

Biodiversity Survey and Report for the Supply and Installation of a 20.8kW Solar Photovoltaic System at Birling Manor, Birling Gap, Sussex



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- **To save on initial costs we ask that consideration be made to a previous Ecological report carried out in 2017 at Birling Manor be used. (inserted below)**



Preliminary Ecological Appraisal

August 2017

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Birling Manor

August 2017

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Non-technical Summary

A Preliminary Ecological Appraisal was carried out Birling Manor, East Dean on the 21st July 2017, in order to determine whether any ecological constraints could affect the proposed works for the site.

Current proposals are for the re-alignment of the existing driveway into a small copse of trees adjacent to Birling Gap Road, East Dean. The survey area extended over approximately 0.17 hectares (ha).

The main findings of the survey are as follows:

- The site is located at Birling Manor adjacent to Birling Gap Road approximately 880m south of the A259. The site comprised woodland, amenity grassland, two sections of species poor hedgerow and hardstanding in the form of the existing driveway. Gilbert Drive borders the site to the west. Agricultural fields, woodland blocks and hedgerows, together with additional agricultural buildings associated with the wider area of Birling Manor and East Dean bound the site in all directions.
- The National Grid Reference for the centre of the site is TV557 970. The survey area extended over approximately 0.17 hectares (ha).
- It is understood that the proposals are for the re-alignment of the existing driveway into a small copse of trees adjacent to Birling Gap Road, East Dean.
- The site is not subject to any statutory or non-statutory designations. The closest statutory site is the Seaford to Beachy Head Site of Special Scientific Interest (SSSI) located approximately 130m west at its closest point.
- On the basis of the survey results and the above criteria, habitats within the site are considered to be of ecological value in the immediate vicinity only. The site provides suitable habitat to support protected species including breeding birds and foraging badgers and bats. However, populations of these are unlikely to be significant at a district level.
- It is considered that precautionary working methods to vegetation clearance in respect to breeding birds is sufficient to safe guard this species group during works. A precautionary approach in respect to badgers is also recommended throughout works in order to safeguard this species.
- As the proposed works are not planned to be illuminate beyond the current levels it is not considered that the works will have a negative effect on foraging bats and no constraints are considered in respect to this species group.
- Details regarding precautionary working practices together with habitat enhancement measures are provided in the Recommendations section of the report.

1. Introduction

Background

- 1.1 Phlorum Ltd has been commissioned by Mackellar Schwerdt Architects to undertake a Preliminary Ecological Appraisal to inform the potential ecological constraints of proposed future development at Birling Manor, East Dean in East Sussex (hereafter referred to as “the site”).
- 1.2 The purpose of the Preliminary Ecological Appraisal was:
 - 🌿 to identify the major habitats present
 - 🌿 to identify the potential for any legally protected species to be present; and
 - 🌿 to recommend any additional ecological surveys, if required.
- 1.3 As part of the assessment, a desktop review and a site visit were carried out. The results of which were used to assess the nature conservation importance of the site and the potential of the site to support protected species.
- 1.4 Recommendations for further ecological surveys are made at the end of the report.
- 1.5 This report has been compiled in accordance with current guidelines (British Standard 42020:2013 Biodiversity. Code of Practice for Planning and Development, 2013 and CIEEM, 2013 & 2016).
- 1.6 It is understood that the proposals are for the re-alignment of the existing driveway into a small copse of trees adjacent to Birling Gap Road, East Dean.

Site Description

- 1.7 The site is located at Birling Manor adjacent to Birling Gap Road approximately 880m south of the A259. The site comprised woodland, amenity grassland, two sections of species poor hedgerow and hardstanding in the form of the existing driveway. Gilbert Drive borders the site to the west. Agricultural fields, woodland blocks and hedgerows, together with additional agricultural buildings associated with the wider area of Birling Manor and East Dean bound the site in all directions.
- 1.8 Within the wider surrounds the English Channel lies 1.1km south at its closest point immediately beyond Birling Gap National Trust Centre. The village of East Dean is located approximately 660m north being intersected by Gilberts Drive.
- 1.9 The National Grid Reference for the centre of the site is TV557 970. The survey area extended over approximately 0.17 hectares (ha).

2. Methodology

Desk Study & Consultations

- 2.1 The desktop study involved conducting database searches for statutory and non-statutory designated sites, legally protected species and features of interest within a 2km radius of the site. The data search was based on available information provided by the following sources:
- Sussex biodiversity records centre (SxBRC, 2017);
 - Multi-Agency Geographical Information for the Countryside (MAGIC, 2017);
 - National Biodiversity Network (NBN) (2017);
 - Ordnance Survey mapping; and
 - Aerial photography.

Habitat Survey and Assessment

- 2.2 Phlorum Limited carried out an ecological survey of the site on 21st July 2017. The survey was carried out by a suitably qualified ecologist, Jack Kellett who has over six years professional experience of undertaking ecological surveys. The weather conditions during the survey were sunny and dry with a moderate wind.
- 2.3 The field survey comprised a walkover inspection of the land and habitats present. The survey followed standard Phase 1 survey methodology (JNCC, 2010) and covered all accessible parts of the site, including boundary features. Habitats were described and mapped (Figure 1: Appendix B). A list of plant species was compiled, together with an estimate of abundance made according to the DAFOR scale (Appendix D).
- 2.4 This assessment provides information on the habitats in the survey area and identifies actual or potential presence of legally protected or otherwise notable species/habitats in or immediately adjacent to the site.
- 2.5 Target notes highlighting a particular feature of ecological interest are provided in Appendix A, with associated photographs.
- 2.6 Scientific names are given after the first mention of a species, thereafter, common names only are used. Nomenclature follows Stace (2010) for vascular plant species.

Protected Species Assessment

- 2.7 The potential for the site to provide habitat for protected species was assessed from field observations in conjunction with results of the desk study. The site was inspected for indications of the presence of protected species including:
- Habitat considered suitable to support widespread reptile species including areas with a scrub/grassland mosaic and potential hibernation sites;

- On-site ponds offering potential breeding opportunities for great crested newt (*Triturus cristatus*) and the presence of suitable terrestrial habitat including hedgerows and rough grassland;
 - The presence of features in, and on trees, indicating potential for roosting bats Chiroptera, including knot and rot holes and loose bark and features on buildings including loose or missing tiles or gaps in soffits. Secondary evidence of bats including staining, droppings and feeding remains were also looked for;
 - The presence of nesting habitat for breeding birds, including mature trees, dense scrub and hedgerows and direct evidence of bird nesting including bird song, old nests etc.;
 - Habitats considered suitable to support badger (*Meles meles*) setts, and evidence in the form of hair, pathways and latrines;
 - Presence of woodland and or hedgerows providing suitable habitat to support hazel dormouse (*Muscardinus avellanarius*); and
 - Riparian habitat supporting suitable features for water vole (*Arvicola amphibius*) and otter (*Lutra lutra*).
- 2.8 The potential presence for protected species is categorised as Negligible, Low, Moderate, High or Present, based on the findings of the field survey and on the evaluation of existing data.
- 2.9 The purpose of this assessment is to identify whether more comprehensive Phase 2 surveys for protected species or mitigation should be recommended.

Caveat

Data Search Constraints

- 2.10 It is important to note that, even where data is held, a lack of records for a defined geographical area does not necessarily mean that there is a lack of ecological interest; the area may be simply under-recorded.

Survey Constraints

- 2.11 Ecological surveys are limited by factors that affect presence of plants and animals such as seasonality. Whilst every effort has been made to provide a comprehensive description of the site, no investigation can ensure the complete characterisation of the environment.
- 2.12 The appraisal does not constitute a full botanical survey, or a Phase 2 pre-construction survey that would include accurate GIS mapping for invasive or protected plant species. This survey provides a preliminary view of the likelihood of protected species occurring on the site based on the suitability of the habitat, known distribution of the species in the local area and any direct evidence on the site. It is therefore used as a tool to recommend further protected species surveys (or other species of significant nature conservation interest) if on the basis of the preliminary assessment or during subsequent surveys, it is considered reasonably likely that protected species may be present.
- 2.13 It is however considered that the survey was sufficiently rigorous to assess the ecological value of the site.

3. Baseline Conditions

Aerial Photography and OS Maps

- 3.1 Aerial photography indicates that there is one pond located within 500m of the development footprint.
- 3.2 Aerial photography shows that agricultural fields, hedgerows, ancient woodland blocks and treelines dominate the surrounding area.

