i>Impatiens glandulifera</i> | Indian balsam |
| <i>Petasites fragrans</i> | Winter Heliotrope |
| <i>Rhododendron sp.</i> | Rhododendron |
| <i>C. x crocosmiiflora</i> | Montbretia |
| <i>Prunus laurocerasus</i> | Cherry laurel |

Field Survey: Habitat Descriptions (See Figure 16/729)

Arable – intensive in a number of the fields that make up this Site. The habitat is poorly developed and species poor weed flora included annual meadow grass *Poa annua* and black grass *Alopecurus myosuroides*.

Poor semi-improved grassland – an area of apparently unmanaged grassland is located within the south east section of the southern Site. The grassland is moderate to tall, with a substantial litter accumulation. It is species poor with abundant Yorkshire fog *Holcus lanatus* and common bent *Agrostis capillaris*, but also frequent false oat grass *Arrhenatherum elatius*. Cat's-tail *Phleum* sp., cocksfoot *Dactylis glomerata* and common couch *Elytrigia repens* also present. Forb content is variable but low, but included occasional meadow vetchling *Lathyrus pratensis*, grass vetchling *Lathyrus nissiola*, common and tufted vetch *Vicia sativa* and *cracca*, smooth tare *Vicia tetrasperma*, red clover *Trifolium pratense*, birds foot trefoil *Lotus corniculatus* and cinquefoil *Potentilla reptans*. Tall ruderals, including nettle, broadleaved dock *Rumex obtusifolius* and common ragwort *Senecio jacobaea* frequent and locally abundant. Elsewhere tall species-poor grassland is also present, particularly within the southern parcel of land forming the Site, as a mosaic with bracken and tall ruderal, along field boundaries, for example between arable fields, and alongside the track to Ramslye Farm.

Broadleaved semi-natural woodland – Ruffet Wood and Sprats Brook Ancient Woodlands lie within the Site on banks along the course of the Sprats Brook. They form a more or less continuous woodland corridor, separated only by a track which crosses the stream between the Woods, and are broadly similar in structure and species composition. The canopy is dominated by ash and oak, but includes frequent alder beside the stream. Other species include birch, yew, cherry and crack and goat willow. Hazel is the most abundant shrub species, but hawthorn and holly are frequent and rose, elder, hornbeam, and blackthorn are also present. The field layer appears at least moderately species rich (the survey was conducted in October) and included a number of Ancient Woodland Indicator Species, such as hard fern *Blechnum spicant*, wood and remote sedge *Carex sylvatica* and *remota*, bluebell *Hyacinthoides non-scripta*, dog's mercury *Mercurialis perennis*, opposite leaved golden saxifrage *Chrysosplenium oppositifolium*, red currant *Ribes rubrum* and wood speedwell *Veronica montana*. Other species included bramble, ivy, male and broad buckler ferns *Dryopteris felix-mas* and *dilatata*, harts tongue *Asplenium scolopendrium*, bracken, pendulous sedge *Carex pendula*, tufted hair grass *Deschampsia cespitosa*, wood avens *Geum urbanum*, enchanters nightshade *Circea lutetiana* and nettle. There is an area of woodland, including Ancient Woodland that extends to the north forming the south western boundary of the southern parcel of land, between arable fields. This lies along an incised seasonal/ephemeral stream. The southern part of this woodland is very similar in character to the adjoining woodlands but there is a stand of dense young birch in the northern part of this woodland.

Further woodland is present in a strip along the eastern boundary of the southern parcel of land, beside the A26. This had a canopy of especially oak, but also ash, birch and sweet chestnut. Hazel is the most abundant shrub, but hawthorn, holly, yew and rose also present. Young sycamore is locally frequent or abundant, especially in the south, and the invasive non-native cherry laurel and snowberry both locally abundant. The field layer appeared less rich than the Ancient Woodland, with abundant bramble, as well as much ivy and nettle, although pendulous sedge and male and broad buckler ferns are occasional.

A narrow woodland strip alongside a seasonal or ephemeral stream west of Ramslye Cottages has abundant crack willow and frequent alder.

A very small area of woodland set within arable in the north west of the Site (TN1) comprises largely of oaks, including mature trees over a sparse shrub layer and bramble or grassy field layer.

Scattered trees – including mature trees, especially oaks, are present along field boundaries and in fields. There is a standing dead tree among arable at TN2.

Scrub – there is scattered scrub along some field boundaries.

Streams – Sprats Brook is a small stream with a relatively natural channel comprising a silt and gravel bed and pool and riffle structure. There is frequent woody debris within the channel. Flow very low or absent at the time of the survey but water still patchily present. Within the Site it is set within Ruffet Wood and Sprats Brook Ancient Woodlands.

There is a small stream that flows from east to west through woodland from below Ramslye Cottages. Within the southern parcel of land it appears to be seasonal or ephemeral in nature. The invasive non-native Indian balsam is locally abundant.

A further very small stream or drain flows south from near Ramslye Farm between arable and grassland field on the western boundary of the southern part of the Site. This has small stands of yellow iris *Iris pseudoacorus*.

Ponds – there at least one pond in the Site and a further three ponds adjoining the Site boundary.

The pond at **TN3** is approximately 200m². It is shallow with much woody debris and leaf litter. There are small amounts of yellow iris, woody nightshade and duckweed *Lemna* sp. The OS map indicates the presence of a further pond to the north but this appears now to be a damp depression with grassy vegetation.

A damp depression within Ruffet Wood at **TN4** holds no water at the time of the survey but may hold some seasonally. It is heavily shaded with much woody and leaf debris. There is little vegetation but some patches of water starwort *Callitriche* sp.

The pond at Ramslye Farm (**TN5**) is set within a garden and has approximately 50% vegetation cover of, for example, yellow iris and greater reedmace *Typha latifolia*. There is a stand of Japanese knotweed on the adjoining bank.

There are two ponds in woodland at **TN6**. The larger is approximately 500m². It is shallow with much woody debris and leaf litter and some rubbish. Apart from a grey willow *Salix cinerea* there is little vegetation besides small amounts of woody nightshade *Solanum dulcamara* and gypsywort *Lycopus europaeus*. There is also a very small pond approximately 10-20m² and with no in-pond vegetation.

Field Survey: Protected and Notable Species

Grass snake – at **TN7**

Badger sett – within Ruffet Wood at **TN8** on a raised area of approximately 20 x 15m beside the adjoining seasonal pond. Comprised approximately 20 holes of which 5-6 exhibited signs of recent activity, including fresh spoil, hairs, bedding and latrines.

Field Survey: Invasive Non-native Species

Indian balsam – along the seasonal stream below Ramslye Cottage (**TN9**) and beside the Sprats Brook (**TN10**).

Japanese knotweed – stands beside the track to Ramslye Farm (**TN11**), within the woodland on the eastern boundary (**TN12** and **13**), on the edge of Sprats Brook Wood (**TN14**), on the bank forming the track over the Sprats Brook (**TN15**).

Cherry laurel – within Ruffet Wood and in the woodland on the eastern boundary, beside the A26.

Snowberry - in the woodland on the eastern boundary, beside the A26.

Assessment of Potential for Protected and Notable Species

Great crested newts – The ponds represent potential breeding sites and apart from the arable most habitats within the Site represent suitable terrestrial habitat for great crested newts.

Reptiles – Confirmed present (grass snake) and potential elsewhere, for example along field edges, beside the drive to Ramslye Farm and in the grassland in the east of the Site.

Breeding birds – In woodland, trees and scrub and arable also has potential for ground nesting species such as skylark.

Wintering birds – Some potential for e.g. wintering lapwing in the arable.

Bats – Trees and mature trees in particular, with features such as cracks and cavities, for example in the woodlands, hedges and along boundaries, have potential to be used as roosts. Activity throughout but especially in and beside woodland and along hedges and other boundary vegetation.

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

Brown hare – potential in arable but also grassland, field boundaries and woodland edge.

Badgers – Sett confirmed present and further potential for more setts in woodland hedges and other boundary vegetation, and any part of the Site may be used for foraging.

Recommendations for Further Survey (and optimal survey timings)

Amphibian (including great crested newt) – (March – June) of the ponds within and adjoining the Site.

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

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 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 – a large site which includes Ancient Woodland as well as other well developed woodland, mature trees, streams and ponds. The arable is of relatively low value.

The Sites location, adjacent or close to several areas of Ancient Woodland and High Rocks SSSI 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 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.

Construction Mitigation:

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

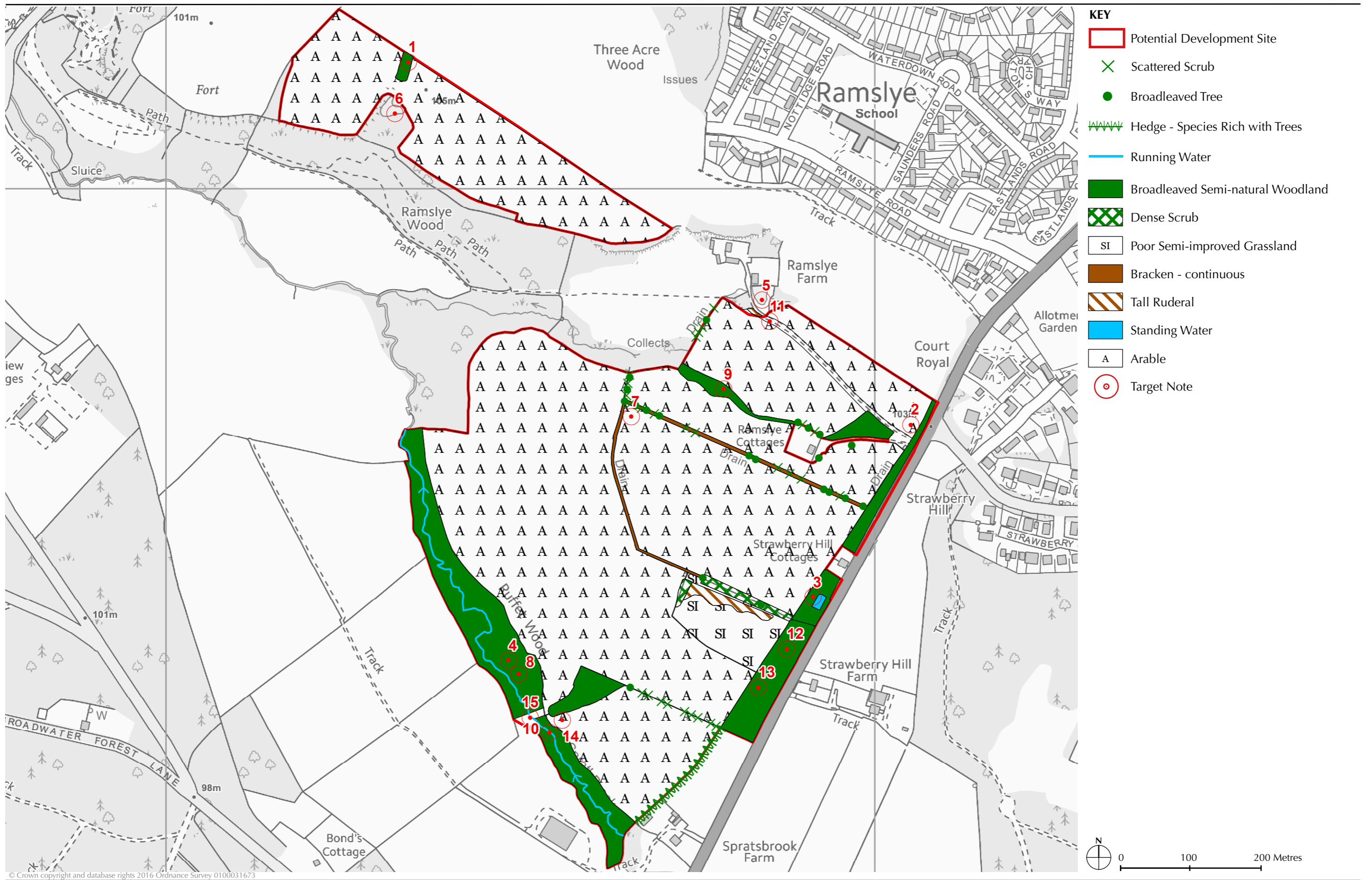
should be incorporated into the new development (for example in buffer strips beside retained hedges, as noted above).