Statutory and Non-Statutory Designated Sites

Statutory Sites

- 3.3 The site is not subject to any statutory designations. The closest statutory site is the Seaford to Beachy Head Site of Special Scientific Interest (SSSI) located approximately 130m west at its closest point. The site is designated for its diverse range of habitats including species rich chalk grassland, foreshore and chalk cliffs. The site does not provide any supporting habitat for this statutory designated site.

Non-statutory Sites

- 3.4 The site is not subject to any non-statutory designations. There is a single non-statutory site within a 2km radius of the site. Friston Forest Local Wildlife Site (LWS) is located 1.3km north west of the survey area. The site is designated for its rare plant species to include yellow bird's nest (*Monotropa hypopitys*) and pheasant's eye (*Adonis annua*). The site does not support any features for this designation.

Habitats

Site Summary

- 3.5 The main habitats recorded within the site are described below. Additional details are shown on the habitat survey plan in Appendix B, and the target notes are listed in Appendix A.

Hardstanding

- 3.6 Hardstanding in the form of a concrete/gravel driveway created the norther extent of the survey area.

Plantation Woodland

- 3.7 A small stand of plantation woodland dominated the survey area. Canopy species comprised sycamore (*Acer pseudoplatanus*) and ash (*Fraxinus excelsior*), with an understorey of sweet chestnut (*Castanea sativa*), beech (*Fagus sylvatica*), hawthorn (*Crataegus monogyna*) and sorbus (*Sorbus* sp.). Ground flora was dominated by ivy (*Hedera helix*) with scattered stinging nettle (*Urtica dioica*), cleavers (*Galium aparine*), bramble (*Rubus fruticosus* agg.), yellow flag iris (*Iris pseudacorus*) and cow parsley (*Anthriscus sylvestris*).

Amenity Grassland

- 3.8 The road side verges were created from well-maintained amenity grassland. Dominant species included perennial rye grass (*Lolium perenne*), fescue (*Festuca rubra/ovina*), dandelion sp. (*Taraxacum* sp.), ribwort plantain (*Plantago lanceolata*), broadleaf plantain (*Plantago major*) and white clover (*Trifolium repens*).

Hedgerow

- 3.9 Two lengths of well-maintained single species hedgerow formed a boundary between the grass verges and the central woodland block. The north hedge was dominated by garden privet (*Ligustrum ovalifolium*) and the western hedge running parallel with Gilbert's Drive was dominated by beech.

Protected Species

- 3.10 Legislation relating to the protected species referred to in this section is included in Appendix C.
- 3.11 The following paragraphs detail the suitability of the on-site habitats to support protected species and include information from the data search for protected, rare and otherwise notable species returned within a 2km radius.

Reptiles

- 3.12 The data search returned recent (post 2004) records for grass snake (*Natrix natrix*), slow worm (*Anguis fragilis*), common lizard (*Zootoca vivipara*) and adder (*Vipera berus*) within 2km of the site. The closest record was for slow worm and grass snake both recorded in 2014 approximately 460m north of the survey area.
- 3.13 Widespread reptiles typically favour a mosaic of habitats including rough grassland, scrub and tall ruderal vegetation that provide a structural diversity to enable basking, foraging and hibernating. The site was dominated by dense woodland with a well maintained amenity border which were not considered to provide suitable habitat for reptiles.
- 3.14 Overall the site was considered to provide **negligible/low** potential for reptiles.

Great Crested Newts

- 3.15 The data search returned a single recent (post 2004) record for great crested newt (*Triturus cristatus*) within 2km of the site. This was located approximately 1.3km north west of the survey area in 2016.

- 3.16 There were no on-site ponds. There was one pond located within 500m of the development boundary, this was within the wider surrounds of the Birling Manor Estate located 125m south of the survey area.
- 3.17 The survey area was discrete in size and nature with more optimal habitats in the surrounding landscape. The pond is not connected via any suitable habitat due to the presence of a wall that follows the access track east through the northern extent of the survey area and encompasses the majority of Birling Manor Estate, creating a barrier to dispersal.
- 3.18 Overall, the site was considered to provide **negligible** potential for great crested newts.

Bats

- 3.19 The data search returned recent records (post 2004) for six different species of bat within 2km of the site, including whiskered bat (*Myotis mystacinus*), whiskered/Brandt's (*Myotis mystacinus/brandtii*), natterers (*Myotis nattereri*), common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*) and brown long-eared bat (*Plecotus auritus*).
- 3.20 Records included hibernacula and unspecified roosts. The closest records for bats were from 2010 for common pipistrelle and natterers both located approximately 1.3km south east of the site.
- 3.21 The on-site trees were not considered to provide any potential for roosting bats due to their condition and age providing no potential roosting features.
- 3.22 The hedgerow, woodland were considered to provide suitable foraging and commuting habitat for bats. However, these areas are discrete in nature and considered insignificant when compared to habitats within the wider surrounds.
- 3.23 Overall the site was considered to provide **negligible** potential for roosting bats and **low** potential for foraging bats.

Birds

- 3.24 A number of Red or Amber listed Birds of Conservation Concern¹ (BoCC) and notable² bird species were returned by the data search and may utilise habitats within the site. Species recorded include starling (*Sturnus vulgaris*), house sparrow (*Passer domesticus*), lesser spotted woodpecker (*Dendrocopos minor*) and yellow hammer (*Emberiza citrinella*).
- 3.25 The on-site hedgerow and woodland provides suitable nesting habitat for a range of bird species (Refer to Target Note 2 on the Habitat Map in Appendix B).
- 3.26 Overall the site was considered to provide **moderate** potential for breeding birds.

¹ Birds of Conservation Concern status is prioritised into high concern (Red), medium concern (Amber) and low concern (Green) (Eaton et al, 2009). Red-list species are those that are globally threatened according to the IUCN criteria; those whose population or range has declined rapidly in recent years; and those that have declined historically and have not shown a substantial recent recovery. Amber-list species are those with an unfavourable conservation status in Europe; those whose population or range has declined moderately in recent years; those whose population has declined historically but made a substantial recent recovery; rare breeders; and those with internationally important or localised populations. Green-list species are those that fulfil none of the criteria.

² Notable Birds are based on a list of birds that are particularly scarce or vulnerable either at national or a regional level. The majority of these bird species are designated as Schedule 1 species, under the Wildlife and Countryside Act 1981 (as amended), or listed as red or amber-listed BoCC.

Badger

- 3.27 Records for this species are kept confidentially and were not returned by the data search.
- 3.28 During the survey no setts or secondary signs of badgers such as footprints or hairs were observed. However, some mammal pathways were noted throughout the site. Some small excavations were identified along the banked section of hedgerow, however these contained evidence of rabbit activity and were not considered to be large enough to be used by badger.
- 3.29 The habitats within the site did offer foraging and commuting habitat within the woodland area with connectivity to off-site areas of grassland which may offer sett building opportunities in the wider surrounds, however the on-site topography offered limited potential for sett building. However, the size of the site and the busy nature of the driveway and surrounding houses are considered to reduce the likelihood that badgers will utilise these areas on a regular basis.
- 3.30 Due to the presence of mammal pathways in the site, the potential for badgers to pass through the site cannot be ruled out and individuals may be using the site for foraging and commuting.
- 3.31 The site was considered to provide **moderate** potential for badger.

Hazel Dormouse

- 3.32 The data search did not return any records for dormouse (*Muscardinus avellanarius*) within 2km of the site.
- 3.33 Dormice are largely arboreal and rely on blocks of diverse woodland and interconnecting hedgerows for survival. This species rarely descend to the ground except to hibernate over winter months at the base of trees. Dormice also favour a range of plants which provide a food source throughout the year. Favoured species include an abundance of hazel (*Corylus avellana*) and honeysuckle (*Lonicera* sp.) together with frequently occurring oak (*Quercus* sp.), hawthorn and bramble amongst other species.
- 3.34 The on-site hedgerow and woodland were considered to provide sub-optimal habitat for dormice due to the limited structural and species diversity and connectivity between the site and extensive areas of suitable off-site habitat.
- 3.35 Overall the site was considered to have **negligible** potential to support hazel dormouse.