- 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, hedges and scrub.
- 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.
- Habitat creation, ideally located adjacent to retained or adjoining areas of semi-natural habitat, or to form habitat corridors or links. To include for example:
 - Wildlife pond(s), included for example as part of a SuDS scheme connected with the existing watercourses;
 - Species-rich grassland and associated features for supporting a variety of terrestrial invertebrates, particularly along field boundaries adjacent to southern facing woodland edges;
 - Hedges;
 - 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: | Edge of Tunbridge Wells |
| Site Address: | Land at Hargate House, St. Marks Road, Tunbridge Wells |
| Site Reference Number: | 740/1610 |
| Site Summary Description | |
| A 1.46ha. large house with garden, including mature trees and hedges. | |
| ECOLOGICAL BASELINE | |
| Green Infrastructure Context (see Figure 16.1) | |
| <p>The Site is located on the southern urban fringe of Tunbridge Wells which gives way southward to a characteristic High Weald landscape of small to medium sized fields, including both grassland and arable, set within a relatively extensive and intact hedgerow network which includes frequent trees. Woodland, including Ancient Woodland, is relatively plentiful and includes both large and small parcels. The Site is bordered to the north by residential properties, to the east by a single dwelling set in large grounds, with hedge-lined fields to the south and woodland to the west.</p> | |
| Desk Study : Designated Sites within 1km (See Figure 16.2) | 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 – Whitehill Wood Lowland Heath BAP priority habitat (un-named) Lowland Heath BAP priority habitat (un-named) | <ul style="list-style-type: none"> 850m South 300m West 600m West |
| Desk Study: Protected and Notable Species within 1km | |
| <p>Protected Species <i>Triturus cristatus</i> Great Crested Newt</p> <p>Sussex BAP Species <i>Ecliptopera silaceata</i> Small Phoenix <i>Erynnis tages</i> Dingy skipper <i>Hoploclirina blanda</i> Rustic</p> <p>Sussex Rare Species Inventory <i>Apatura iris</i> Purple Emperor <i>Bromus secalinus</i> Rye Brome <i>Evergestis pallidata</i> Chequered Pearl <i>Osmunda regalis</i> Royal fern <i>Tetheella fluctuosa</i> Satin Lutestring</p> <p>Notable Bird Inventory <i>Corvus corax</i> Raven <i>Dendrocopos minor</i> Lesser Spotted Woodpecker <i>Lullula arborea</i> Woodlark <i>Vanellus vanellus</i> Lapwing</p> | |

| | | | | | | | | | | | | |
|--|---------------------------------|------------------|-----------------------|------------|--------------------------|-------------------|-------------------------------|---------------|----------------------------|---------------|-------------------------|--------------|
| <p>Invasive Alien Species Inventory</p> <table> <tr> <td><i>Cotoneaster horizontalis</i></td> <td>Wall cotoneaster</td> </tr> <tr> <td><i>Crocsmia aurea</i></td> <td>Montbretia</td> </tr> <tr> <td><i>Fallopia japonica</i></td> <td>Japanese knotweed</td> </tr> <tr> <td><i>Impatiens glandulifera</i></td> <td>Indian balsam</td> </tr> <tr> <td><i>Prunus laurocerasus</i></td> <td>Cherry laurel</td> </tr> <tr> <td><i>Rhododendron</i> sp.</td> <td>Rhododendron</td> </tr> </table> | <i>Cotoneaster horizontalis</i> | Wall cotoneaster | <i>Crocsmia aurea</i> | Montbretia | <i>Fallopia japonica</i> | Japanese knotweed | <i>Impatiens glandulifera</i> | Indian balsam | <i>Prunus laurocerasus</i> | Cherry laurel | <i>Rhododendron</i> sp. | Rhododendron |
| <i>Cotoneaster horizontalis</i> | Wall cotoneaster | | | | | | | | | | | |
| <i>Crocsmia aurea</i> | Montbretia | | | | | | | | | | | |
| <i>Fallopia japonica</i> | Japanese knotweed | | | | | | | | | | | |
| <i>Impatiens glandulifera</i> | Indian balsam | | | | | | | | | | | |
| <i>Prunus laurocerasus</i> | Cherry laurel | | | | | | | | | | | |
| <i>Rhododendron</i> sp. | Rhododendron | | | | | | | | | | | |
| <p>Field Survey: Habitat Descriptions (See Figure 16/740)</p> | | | | | | | | | | | | |
| <p>Amenity grassland – lawns. Poor semi-improved grassland – species-poor meadow-type areas, unmown at time of survey. Scattered broadleaved trees – including mature oak, beech, sweet chestnut and sycamore. Scattered coniferous trees. Species poor hedge – including yew and beech. Introduced shrub – specimens and borders. House – large with pitched, tiled roof.</p> | | | | | | | | | | | | |
| <p>Field Survey: Protected and Notable Species</p> | | | | | | | | | | | | |
| <p>No species considered notable for their nature conservation value recorded during the Phase I habitat field survey.</p> | | | | | | | | | | | | |
| <p>Field Survey: Invasive Non-native Species</p> | | | | | | | | | | | | |
| <p>No non-native invasive species recorded during the survey.</p> | | | | | | | | | | | | |
| <p>Assessment of Potential for Protected and Notable Species</p> | | | | | | | | | | | | |
| <p>Reptiles – some potential in the areas of taller grassland in the south and east, though this is likely to be seasonal in nature. Breeding birds – in trees shrubs and hedges. Bats – Trees and mature trees in particular, with features such as cracks and cavities have potential to be used as roosts. The house, especially the roof, has high potential for supporting bat roosts Given the habitats and features present activity, including foraging and commuting, is likely throughout, but especially in and around woodland, trees and hedges.</p> | | | | | | | | | | | | |
| <p>Recommendations for Further Survey (and optimal survey timings)</p> | | | | | | | | | | | | |
| <p>Reptiles – (May – June, September – October) in suitable habitat. Bats – (inspections: year round; activity surveys April – October) in the first instance inspection of trees and house to determine the scope for further survey.</p> | | | | | | | | | | | | |
| <p>INDICATIVE ECOLOGICAL APPRAISAL</p> | | | | | | | | | | | | |
| <p>Low value - house and garden, but with some limited potential to support protected species.</p> | | | | | | | | | | | | |
| <p>Impact Avoidance</p> | | | | | | | | | | | | |
| <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 existing mature trees where feasible. • 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 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.
- 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 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.

Potential Enhancement Opportunities

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

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



| ECOLOGICAL ASSESSMENT | |
|---|---|
| Settlement/Area: | Edge of Tunbridge Wells |
| Site Address: | Land off Bayham Road, Tunbridge Wells |
| Site Reference Number: | 755/1610 |
| Site Summary Description | |
| Two poor semi-improved grassland fields with boundary hedges, including mature trees, totalling 5.05ha. | |
| ECOLOGICAL BASELINE | |
| Green Infrastructure Context (see Figure 16.1) | |
| The Site is located on the southern urban fringe of Tunbridge Wells which gives way southward to a characteristic 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. Bayham Road forms the Site's northern boundary with hedge lined pasture and occasional mature trees lying to the east, west and south. | |
| Desk Study : Designated Sites within 1km (See Figure 16.2) | Distance from Site |
| <ul style="list-style-type: none"> The Site is less than 1km from the Hawkenbury Farm Meadows LWS. The Citation summary describes the Site as follows: "<i>Traditionally farmed unploughed meadow with patches of botanical interest and adjacent intact mature hedgerows</i>". | <ul style="list-style-type: none"> Approximately 680m to the north east of the Site. |
| Desk Study: BAP Priority Habitats within 1km | Distance from Site |
| <ul style="list-style-type: none"> Ancient & semi-natural woodland – Tangier Farm Shaw Ancient & semi-natural woodland – Whitehill Wood | <ul style="list-style-type: none"> 350m South 950m South West |
| Desk Study: Protected and Notable Species within 1km | |
| <p>Protected Species</p> <p><i>Pipistrellus pipistrellus</i> Common pipistrelle bat</p> <p><i>Pipistrellus pygmaeus</i> Soprano pipistrelle bat</p> <p>Sussex BAP Species</p> <p><i>Erynnis tages</i> Dingy skipper</p> <p><i>Limenitis camilla</i> White Admiral</p> <p><i>Pyrgus malvae</i> Grizzled Skipper</p> <p>Sussex Rare Species Inventory</p> <p><i>Andrena tibialis</i></p> <p><i>Andrena trimmerana</i> Trimmer's mining bee</p> <p><i>Apatura iris</i> Purple Emperor</p> <p><i>Orthotrichum striatum</i> Shaw's Bristle-moss</p> | |

| | |
|---|-------------------|
| <i>Osmunda regalis</i> | Royal fern |
| Notable Bird Inventory | |
| <i>Corvus corax</i> | Raven |
| Invasive Alien Species Inventory | |
| <i>Campylopus introflexus</i> | Heath Star Moss |
| <i>Cotoneaster horizontalis</i> | Wall cotoneaster |
| <i>Crocsmia aurea</i> | Montbretia |
| <i>Fallopia japonica</i> | Japanese knotweed |
| <i>Impatiens glandulifera</i> | Indian balsam |
| <i>Prunus laurocerasus</i> | Cherry laurel |
| Field Survey: Habitat Descriptions (See Figure 16/755) | |
| <p>Poor semi-improved grassland – the eastern field is rather species poor with Yorkshire fog <i>Holcus lanatus</i>, common bent <i>Agrostis capillaris</i>, sweet vernal-grass <i>Anthoxanthum odoratum</i>, false oat-grass <i>Arrhenatherum elatius</i> and perennial rye-grass <i>Lolium perenne</i> but also including a number of species characteristic of less improved grasslands, such as common knapweed <i>Centaurea nigra</i>, bird's foot trefoil <i>Lotus corniculatus</i>, greater bird's foot trefoil <i>Lotus pedunculatus</i>, red clover <i>Trifolium pratense</i>, meadow vetchling <i>Lathyrus pratensis</i> and ox-eye daisy <i>Leucanthemum vulgare</i>. The western field is similar, though less rich, with much lower representation of forbs/wild flowers and frequent broadleaved dock <i>Rumex obtusifolius</i>. Both fields are uncut at the time of survey but likely to be cut for hay or silage.</p> <p>Hedges –variable, most are species rich with mature trees, especially oaks, but some are species poor and dominated by hawthorn or alder.</p> | |
| Field Survey: Protected and Protected Species | |
| No species considered notable for their nature conservation value recorded during the Phase I habitat field survey. | |
| Field Survey: Invasive Non-native Species | |
| No non-native invasive species recorded during the survey. | |
| Assessment of Potential for Protected and Notable Species | |
| <p>Reptiles – some potential along boundary between grassland and hedges.</p> <p>Breeding birds – in all hedges. Some potential for ground nesting species, such as skylark among grassland.</p> <p>Bats – Trees and mature trees in the hedgerows in particular, with features such as cracks and cavities have potential to be used as roosts. Foraging and commuting activity may also occur along all the Site's boundaries.</p> <p>Dormice – Limited potential in hedges.</p> <p>Badgers – Limited potential for setts within the boundary hedgerows, but with or without setts badgers may also use any or the entire site for foraging. However, neither setts nor foraging signs are recorded during the survey.</p> | |

Recommendations for Further Survey (and optimal survey timings)

Reptiles – (May – June, September – October) along boundaries in particular.