Invasive Plants

- 3.36 The data report returned records of Invasive non-native species (INNS) that are listed on Schedule 9 of the Wildlife and Countryside Act, 1981 (as amended) that could utilise onsite habitats.
- 3.37 Species included Wall cotoneaster (*Cotoneaster horizontalis*), montbretia (*Crocsmia pottssii x aurea*) and Japanese knotweed (*Fallopia japonica*).
- 3.38 No invasive plant species were observed on-site at the time of survey.

4. Evaluation

- 4.1 On the basis of the information available from the habitat survey and desk study, the site has been evaluated in terms of its potential for biodiversity, support of protected species and habitats, and the contribution the area makes as part of the wider landscape. The nature conservation value of the site has been assessed following standard criteria developed by CIEEM (2006) and in accordance with BS 24040:2013. This is provided below.
- 4.2 The biodiversity value of protected species within the site is a preliminary evaluation based upon the desk study records, habitat suitability and the conservation status of the species in question. It should be noted that where European Protected Species (EPS) or species of Principle Importance for the Conservation of Biodiversity are present on-site they may be valued at a lower level/scale where it is considered likely that populations would not be of sufficient importance to justify designation at a higher level. However, regardless of their biodiversity value, such species are still subject to national and/or European legislation.
- 4.3 Key aspects of relevant planning policy regarding conservation, including an explanation of species referred to as being of 'Principal Importance for Conservation of Biodiversity' and European Protected Species and habitats, are provided in the Legislation section in Appendix C.

Geographic Evaluation

Features of International Importance

- 4.4 Features of International Importance are principally sites covered by international legislation or conventions. The Conservation of Habitats and Species Regulations 2010 (as amended) implements the Natural Habitats and Wild Fauna and Flora (92/43/EC) (Habitats Directive) in England and Wales. The Regulations mainly deal with the protection of sites with certain habitats and populations of species that are important for nature conservation in a European context, i.e. Special Areas of Conservation (SAC's) and Special Protection Areas (SPA's).
- 4.5 The site is not subject to any international statutory nature conservation designations. The closest site of International Importance is Pevensy Levels Special Area of Conservation (SAC) located approximately 11.7km to the east. The site does not provide any supporting habitat for this designated site.

Features of National Importance

- 4.6 Features of national importance include SSSIs which are designated under the Wildlife and Countryside Act 1981 (as amended). The site is not subject to any national statutory nature conservation designations and it is not considered that any habitats or populations or assemblages of species within the site would meet the criteria for the designation of SSSIs at an appropriate geographic level³.

³ JNCC Guidelines for selection of biological SSSIs (see <http://jncc.defra.gov.uk/page-2303#download>).

- 4.7 The closest site of national importance for nature conservation Seaford to beachy Head SSSI located 130m to the west. The site does not provide any supporting habitat for these statutory designated sites.

Features of Regional (i.e. Sussex) Importance

- 4.8 The site does not include any features of value at this level neither is it likely to be selected as a Local Wildlife Site based on the results of the current survey.

Features of District Importance

- 4.9 The site is relatively small and does not support any features that were considered to be of value at this level.

Features of local (i.e. East Dean) Importance

- 4.10 The site is relatively small and does not support any features that were considered to be of value at this level.

Features of Value Immediate Vicinity (c. 250m) of the project

- 4.11 The woodland and hedgerow is considered to provide some potential for breeding birds, however it is not considered that this species group would utilise the site in significant numbers. The site is also considered to provide some potential for foraging bats and badgers.

Summary

- 4.12 Overall on the basis of the survey results and the above criteria, habitats within the site are considered to be of ecological value in the immediate vicinity only. The site provides suitable habitat to support protected species including breeding birds and foraging badgers and bats. However, populations of these are unlikely to be significant at a district level.

Local Plan Evaluation

- 4.13 It is considered that the Wealden Core Strategy Local Plan (2013) and the Statutory Wealden District Council Local Plan contain the following nature conservation policies relevant to the site. A summary of these policies is provided below. The full text of the relevant policies is contained in the Legislation section in Appendix C and this should also be referred to.

Wealden Core Strategy Local Plan (2013)

- WCS12 Biodiversity: The Council will seek to prevent a net loss of biodiversity, ensure a comprehensive network of habitats, ensure habitats, biodiversity features and ecological networks are maintained, restored, enhanced and where possible created to achieve a net gain in biodiversity. Proposals should serve to retain and enhance boundary features in order to maintain wildlife corridors and habitat connectivity.

- WCS13 Green Infrastructure: Existing green infrastructure will be protected, improved and enhanced by the implementation of a Green Infrastructure Strategy, ensuring a multifunctional, accessible network which maintains and improves biodiversity and landscape character, increases opportunities for healthy living and contributes to healthy ecosystems and climate change objectives. Proposals should serve to enhance boundary features in order to provide an effective green corridor for wildlife post development.

Statutory Wealden District Council Local Plan (2007)

- Policy EN8: Development within the Low Weald will only be permitted if it conserves the low rolling agricultural character of the landscape. Proposals should serve to retain and enhance boundary features and the design should be in keeping with the character of the area. Landscape planting should incorporate a high proportion of native species and local stock used wherever possible.
- Policy EN14: Development within the Low Weald will only be permitted if it conserves the low rolling agricultural character of the landscape. Proposals should serve to retain and enhance boundary features and the design should be in keeping with the character of the area. Landscape planting should incorporate a high proportion of native species and local stock used wherever possible.
- Policy EN15: The Council will seek to safeguard designated nature conservation sites by resisting development or land use changes which would be likely to adversely affect their nature conservation value. The weight to be afforded to nature conservation interests will have regard to their status.
- Policy EN18: The Council will resist the loss of open areas and undeveloped gaps within settlements which contribute to the character or amenities of the locality. Development should serve to increase the biodiversity value of the site post works.

5. Conclusions and Recommendations

Conclusions

- 5.1 The site is located at Birling Manor adjacent to Birling Gap Road approximately 880m south of the A259. The site comprised woodland, amenity grassland, two sections of species poor hedgerow and hardstanding in the form of the existing driveway. Gilbert Drive borders the site to the west. Agricultural fields, woodland blocks and hedgerows, together with additional agricultural buildings associated with the wider area of Birling Manor and East Dean bound the site in all directions.
- 5.2 The National Grid Reference for the centre of the site is TV557 970. The survey area extended over approximately 0.17 hectares (ha).
- 5.3 It is understood that the proposals are for the re-alignment of the existing driveway into a small copse of trees adjacent to Birling Gap Road, East Dean.
- 5.4 The site is not subject to any statutory or non-statutory designations. The closest statutory site is the Seaford to Beachy Head Site of Special Scientific Interest (SSSI) located approximately 130m west at its closest point.
- 5.5 On the basis of the survey results and the above criteria, habitats within the site are considered to be of ecological value in the immediate vicinity only. The site provides suitable habitat to support protected species including breeding birds and foraging badgers and bats. However, populations of these are unlikely to be significant at a district level.
- 5.6 It is considered that precautionary working methods to vegetation clearance in respect to breeding birds is sufficient to safe guard this species group during works. A precautionary approach in respect to badgers is also recommended throughout works in order to safeguard this species.
- 5.7 As the proposed works are not planned to be illuminate beyond the current levels it is not considered that the works will have a negative effect on foraging bats and no constraints are considered in respect to this species group.
- 5.8 Details regarding precautionary working practices together with habitat enhancement measures are provided below.

Recommendations

Breeding Birds

- 5.9 The on-site scattered trees and hedgerow provide suitable nesting habitat for a range of bird species. All nesting birds are protected under the Wildlife and Countryside Act 1981 (as amended).

- 5.10 In order to avoid any potential impact on breeding birds, the clearance of any trees or hedgerows should be undertaken outside the main bird nesting season which runs from March to August inclusive⁴, with clearance works possible between September and February. Where this is not possible, an ecologist would need to check the vegetation for active nests and signs of bird breeding activity.
- 5.11 In the event that a nest is found, an exclusion zone around the nest would be established. Works would have to cease within this buffer area until the young birds have fledged.

Badgers

- 5.12 Due to the potential of badgers to be passing through the site, the potential for this species should be taken into account throughout ground works. All trenches must be covered at night or a ramp installed to ensure any badgers (and other animals) can escape if they enter the trench. The ramp should be of sufficient size to ensure badgers can escape. A thick wooden plank or similar could be used. Advice can be sought from the project ecologist if required. All materials should be stored in a safe place over night with the lids tightly fitted.

Bats and Lighting

- 5.13 Different species of bat have been found to react differently to night-time lighting however research has found that generally, all species of bats are sensitive to artificial lighting and that excessive lighting can delay bats from emerging, thus shortening the time available for foraging, as well as causing individuals to move away from suitable foraging grounds or roost sites, to alternative dark areas (Jones, 2000).
- 5.14 Currently the majority of the site is not lit at night, particularly around the site boundaries and linear features. New development provides the opportunity to enhance the site's value for foraging bats and to minimise indirect impacts from lighting associated with the new development. This can be achieved by following accepted best practice (Institute of Ecology and Environmental Management 2006, Institute of Lighting Engineers 2009):
- The level of artificial lighting including flood lighting should be kept to a minimum, particularly around the site boundaries and near to hedgerows and tree lines;
 - low pressure sodium lights are a preferred option to high pressure sodium or mercury lamps, and lights should be directed low with minimal light spillage;
 - ideally, some parts of the site (boundary habitats) should be kept dark, preferably at bat emergence (0-1 hour after sunset) and during peak bat activity periods (e.g. 1.5 hours after sunset and 1.5 hours before sunrise); and
 - artificial lighting should not directly illuminate any potential bat commuting areas such as hedgerows and treelines. Similarly, any newly planted linear features or buffer areas around the site boundary should not be directly lit.

⁴ It should be noted that this is the main breeding period. Breeding activity may occur outside this period (depending on the particular species and geographical location of the site) and thus due care and attention should be given when undertaking potentially disturbing works at any time of year.

Habitat Enhancement

- 5.15 New development offers the opportunity for habitat enhancement in accordance with national and local planning policy and some recommendations are included below.

Bird and Bat Boxes and Bricks

- 5.16 Additional bird nesting and bat roosting provision could be incorporated into new design proposals. These could be installed on existing trees to be retained. Some recommendations are made below as a guide.
- 5.17 Bird boxes could include external bird boxes, attached to trees or external walls could be included post works which could include the 1MR Schwegler design for a range of common garden birds.
- 5.18 Bat roosting opportunities could be provided through tree mounted bat boxes. There are a range of bat boxes available and these can be selected to suit the development and bat species in the locality.
- 5.19 Bird and bat boxes should be installed at appropriate locations ideally with south-east or south-west facing aspects at least 3m from ground level. If installed on the building, these should ideally be positioned directly below the eaves.

Compensatory Planting


- 5.20 Additional tree and shrub planting could be incorporated into the landscape proposals to compensate for any removal to facilitate the works. Planting should include a high proportion of native species and be of local provenance where possible. These should be carefully selected to ensure they contain species suitable for the area. Some species of known wildlife value are listed in Appendix E.

Other

- 5.21 It is recommended that an update habitat survey is undertaken if more than 12 months have elapsed between the survey and the point at which any development decisions have been made at the site.

6. References

- Bird Brick Houses Ltd (2013). *Homes for bats and birds* [on-line]. Available from: <http://birdbrickhouses.co.uk/> [Accessed on 09/08/2017].
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7. Glossary of Terms


ASSI	Area of Special Scientific Interest
BAP	Biodiversity Action Plan
Birds Directive	Council Directive 79/409/EEC on the conservation of wild birds
BoCC	Birds of Conservation Concern
BRC	Biological Records Centre
BTO	British Trust for Ornithology
CBD	Convention on Biological Diversity
CCW	Countryside Council for Wales
CEH	Centre for Ecology and Hydrology
CIEEM	Chartered Institute of Ecology and Environmental Management
CRoW Act 2000	Countryside and Rights of Way Act 2000
cSAC	Candidate Special Area of Conservation
CWS	County Wildlife Site
DAFOR	Plant abundance scale used to score plants recorded within a surveyed area. Values are: Dominant, abundant, frequent, occasional, rare.
Defra	Department for Environment, Food and Rural Affairs
DfCLG	Department for Communities and Local Government
DoE	Department of the Environment (now Defra)
dSAC	Draft Special Area of Conservation
DWS	District Wildlife Site
EC	European Commission; also European Community with reference to the Habitats Directive
EN	English Nature (now Natural England)
EPS	European Protected Species

EPSM	European Protected Species Mitigation
EU	European Union
FCS	Favourable Conservation Status
GB	Great Britain (England, Scotland and Wales, excluding Northern Ireland)
Habitats Directive	Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora
HMSO	Her Majesty's Stationery Office
IDD	International Designations Database
IUCN	The World Conservation Union (International Union for the Conservation of Nature)
IUCN	International Union for Conservation of Nature
JNCC	Joint Nature Conservation Committee
Lekking	Where males assemble during the mating season to engage in competitive displays in order to attract females.
LNCS	Local Nature Conservation Sites
LNR	Local Nature Reserve
LRBI	Lowland Raised Bog Inventory
LWS	Local Wildlife Site
MAGIC	Multi-Agency Geographical Information for the Countryside
NCC	Nature Conservancy Council
NERC Act 2006	The Natural Environment and Rural Communities Act 2006
NGO	Non-governmental organisation
NI	Northern Ireland
NNR	National Nature Reserve
Nomenclature	The system of devising of names for plants
NPPF	National Planning Policy Framework
NVC	National Vegetation Classification
ODPM	Office of the Deputy Prime Minister

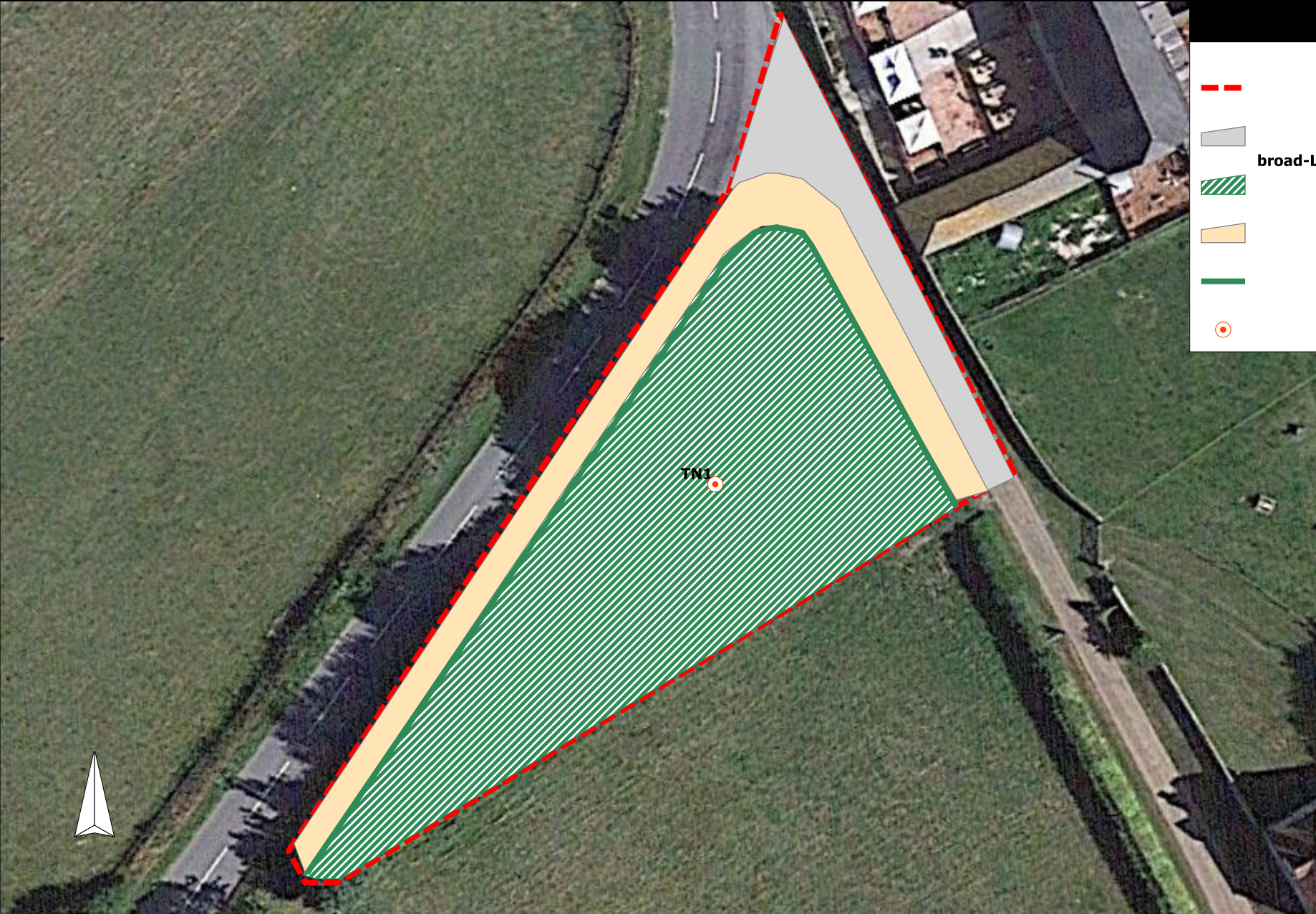
OS	Ordnance Survey
PCAIWCG	Property Care Association Invasive Weeds Control Group
PEA	Preliminary Ecological Appraisal- formerly referred to as a Phase 1 Habitat Survey
PPG	Planning Policy Guidance
PPS	Planning Policy Statement
pSAC	Possible Special Area of Conservation
SAC	Special Area of Conservation
SBI	Sites of Biological Importance
SCI	Site of Community Importance
SEA	Strategic Environmental Assessment
SINC	Sites of Importance for Nature Conservation
SNCI	Site of Nature Conservation Importance
SNH	Scottish Nature Heritage
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
UK	United Kingdom (England, Scotland, Wales and Northern Ireland)