Breeding birds – (April – June) across 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 hedges.

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

INDICATIVE ECOLOGICAL APPRAISAL

Low to Moderate value – the eastern grassland field retains/supports some diversity and the hedges are more or less intact and contain mature trees. The habitats and features present have some potential to support notable/protected species.

Impact Avoidance

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

- Retaining and buffering the 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.
- 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 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

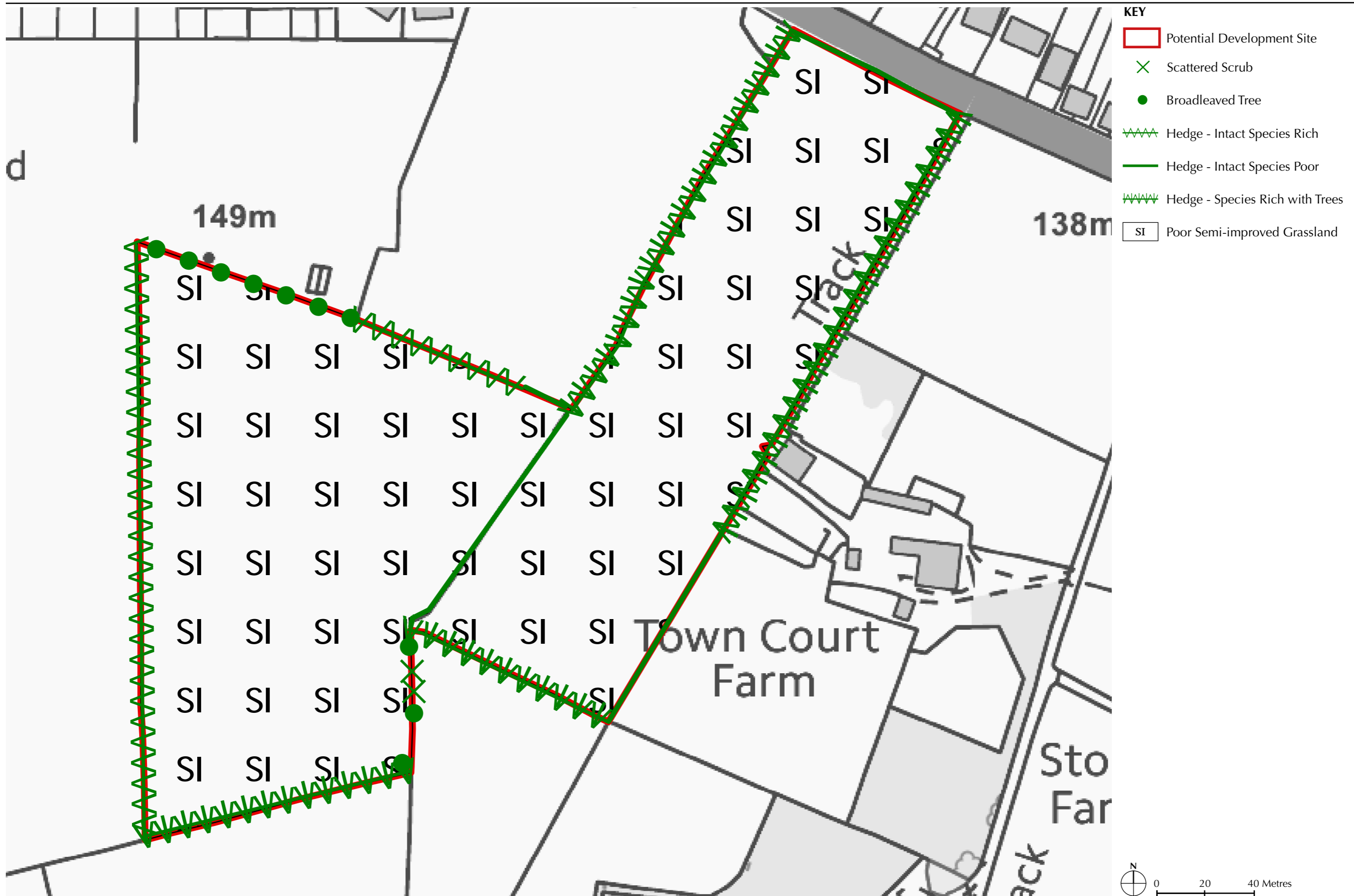
may support bat roosts should make use of backboards and/or internal louvres to ensure light is directed into the Site and light spill into the adjacent areas of retained habitat is minimised.

- If dormice are found to be present the retention and appropriate buffering of the 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 hedges and mature trees.
- Strengthen boundary vegetation, for example by planting appropriate native species to form hedges along the Site's boundaries.
- Habitat creation, ideally located adjacent to retained or adjoining areas of semi-natural habitat, for example a field corner or along the Site's southern and western boundaries, 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;
- Implementation of good management practices for retained habitats, notably hedgerow and tree management.