Appendix A
Target Notes and Photographs

Target Notes and Photographs

Target Note (TN)	Feature	Photograph of Feature
1	Photograph 1: A view south east of the entire survey area, showing discrete size and nature.	
2	Photograph 2: Looking south west along the northern aspect of the survey area showing breeding bird potential within hedgerow and trees.	
3	Photograph 3: A view of the internal areas of the site.	

Appendix B
Habitat Map



Legend	
	Survey Area Lines
	Hardstanding Areas
	broad-Leaved Plantation Woodland Areas
	Amenity Grassland Areas
	Native Hedgerow Lines
	Target Note Points

Figure 1: Birling Manor Habitat Survey Map

Drawn by: JWK
 On the: 8/17/2017
 Not to Scale
 Ref: 7462



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Appendix C Legislation

Legislation

This section contains information pertaining to the legislation and planning policy applicable in Britain. This information is not applicable to Northern Ireland, the Republic of Ireland the Isle of Man or the Channel Islands. Information contained in the following appendix is provided for guidance only.

Species

The objective of the EC Habitats Directive⁵ is to conserve plants and animals which are considered to be rare across Europe. The Directive is transposed into UK law by The Conservation of Habitats and Species Regulations 2010 (as amended) (formerly The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) and The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended).

The Wildlife and Countryside Act 1981 (as amended) implements the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and also implements the obligations set out for species protection from the Council Directive 2009/147/EC (formerly 79/409/EEC) on the Conservation of Wild Birds (EC Birds Directive) in Great Britain.

Various amendments have been made since the Wildlife & Countryside Act came into force in 1981. Further details pertaining to alterations of the Act can be found on the following website: www.opsi.gov.uk. Key amendments have been made through the Countryside and Rights of Way (CRoW) Act (2000) and Nature Conservation (Scotland) Act 2004.

There are a number of other legislative Acts affording protection to species and habitats. These include:

- 🌿 Countryside and Rights of Way (CRoW) Act 2000
- 🌿 Deer Act 1991
- 🌿 Natural Environment & Rural Communities (NERC) Act 2006
- 🌿 Protection of Badgers Act 1992
- 🌿 Wild Mammals (Protection) Act 1996

Badger

Badgers and their setts are protected under the Protection of Badgers Act (1992), which consolidated and added to the previous Badger Acts of 1973 and 1991. Under this legislation it is an offence to:

- 🌿 cruelly ill-treat a badger, including use of tongs and digging;
- 🌿 intentionally or recklessly cause a dog to enter a badger sett;
- 🌿 intentionally or recklessly damage, destroy or obstruct access to a badger sett⁶ or any part thereof;
- 🌿 intentionally or recklessly disturb⁷ a badger when it is occupying a badger sett;

⁵ Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora.

⁶ A badger sett is defined in the legislation as "any structure or place which displays signs indicating current use by a badger". This includes seasonally used setts. Natural England (2009) have issued guidance on what is likely to constitute current use of a badger sett: www.naturalengland.org.uk/Images/WMLG17_tcm6-11815.pdf

- 🌿 possess or control a dead badger or any part of a badger;
- 🌿 sell or offers for sale, possesses or has under his control, a live badger; and
- 🌿 wilfully kill, injure, take, or attempt to kill, injure or take a badger.

A Development Licence will be required from Natural England for any development works affecting an active badger sett, or to disturb badgers while individuals are occupying the sett. Depending on the nature of the works and the specifics of the sett, badgers could be disturbed by work near the sett even if there is no direct interference or damage to the sett itself. Natural England has issued guidelines on what constitutes a licensable activity. There is no provision in law for the capture of badgers for development purposes and therefore it is not possible to obtain a licence to translocate badgers from one area to another.

Bats

Bats are protected under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended). This act protects individuals from:

- 🌿 intentional or reckless disturbance (at any level);
- 🌿 intentional or reckless obstruction of access to any place of shelter or protection; and
- 🌿 selling, offering or exposing for sale, possession or transporting for purpose of sale

In addition, all species of bat are fully protected under The Conservation of Habitats and Species Regulations 2010 (as amended) through their inclusion on Schedule 2. Regulation 41 prohibits:

- 🌿 deliberate killing, injuring or capturing of Schedule 2 species (all bats);
- 🌿 deliberate disturbance of bat species as to impair their ability:
 - (i) to survive, breed, or reproduce, or to rear or nurture young; and
 - (ii) to hibernate or migrate.
- 🌿 deliberate disturbance of bat species as to affect significantly the local distribution or abundance of the species;
- 🌿 damage or destruction of a breeding site or resting place; and
- 🌿 keeping, transporting, selling, exchanging or offering for sale whether live or dead or of any part thereof.

A European Protected Species Mitigation (EPSM) Licence issued by Natural England will be required for works liable to affect a bat roost or for operations likely to result in a level of disturbance which might impair their ability to undertake activities listed above. A licence is required to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and monitored.

⁷ For guidance on what constitutes disturbance and other licensing queries, see Natural England (2007) Badgers & Development: A Guide to Best Practice and Licensing. www.naturalengland.org.uk/Images/badgers-dev-guidance_tcm6-4057.pdf, Natural England (2009) Interpretation of 'Disturbance' in relation to badgers occupying a sett www.naturalengland.org.uk/Images/WMLG16_tcm6-11814.pdf, Scottish Natural Heritage (2002) Badgers & Development. www.snh.org.uk/publications/online/wildlife/badgersanddevelopment/default.asp and Countryside Council for Wales (undated) Badgers: A Guide for Developers. www.ccw.gov.uk.

Breeding Birds

Under the Wildlife & Countryside Act, 1981 (as amended), a wild bird is defined as any bird of a species that is resident in or is a visitor to the European Territory of any member state in a wild state. Game birds, however, are not included in this definition (except for limited parts of the Act). They are covered by the Games Acts, which fully protect them during the closed season.

Under the Wildlife & Countryside Act, 1981 (as amended), all birds, their nests and eggs are protected under Sections 1-8 of the Act and it is an offence, with certain exceptions, to:

- ☞ intentionally (or recklessly in Scotland) kill, injure or take any wild bird;
- ☞ intentionally (or recklessly in Scotland) take, damage or destroy (or, in Scotland, otherwise interfere with) the nest of any wild bird while it is in use or being built
- ☞ intentionally take or destroy the egg of any wild bird;
- ☞ have in one's possession or control any wild bird, dead or alive, or any part of a wild bird, which has been taken in contravention of the Act;
- ☞ have in one's possession or control any egg or part of an egg which has been taken in contravention of the Act;
- ☞ use traps or similar items to kill, injure or take wild birds;
- ☞ have in one's possession or control any bird (dead or alive) unless registered, and in most cases ringed, in accordance with the Secretary of State's regulations; and
- ☞ in Scotland only, intentionally or recklessly obstruct or prevent any wild bird from using its nest.

Certain rare species receive additional special protection under Schedule 1 of the Act and Annex 1 of the European Community Directive on the Conservation of Wild Birds (2009/147/EC). This affords them protection against:

- ☞ intentional or reckless disturbance while it is building a nest or is in, on or near a nest containing eggs or young;
- ☞ intentional or reckless disturbance of dependent young of such a bird;
- ☞ in Scotland only, intentional or reckless disturbance whilst lekking; and
- ☞ in Scotland only, intentional or reckless harassment.

The British Trust for Ornithology (BTO) has a list of birds that are Species of Conservation Concern. These birds are not legally protected but where they are found on site they should be given planning consideration. The criteria for birds listed as amber (medium conservation concern) include:

- ☞ historical population decline during 1800-1995, but recovering: population has more than doubled over last 25 years;
- ☞ moderate (25-49%) decline in UK breeding population over last 25 years;
- ☞ moderate (25-49%) contraction of UK breeding range over last 25 years;
- ☞ moderate (25-49%) decline in UK non-breeding population over last 25 years;
- ☞ species with unfavourable conservation status in Europe (Species of conservation Concern);
- ☞ five year mean of breeding pairs in the UK;
- ☞ ≥50% of UK breeding population in 10 or fewer sites.

- 🌿 ≥50% of UK non-breeding population in 10 or fewer sites;
- 🌿 ≥20% of European breeding population in UK; and
- 🌿 ≥20% of NW European (wildfowl), East Atlantic Flyway (waders) or European (others) non breeding populations in UK.

Hazel Dormouse

The hazel dormouse (*Muscardinus avellanarius*) is fully protected under The Conservation of Habitats and Species Regulations 2010 through its inclusion on Schedule 2. Regulation 41 prohibits:

- 🌿 deliberate killing, injuring or capturing;
- 🌿 deliberate disturbance as to impair its ability:
 - (i) to survive, breed, or reproduce, or to rear or nurture young; and
 - (ii) to hibernate or migrate.
- 🌿 deliberate disturbance as to affect significantly the local distribution or abundance of the species;
- 🌿 damage or destruction of a breeding site or resting place; and
- 🌿 keeping, transporting, selling, exchanging or offering for sale whether live or dead or of any part of this species.

The hazel dormouse is also currently protected under the Wildlife and Countryside Act 1981 (as amended) through its inclusion on Schedule 5. Under this Act, this species is additionally protected from:

- 🌿 intentional or reckless disturbance;
- 🌿 intentional or reckless obstruction of access to any place of shelter or protection; and
- 🌿 selling, offering or exposing for sale, possession or transporting for purpose of sale.

A European Protected Species Mitigation (EPSM) Licence issued by Natural England will be required for works liable to affect dormouse breeding or resting places (N.B. this is usually taken to mean dormouse 'habitat') or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above. The licence will allow derogation from the relevant legislation but will also to enable appropriate mitigation measures to be put in place and monitored.

Herpetofauna (Reptiles and Amphibians)

The following species receive full protection under the Conservation of Habitats and Species Regulations 2010 (as amended) through their inclusion on Schedule 2.

- 🌿 sand lizard (*Lacerta agilis*);
- 🌿 smooth snake (*Coronella austriaca*);
- 🌿 natterjack toad (*Epidalea calamita*);
- 🌿 great crested newt (*Triturus cristatus*); and
- 🌿 pool frog (*Pelophylax lessonae*).

Under this legislation, Regulation 41 prohibits:

- 🌿 deliberate killing, injuring or capturing of species listed on Schedule 2;
- 🌿 deliberate disturbance of any Schedule 2 species as to impair their ability:
 - (i) to survive, breed, or reproduce, or to rear or nurture young; and
 - (ii) to hibernate or migrate.
- 🌿 deliberate disturbance of any Schedule 2 species as to affect significantly the local distribution or abundance of the species;
- 🌿 deliberate taking or destroying of the eggs of a Schedule 2 species;
- 🌿 damage or destruction of a breeding site or resting place; and
- 🌿 keeping, transporting, selling, exchanging or offering for sale whether live or dead or of any part of a species.

With the exception of the pool frog, these species are also currently listed on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Under this Act, they are additionally protected from:

- 🌿 intentional or reckless disturbance (at any level);
- 🌿 intentional or reckless obstruction of access to any place of shelter or protection; and
- 🌿 selling, offering or exposing for sale, possession or transporting for purpose of sale.

Other native species of herpetofauna are protected solely under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended). These species include:

- 🌿 adder (*Vipera berus*);
- 🌿 grass snake (*Natrix natrix*);
- 🌿 common lizard (*Zootoca vivipara*); and
- 🌿 slow-worm (*Anguis fragilis*).

Under this legislation, for these species it is prohibited under Section 9(1) & (5) to:

- 🌿 intentionally (or recklessly in Scotland) kill or injure these species
- 🌿 sell, offer or expose for sale, possess or transport for purpose of sale these species, or any part thereof.

The following species are listed in respect to Section 9(5) of Schedule 5 of the Wildlife & Countryside Act 1981 (as amended) which only affords them protection against sale, offering or exposing for sale, possession or transport for the purpose of sale:

- 🌿 common frog (*Rana temporaria*);
- 🌿 common toad (*Bufo bufo*);
- 🌿 smooth newt (*Lissotriton vulgaris*); and
- 🌿 palmate newt (*L. helveticus*).

Water Vole

The water vole (*Arvicola amphibius*) (=terrestris) is fully protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). This makes it an offence to:

- 🌿 intentionally kill, injure or take (capture) this species;
- 🌿 intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection;
- 🌿 intentionally or recklessly disturb water voles while they are occupying a structure or place used for shelter or protection; and
- 🌿 sell, offer or expose for sale, or have in his possession or transport for the purpose of sale, any live or dead water vole or part of this species.

Where development works are liable to affect habitats known to support water voles, Natural England must be consulted. All alternative design options must have been explored and communicated to Natural England in order to demonstrate that works have tried to avoid contravening the legislation e.g. the use of alternative sites, appropriate timing of works to avoid times of the year in which water voles are most vulnerable etc. Conservation licences for the capture and translocation of water voles may be issued by Natural England for the purpose of development activities if it can be shown that the activity has been properly planned and executed and thereby contributes to the conservation of the population.

Otter

Otters (*Lutra lutra*) are fully protected under The Conservation of Habitats and Species Regulations 2010 through their inclusion on Schedule 2. Regulation 41 prohibits:

- 🌿 deliberate killing, injuring or capturing of otters
- 🌿 deliberate disturbance as to impair their ability:
 - (i) to survive, breed, or reproduce, or to rear or nurture young; and
 - (ii) to hibernate or migrate.
- 🌿 deliberate disturbance as to affect significantly the local distribution or abundance of the species;
- 🌿 damage or destruction of a breeding site or resting place; and
- 🌿 keeping, transporting, selling, exchanging or offering for sale whether live or dead or of any part of this species.

Otters also receive protection under the Wildlife and Countryside Act 1981 (as amended) through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- 🌿 intentional or reckless disturbance (at any level);
- 🌿 intentional or reckless obstruction of access to any place of shelter or protection; and
- 🌿 selling, offering or exposing for sale, possession or transporting for purpose of sale.

A European Protected Species Mitigation (EPSM) Licence issued by Natural England will be required for works liable to affect breeding or resting places or for activities likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above. The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and monitored.

Red Squirrel

The red squirrel (*Sciurus vulgaris*) is fully protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). This makes it an offence to:

- intentionally (or recklessly in Scotland) kill, injure or take (capture) red squirrels;
- intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection;
- intentionally or recklessly disturb this species while they are occupying a structure or place used for shelter; and
- sell, offer or expose for sale, or have in his possession or transport for the purpose of sale, any live or dead red squirrel or part of this species.

White Clawed Crayfish

The white clawed crayfish (*Austropotamobius pallipes*) receives partial protection under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended). This species is protected under Sections 9(1) and 9(5), making it an offence to:

- intentionally take/capture white-clawed crayfish; and
- sell, offer or expose for sale, have in possession or transport for the purpose of sale, any live or dead white clawed crayfish or part of this species.

A conservation licence for the capture and translocation of crayfish may be issued for the purpose of development activities if it can be demonstrated that the activity has been carefully planned and this species considered. The activity must also demonstrate that it contributes to the conservation of the population.