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| ECOLOGICAL ASSESSMENT | |
|---|--|
| Settlement/Area: | Edge of Tunbridge Wells |
| Site Address: | Land at Little Mount Farm, Benhall Mill Road, Tunbridge Wells |
| Site Reference Number: | 796/1610 |
| Site Summary Description | |
| A 3.84ha. Site comprising of a house with outbuilding(s)/garage and large garden, including lawns, planted beds and borders, specimen trees, broadleaved plantation and pond. There is a relic hedge, including mature oak trees, on the southern boundary with Benhall Mill Road. | |
| ECOLOGICAL BASELINE | |
| Green Infrastructure Context (see Figure 16.1) | |
| The Site is located on the southern urban fringe of Tunbridge Wells which gives way southward to a characteristic High Weald landscape of small to medium sized fields, including both grassland and arable, set within a relatively extensive and intact hedgerow network which includes frequent trees. Woodland, including Ancient Woodland, is relatively plentiful and includes both large and small parcels. The Site is bordered to the south and west by Benhall Mill Road with a golf course further south and residential properties further west. The eastern boundary borders a railway line embankment lined with trees. | |
| Desk Study : Designated Sites within 1km (See Figure 16.2) | Distance from Site |
| <ul style="list-style-type: none"> The Site is less than 1km from the Hawkenbury Farm Meadows LWS. The Citation summary describes the Site as follows: <i>“Traditionally farmed unploughed meadow with patches of botanical interest and adjacent intact mature hedgerows”</i>. | <ul style="list-style-type: none"> Approximately 350m to the north west of the Site. |
| Desk Study: BAP Priority Habitats within 1km | Distance from Site |
| <ul style="list-style-type: none"> Ancient & semi-natural woodland – Benhall Wood Ancient & semi-natural woodland – High Wood Ancient & semi-natural woodland – Brook Farm Shaw Ancient & semi-natural woodland – Sussex Shaw | <ul style="list-style-type: none"> 600m East 800m North East 950m South 800m North |
| Desk Study: Protected and Notable Species within 1km | |
| <p>Protected Species</p> <p><i>Pipistrellus pipistrellus</i> Common pipistrelle</p> <p><i>Pipistrellus pygmaeus</i> Soprano pipistrelle</p> <p><u>Notable Bird Inventory</u></p> <p><i>Corvus corax</i> Raven</p> <p><i>Hirundo rustica</i> Swallow</p> <p>Sussex Rare Species Inventory</p> <p><i>Adrena tibialis</i></p> <p><i>Andrena trimmerana</i> Trimer’s mining bee</p> <p><i>Orthotrichum striatum</i> Shaw's Bristle-moss</p> <p><i>Osmia leaiana</i></p> | |

Invasive Alien Species Inventory

| | |
|----------------------------------|-----------------------------|
| <i>Campylopus introflexus</i> | Heath Star Moss |
| <i>Cotoneaster horizontalis</i> | Wall cotoneaster |
| <i>Cotoneaster simonsii</i> | Himalayan cotoneaster |
| <i>Crocsmia aurea</i> | Montbretia |
| <i>Fallopia japonica</i> | Japanese knotweed |
| <i>Fallopia sachalinensis</i> | Giant Knotweed |
| <i>Impatiens glandulifera</i> | Indian balsam |
| <i>Lamium galeobdolon subsp.</i> | Variegated yellow archangel |
| <i>Petasites fragrans</i> | Winter Heliotrope |
| <i>Prunus laurocerasus</i> | Cherry laurel |
| <i>Rhododendron sp.</i> | Rhododendro |

Field Survey: Habitat Descriptions (See Figure 16/796)

Amenity Grassland – large species-poor lawns

Scattered broadleaved and coniferous trees – various planted set among amenity grassland.

Broadleaved and mixed plantation – largest area is on the southern boundary adjoining the hedge and Benhall Mill Road. Comprises even-aged (approx. 20yrs) stands of mixed native and non-native species, including birch, field maple, horse chestnut and hazel. Other areas on the eastern boundary and north of the house are mixed, with Scot's pine. A small area on the northern boundary is of more recent origin and includes wild cherry. The field layer of the plantations is species poor, comprising much bare ground but also stands of nettle and bramble.

Broadleaved semi-natural woodland – there is a stand of even-aged birch set among the lawns in the south east of the Site which appears as though it may have regenerated naturally, although it includes stands of *Rhododendron*. There is little other in terms of shrub layer and the field layer is grassy. There is a narrow strip of trees and shrubs/woodland on the boundary with the railway line, comprising largely of birch but also planted cherry laurel.

Species-rich hedge with trees – along the boundary with Benhall Mill Road, including hazel, holly, hawthorn and mature oak trees.

Standing water/pond – a pond in the south east of the Site with approx. 80% cover of broadleaved pondweed *Potamogeton natans* and 10-15% of fringing emergent and marginal vegetation, including greater reedmace *Typha latifolia* and yellow iris *Iris pseudoacorus*. Planted *Rhododendron*, giant rhubarb *Gunnera sp.* And trees are present on the banks as is a narrow strip of wet unmown grassland, including soft rush *Juncus effuses* and greater bird's foot trefoil *Lotus uliginosus*.

House and outbuildings – house and outbuildings have pitched tiled roofs as well as tile-hung walls.

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

Invasive non-native species including *Rhododendron*, cherry laurel and giant rhubarb are recorded during the survey.

Assessment of Potential for Protected and Notable Species

Great crested newts – The pond represents a potential breeding site and habitats within the Site, including the woodland and plantations represent suitable terrestrial habitat for great crested newts

Reptiles – limited potential among e.g. taller grassland around edges of pond etc.

Breeding birds – in all woody vegetation, especially woodland and plantation. Swallows are perching on

the buildings and may use some of them for nesting.
Bats – house and outbuildings have some potential to be used as bat roosts, though modern garage appears to have low potential. Trees and mature trees in particular, with features such as cracks and cavities have potential to be used as roosts. Given the habitats and features present activity, including foraging and commuting, is likely throughout, but especially in and around woodland, trees and hedges.
Dormice – some potential in woodland, plantation and hedge.
Badgers – potential for setts in hedge, plantation and other woody vegetation, but with or without setts badgers may also use any or the entire site for foraging. However, neither setts nor foraging signs are recorded during the survey.

Recommendations for Further Survey (and optimal survey timings)

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

INDICATIVE ECOLOGICAL APPRAISAL

Low to Moderate value – the amenity grassland is considered of low value. The pond, hedge and woodland and plantations are considered of moderate value. The habitats and features present have some potential to support notable/protected species.

Impact Avoidance

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

- Retaining the pond (including an area of grassland on its western and southern edges), hedge, woodland and plantations, especially those on the southern and eastern boundaries.
- As far as possible and appropriate retaining and buffering habitats and features supporting notable/protected species, based on the results of more detailed surveys.