Wild Mammals

All wild mammals are protected against intentional acts of cruelty under the Wild Mammals (Protection) Act 1996. Under this legislation it is an offence to:

- mutilate, kick, beat, nail or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.

To avoid possible contravention of this legislation, due care and attention should be taken when carrying out works that have the potential to impact any wild mammal as described above.

Plants

Wild plants are protected under the Wildlife and Countryside Act 1981 (as amended) which makes it an offence for an 'unauthorised' person to intentionally (or recklessly in Scotland) uproot wild plants. An authorised person can be the owner of the land on which the action is taken, or anybody authorised by them.

Some rare plant species also receive full protection under Schedule 8 of the Wildlife and Countryside Act 1981 (as amended). This prohibits:

- intentionally (or recklessly in Scotland) picking, uprooting or destruction of any wild Schedule 8 species (or seed or spore attached to any such wild plant in Scotland only); and
- selling, offering or exposing for sale, or possessing or transporting for the purpose of sale, any wild live or dead Schedule 8 plant species or parts.

In addition to the legislation outlined above, several plant species are fully protected under Schedule 5 of The Conservation of Habitats and Species Regulations 2010. Regulation 45 makes it an offence to:

- deliberately pick, collect or destroy a wild Schedule 5 species; and
- be in possession of, or control, transport, sell or exchange any wild live or dead Schedule 5 species or anything derived from it.

A European Protected Species Mitigation (EPSM) Licence issued by Natural England will be required for works liable to affect species of plant listed under The Conservation of Habitats and Species Regulations 2010.

Invasive Plant Species

Certain plants are listed on Part II of Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) in respect to Section 14(2). Species include:

- Japanese knotweed (*Fallopia japonica*);
- giant hogweed (*Heracleum mantegazzianum*);
- Himalayan balsam (*Impatiens glandulifera*);
- certain species of rhododendron (*Rhododendron* sp.); and
- certain species of cotoneaster (*Cotoneaster* sp.).

Species listed are non-natives whose establishment or spread in the wild may be detrimental to native wildlife. Inclusion on Part II of Schedule 9 therefore makes it an offence to:

- plant or otherwise cause these species to grow in the wild.

This legislation makes it an offence to cause species listed to grow in the wild. Therefore, if they are present on site and development activities have the potential to cause the further spread of these species to new areas, it will be necessary to ensure appropriate measures are in place to prevent this.

Habitats

International Statutory Designations

- Special Protection Areas (SPAs):** Terrestrial SPA's are afforded protection by The Conservation (Natural Habitats, &c. Regulations 1994 (as amended) an offshore SPA's are afforded protection under The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended). SPAs are designated under the EC Birds Directive (Council Directive 2009/147/EC on the Conservation of Wild Birds). SPAs are areas recognised as important habitat for rare and migratory birds within the European Union (rare birds as listed on Annex I of the Directive).
- Special Areas of Conservation (SACs):** These areas are designated under the EC Habitats Directive (Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora), designated for the habitats and (non-bird) species listed on Annexes I and II to the Directive under the same regulations as detailed for SPA's.

- 🌿 Ramsar sites: These areas are wetlands designated under the Convention on Wetlands of International Importance (1971). Wetlands can include areas of marsh, fen, water or peatland and may be natural or artificial, permanent or temporary. Ramsar sites are underpinned through prior notification as Sites of Special Scientific Interest (SSSIs) and as such receive statutory protection under the Wildlife & Countryside Act 1981 (as amended) with further protection provided by the Countryside and Rights of Way (CROW) Act 2000.

National Statutory Designations

- 🌿 Sites of Special Scientific Interest (SSSIs): These sites are designated by the countryside agencies (for example Natural England) under the Wildlife & Countryside Act 1981 (as amended). Prior to 1981 these were designated under the National Parks and Access to the Countryside Act 1949. Improved mechanisms for the protection of SSSIs have also been introduced by the Countryside and Rights of Way Act 2000 (in England and Wales).
- 🌿 National Nature Reserves: These sites are also designated by the countryside agencies under the Wildlife & Countryside Act 1981 (as amended).

Local Statutory Designations

- 🌿 1949 Local Nature Reserves (LNRs): These sites are designated by local authorities under the National Parks and Access to the Countryside Act 1949. These are sites recognised for their wildlife or geological interest at a local level and are managed for nature conservation.

Non-Statutory Designations

- 🌿 Local Wildlife Sites: Areas of local conservation interest may be designated by local authorities. The terminology for these sites varies depending on the county. They can be called Sites of Nature Conservation Importance (SNCI's), Sites of Importance for Nature Conservation (SINCs), County Wildlife Sites (CWS), Listed Wildlife Sites (LWS), Local Nature Conservation Sites (LNCS), Sites of Biological Importance (SBIs). The designation criteria may vary between counties. Local Wildlife Sites are of material consideration when planning applications are being determined.
- 🌿 The Hedgerow Regulations 1997: These have been compiled to protect 'important' countryside hedgerows from damage or removal. A hedgerow is considered important if (a) has existed for 30 years or more; and (b) satisfies at least one of the criteria listed in Part II of Schedule 1 of the Regulations. Under the Regulations, it is against the law to remove or destroy certain hedgerows without permission from the local planning authority. Hedgerows covered by these regulations include those on or adjacent to common land, SSSIs (including all terrestrial SACs, NNRs and SPAs), LNRs, land used for agriculture or forestry and land used for the keeping or breeding of horses, ponies or donkeys.

National Planning Policy

- The National Planning Policy Framework (2012) replaces the former PPS9 document and emphasises the need for sustainable development. The Framework specifies the need for protection of designated sites and priority habitats and priority species. An emphasis is also made for the need for ecological networks through preservation, restoration and re-creation. The protection and recovery of priority species is also included as a requirement of planning policy. In determining a planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from adverse harm; appropriate mitigation or compensation measures are in place where significant harm cannot be avoided; opportunities to incorporate biodiversity in and around developments are encouraged; and planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

Local Planning Policy

The Wealden District Core Strategy Local Plan (2013) and the Statutory Wealden District Council Local Plan include the following Nature Conservation Policies that are relevant to the site.

Policy WCS12: Biodiversity

- 'In order to contribute to the biodiversity targets provided in the Sussex Biodiversity Action Plan the Council will prevent a net loss of biodiversity, ensure a comprehensive network of habitats, and work with partners to maximise opportunities to ensure habitats, biodiversity features and ecological networks are maintained, restored, enhanced and where possible created to achieve a net gain in biodiversity and sustain wildlife in both rural and urban areas.
- This will be achieved through the development and implementation of an integrated green network strategy. In accordance with Planning Policy Statement 9, please see page 49 'Working with the South Downs National Park Authority' and the reference to publication of the NPPF and cancellation of a number of Planning Policy Statements and Guidance Notes, there may be exceptional circumstances when compensatory measures for a net loss of biodiversity is required.
- Appropriate compensatory measures will be required to contribute to Wealden's overall biodiversity resource, and may include enhancement of Wealden's Biodiversity Opportunity Areas and other relevant Biodiversity Action Plan habitats, so that there is overall no net loss of biodiversity'.

WCS13: Green Infrastructure

- The District's existing network of green infrastructure will be protected, improved and enhanced by the implementation of a Green Infrastructure Strategy, ensuring a multifunctional, accessible network which maintains and improves biodiversity and landscape character, increases opportunities for healthy living and contributes to healthy ecosystems and climate change objectives.

- Development proposals will not be permitted which would result in the loss of existing open space or harm to Wealden's network of green spaces unless measures are incorporated within the development that will either mitigate the effects of development or alternative and suitable provision is made that is accessible, of good quality and value to its users, in an appropriate location, at an appropriate scale and nature and would positively contribute to the overall network of green space.
- All new residential development will be required to contribute to the green infrastructure network and where appropriate to make provision for new or enhancement of existing open space. Where the scale of development would be too small to make on-site provision, the Council will seek developer contributions either towards the improvement of existing open spaces or towards the provision of open space elsewhere.

Statutory Wealden District Council Local Plan (2007)

- Policy EN8: Development within the Low Weald will only be permitted if it conserves the low rolling agricultural character of the landscape. Proposals should serve to retain and enhance boundary features and the design should be in keeping with the character of the area. Landscape planting should incorporate a high proportion of native species and local stock used wherever possible.
- Policy EN14: In appropriate cases, the Council will require landscaping, including surface treatments, to be carried out as part of development proposals. Development proposals should seek to retain all trees and boundary habitat where possible. Landscape planting should be carried out post works and should incorporate a high proportion of native species.
- Policy EN15: The Council will seek to safeguard designated nature conservation sites by resisting development or land use changes which would be likely to adversely affect their nature conservation value. The weight to be afforded to nature conservation interests will have regard to their status.
- Policy EN18 - The Council will resist the loss of open areas and undeveloped gaps within settlements which contribute to the character or amenities of the locality. Development should serve to increase the biodiversity value of the site post works.

Appendix D
Plant Species List

Plant Species List

Scientific nomenclature follows Stace (2010) for vascular plant species and British Bryological Society (BBS) Special Volume No. 5 *English Names for British Bryophytes* for bryophyte species. Vascular plant common names follow the Botanical Society of the British Isles 2003 list, published on its web site, www.bsbi.org.uk. The plant species list was generated as part of a Phase 1 Habitat survey and does not constitute a full botanical survey.

Abundance was estimated using the DAFOR scale as follows:

D = dominant, A = abundant, F = frequent, O = occasional, R = rare, L = locally

Key to qualifiers: c=clumped, e=edge only, g=garden origin, p=planted, y = young, s=seedling or sucker, t=tree, h=hedge, w=water, ? = identification uncertain.

Scientific Name	Common Name	Abundance	Qualifier
<i>Acer pseudoplatanus</i>	Sycamore	A	T
<i>Anthriscus sylvestris</i>	Cow parsley	O	
<i>Castanea sativa</i>	Sweet chestnut	R	T
<i>Crataegus monogyna</i>	Hawthorn	R	T
<i>Fagus sylvatica</i>	Beech	F	T,H
<i>Festuca spp.</i>	Fescues	F	
<i>Fraxinus excelsior</i>	Ash	O	T
<i>Galium aparine</i>	Cleavers	O	
<i>Hedera helix</i>	Ivy	F	
<i>Iris pseudacorus</i>	Yellow iris	R	
<i>Ligustrum ovalifolium</i>	Garden privet	F	H
<i>Lolium perenne</i>	Perennial rye-grass	O	
<i>Plantago lanceolata</i>	Ribwort plantain	O	
<i>Plantago major</i>	Greater plantain	O	
<i>Rubus fruticosus agg.</i>	Bramble	F	
<i>Taraxacum sp.</i>	Dandelion	O	
<i>Trifolium repens</i>	White clover	F	
<i>Urtica dioica</i>	Common nettle	F	

Appendix E
Suggested Compensatory Planting

Suggested Compensatory Planting

This section provides a list of plants which are of proven value to wildlife. The list is not exhaustive and merely provides a guide for suggested planting for wildlife value. Planting should be tailored on a site by site basis. The list includes some native and ornamental species however the emphasis should always be on the use of predominantly native species.

N = Native, NN = Non-native.

This list includes species that may be harmful if handled or ingested. Schedule 9 (Part 2) of the Wildlife and Countryside Act, 1981 (as amended) includes a list of invasive plants, including aquatic species, that should always be avoided in planting schemes.

Large Shrubs

Hedge veronica/Hebe (*Veronica* spp.) NN

Hawthorn (*Crataegus monogyna*) N

Blackthorn (*Prunus spinosa*) N

Rose: dog rose (*Rosa canina*), field rose (*R. arvensis*), burnet rose (*R. pimpinellifolia*) N

California lilac (*Ceanothus* spp.), (*C. arborea*) NN

Wild privet (*Ligustrum vulgare*) N

Common holly (*Ilex aquifolium*) N

Barberry (*Berberis* spp.) (*B. darwinii*), (*B. thunbergii*), (*B. x stenophylla*) NN

Daisy Bush (*Olearia* spp.), (*O. x hastii*), (*O. macrodonta*) and (*O. traversii*) NN

Firethorn (*Pyracantha coccinea*) NN

Hazel (*Corylus avellana*) N (*C. maxima*) NN

Viburnum (*Viburnum* spp.), wayfaring tree (*V. lantana*) N, guelder rose (*V. opulus*) N, laurustinus (*V. tinus*) E Note: *V. lantana* can become invasive in more open habitats.

Butterfly bush (*Buddleja* spp.), (*B. alternifolia*), (*B. globosa*) NN

Dogwood (*Cornus sanguinea*) N

Broom (*Cytisus scoparius*) N

Escallonia (*Escallonia macrantha*) NN

Hardy fuchsia (*Fuchsia magellanica*) NN

Buckthorn (*Rhamnus cathartica*) N

Spindle (*Euonymus europaeus*) N

Tutsan (*Hypericum androsaemum*) N

Yew (*Taxus baccata*) N

Trees

Cherry (*Prunus* spp.), wild cherry (*P. avium*), bird cherry (*P. padus*), domestic plum (*P. domestica*) N or cherry plum (*P. cerasifera*) NN

Ash (*Fraxinus excelsior*) N

Apple (*Malus* spp.), edible apple (*M. domestica*), crab apple (*M. sylvestris*) N

Pear (*Pyrus* spp.), edible pear (*P. communis*) NN

Small-leaved lime (*Tilia cordata*) N

Silver birch (*Betula pendula*) N

Yew (*Taxus baccata*) N

Black poplar (*Populus nigra*) N

Foxglove tree (*Paulownia tomentosa*) NN

Beech (*Fagus sylvatica*) N

Climbers

Jasmine (*Jasminum* spp.), summer jasmine (*J. officinale*), winter jasmine (*J. nodiflorum*) NN

Ivy (*Hedera helix*) N

Climbing hydrangea (*Hydrangea anomala* ssp. *petiolaris*) NN

Honeysuckle (*Lonicera* spp.) (*L. periclymenum*) N

Clematis (*Clematis* spp.) NN

Hop (*Humulus lupulus*) N

Firethorn (*Pyracantha atalantioides*) NN

Nasturtium (*Tropaeolum majus*) NN

Bulbs

English bluebell (*Hyacinthoides non-scripta*) N

Squill species (*Scilla* spp.) N/NN

Snowdrop (*Galanthus nivalis*) N

Winter aconite (*Eranthis hyemalis*) E

Crocus species (*Crocus* spp.) NN

Wild Daffodil (*Narcissus pseudonarcissus*) N

Onion species (*Allium* spp.) N/NN. N.B. *Allium triquetrum* (three cornered leek) and *Allium paradoxum* (few-flowered leek) are Schedule 9 invasive plant species.


Wood anemone (*Anemone nemorosa*) N

Lesser celandine (*Ficaria verna*) N


Appendix F
Bat and Bird Box Designs


Bat and Bird Box Designs

Bird Boxes

Example	Type	Dimension D x W x H (cm)	Target Species	Location
	<p>Schwegler Nest Box 1B</p> <p>Hole-fronted</p> <p>32mm entrance hole</p>	18 x 15.5 x 25.5	Multi-purpose, including; great-, blue-, marsh-, coal and crested tit, redstart, nuthatch, collared and pied flycatcher, wryneck, tree and house sparrows, bats.	Suitable walls or semi-mature/mature trees and shrubs; attached to a tree trunk or hung from branches. Ideal points include discrete areas away from predators, such as against walls, plant and metal supports.

Bat Boxes

Example	Type	Dimension D x W x H (cm)	Target Species	Location
	<p>2F Schwegler Bat Box (General Purpose) with or without Double Front Panel</p>	<p>16 x 16 x 33</p>	<p>Without panel: Particularly successful with brown long-eared bat. Also used by noctule.</p> <p>With panel: Ideal for crevice-dwelling species: pipistrelles, Myotis species (particularly Daubenton's), Leisler's and serotine.</p>	<p>On trees or buildings and at a height of 3 to 6m. In open sunny positions and in groups of 3 to 5 facing different directions.</p>

Example	Type	Dimension D x W x H (cm)	Target Species	Location
	Chavenage Bat Box	10 x 18 x 38	Small crevice-dwelling bats e.g. pipistrelles.	On trees in gardens or woodland and also on house walls. 2.5 - 5m high on a building, mature tree or vegetation line (trees/tall hedge) or on a feeding/flight route in partial daytime sun.

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