Outline Mitigation

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

- Implementation of a Construction and Environmental Management Plan (CEMP) to manage site-specific issues relating to the potential impacts of construction on ecological features of interest.
- 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.
- Positively manage pond (and associated grassland), hedge, woodland and plantations, including removal of invasive non-native species such as *Rhododendron*, cherry laurel and giant rhubarb.
- If great crested newts are found in the pond appropriate measures will need to be put in place to

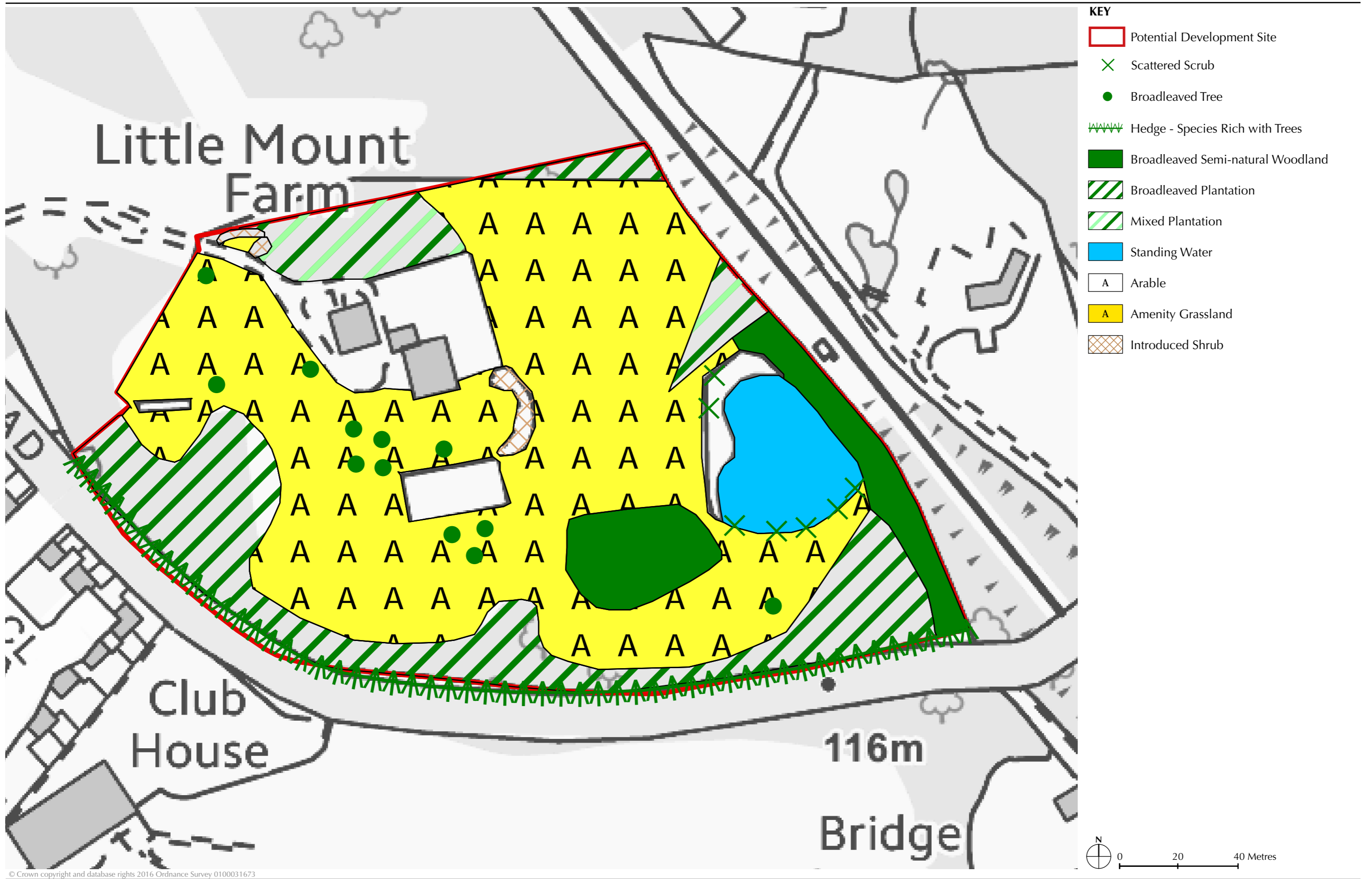
prevent harm to them, for example retention of pond and adequate adjoining terrestrial habitat, herp fencing any development site, and possible trapping and translocation to a suitable receptor site.

- 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.
- 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 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 the 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 hedges and mature trees.
- Strengthen boundary vegetation, for example by planting appropriate native species to form hedges along the Site's boundaries.
- Habitat creation, ideally located adjacent to retained or adjoining areas of semi-natural 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;
- Implementation of good management practices for retained habitats, notably hedgerow and tree management.



| ECOLOGICAL ASSESSMENT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|---------------------------------|----------------|---------------------------|--------------------|---------------------|-------|------------------------------|---------------|----------------------|---------------|--------------------------|--------|--------------------------|---------------|---------------------------------|----------------|----------------------|------------------|---------------------|-------|--------------------------|---------------------------|------------------------|---------|------------------------|----------|--------------------------|---------|
| Area: | Edge of Tunbridge Wells | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Site Name: | Whinlatter, St Marks Road, Tunbridge Wells | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Site Reference Number: | 818/1610 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Site Summary Description | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| The Site is 1.29ha in size and comprises a large house with garden, including mature trees and hedges. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ECOLOGICAL BASELINE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Green Infrastructure Context (see Figure 16.1) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| The Site is located on the southern urban fringe of Tunbridge Wells which gives way southward to a characteristic High Weald landscape of small to medium sized fields, including both grassland and arable, set within a relatively extensive and intact hedgerow network which includes frequent trees. Woodland, including Ancient Woodland, is relatively plentiful and includes both large and small parcels. The Site is bordered to the north by residential properties and to the west by a single property set in large grounds. To the south and east, hedge-lined fields. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Desk Study : Designated Sites within 1km (See Figure 16.1) | 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 – Whitehill Wood Lowland Heath BAP priority habitat (un-named) Lowland Heath BAP priority habitat (un-named) | <ul style="list-style-type: none"> 850m South 400m West 700m West | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Desk Study: Protected and Notable Species within 1km | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Protected Species Inventory</p> <table> <tr> <td><i>Muscardinus avellanarius</i></td> <td>Hazel Dormouse</td> </tr> <tr> <td><i>Triturus cristatus</i></td> <td>Great Crested Newt</td> </tr> <tr> <td><i>Vipera berus</i></td> <td>Adder</td> </tr> </table> <p>Sussex BAP Species</p> <table> <tr> <td><i>Ecliptopera silaceata</i></td> <td>Small Phoenix</td> </tr> <tr> <td><i>Erynnis tages</i></td> <td>Dingy skipper</td> </tr> <tr> <td><i>Hoplodrina blanda</i></td> <td>Rustic</td> </tr> <tr> <td><i>Limenitis camilla</i></td> <td>White Admiral</td> </tr> <tr> <td><i>Muscardinus avellanarius</i></td> <td>Hazel Dormouse</td> </tr> <tr> <td><i>Pyrgus malvae</i></td> <td>Grizzled Skipper</td> </tr> </table> <p>Notable Bird Inventory</p> <table> <tr> <td><i>Corvus corax</i></td> <td>Raven</td> </tr> <tr> <td><i>Dendrocopos minor</i></td> <td>Lesser Spotted Woodpecker</td> </tr> <tr> <td><i>Hirundo rustica</i></td> <td>Swallow</td> </tr> <tr> <td><i>Lullula arborea</i></td> <td>Woodlark</td> </tr> <tr> <td><i>Vanellus vanellus</i></td> <td>Lapwing</td> </tr> </table> | | <i>Muscardinus avellanarius</i> | Hazel Dormouse | <i>Triturus cristatus</i> | Great Crested Newt | <i>Vipera berus</i> | Adder | <i>Ecliptopera silaceata</i> | Small Phoenix | <i>Erynnis tages</i> | Dingy skipper | <i>Hoplodrina blanda</i> | Rustic | <i>Limenitis camilla</i> | White Admiral | <i>Muscardinus avellanarius</i> | Hazel Dormouse | <i>Pyrgus malvae</i> | Grizzled Skipper | <i>Corvus corax</i> | Raven | <i>Dendrocopos minor</i> | Lesser Spotted Woodpecker | <i>Hirundo rustica</i> | Swallow | <i>Lullula arborea</i> | Woodlark | <i>Vanellus vanellus</i> | Lapwing |
| <i>Muscardinus avellanarius</i> | Hazel Dormouse | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <i>Triturus cristatus</i> | Great Crested Newt | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <i>Vipera berus</i> | Adder | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <i>Ecliptopera silaceata</i> | Small Phoenix | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <i>Erynnis tages</i> | Dingy skipper | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <i>Hoplodrina blanda</i> | Rustic | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <i>Limenitis camilla</i> | White Admiral | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <i>Muscardinus avellanarius</i> | Hazel Dormouse | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <i>Pyrgus malvae</i> | Grizzled Skipper | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <i>Corvus corax</i> | Raven | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <i>Dendrocopos minor</i> | Lesser Spotted Woodpecker | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <i>Hirundo rustica</i> | Swallow | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <i>Lullula arborea</i> | Woodlark | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <i>Vanellus vanellus</i> | Lapwing | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Sussex Rare Species Inventory

| | |
|-------------------------------|-----------------------|
| <i>Apatura iris</i> | Purple Emperor |
| <i>Bromus secalinus</i> | Rye Brome |
| <i>Evergestis pallidata</i> | Chequered Pearl |
| <i>Metriopectera roeselii</i> | Roesel's Bush-cricket |
| <i>Osmunda regalis</i> | Royal fern |
| <i>Tetheella fluctuosa</i> | Satin Lutestring |

Invasive Alien Species Inventory

| | |
|---------------------------------|-------------------|
| <i>Cotoneaster horizontalis</i> | Wall cotoneaster |
| <i>Crocsmia aurea</i> | Montbretia |
| <i>Fallopia japonica</i> | Japanese knotweed |
| <i>Impatiens glandulifera</i> | Indian balsam |
| <i>Petasites fragrans</i> | Winter Heliotrope |
| <i>Prunus laurocerasus</i> | Cherry laurel |
| <i>Rhododendron sp.</i> | Rhododendron |

Field Survey: Habitat Description (See Figure 16/818)

Amenity grassland – lawns with typical range of species. Southernmost area mown as lawn but probably former field with marsh thistle *Cirsium palustre*, common knapweed *Centaurea nigra*, ox-eye daisy *Leucanthemum vulgare*, cinquefoil *Potentilla reptans* and greater bird's foot trefoil *Lotus uliginosus*.

Scattered broadleaved trees – including mature oaks on eastern boundary.

Scattered coniferous trees – along the Site's north western boundaries, mostly Scot's pine.

Species poor hedge – running through the southern and central parts of the Site. Hedge includes conifer.

Introduced shrub – specimens and borders.

House – large with pitched, 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 non-native invasive species recorded during the survey.

Assessment of Potential for Protected and Notable Species

Reptiles – some potential in the areas of taller grassland in the south and east, though this is likely to be seasonal in nature.

Breeding birds – in trees shrubs and hedges.

Bats – Trees and mature trees in particular, with features such as cracks and cavities have potential to be used as roosts. The house, especially the roof, has high potential for supporting bat roosts. Given the habitats and features present activity, including foraging and commuting, is likely throughout, but especially in and around trees and hedges.

Recommendations for Further Survey (and optimal survey timings)

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

INDICATIVE ECOLOGICAL APPRAISAL

Low value - house and garden but with some limited potential to support 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 existing mature trees on the Site boundary where feasible.
- 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.
- 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 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.

Potential Enhancement Opportunities

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

- Positively and appropriately manage retained habitats and features, including hedges and mature trees.
- Strengthen boundary vegetation, for example by planting appropriate native species to form hedges along all of the Site's boundaries.
- Habitat creation, 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;
- Implementation of good management practices for retained habitats, notably hedgerow and tree management.

