



Chalcroft Nurseries Site, Bognor Regis

Ecological Scoping Survey Report

30th March 2009

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1 Introduction

1.1 Site Description

Chalcroft Nurseries Site (the "site") is located off Chalcroft Lane, on the northern urban edge of Bognor Regis, in the county of West Sussex, at post code PO21 5TS. The site, which is approximately 2.5 hectares in size, comprises an operational nursery/garden centre with areas of hard standing, prefabricated buildings, containers and sheds, along with a disused area to the rear (west) of the site which contains scrub, grassland and discarded debris. The site also includes an access road, small triangle of amenity grassland adjacent to Chalcroft Lane, and the small garden area of a bungalow. There are trees along the northern, southern and western boundaries of the site, which are located adjacent to wet ditches containing standing water. The land to the north and west of the site is used for agricultural purposes, with the land to the south being used as a cemetery, and the land to the east being used for residential purposes. The site and surrounding area are illustrated in aerial images provided in Appendix 1.

1.2 Proposed Works

The proposed works include the redevelopment of the site for residential use, which will involve the removal of the existing buildings, structures and artificial/semi-natural habitats, and the construction of new houses with associated access roads, footpaths and garden areas.

1.3 Aims of Study

GreenLink Ecology Ltd has been commissioned by Orchard Enterprises (Southern) Ltd, to undertake a desk study of existing ecological information relating to the surrounding area, and to carry out an ecological scoping survey of the site to identify what habitats are present and look for any evidence of, or potential for, protected/notable species and their habitats.

The aim of this report is to present the results of the survey, describe the habitat characteristics of the site, and highlight any areas of conservation concern. This report also discusses the need for further surveys, and makes recommendations in terms of what mitigation/enhancement measures are required for protected/notable species.

2 Methodology

2.1 Desk Study

A desk study was undertaken in order to locate existing ecological data relating to any statutory or non-statutory designated sites for nature conservation (i.e. sites of international, national, regional/local importance), protected species and/or notable species from within a one kilometre radius of the approximate centre of the site, which is at Ordnance Survey grid reference SU 917 005. The Sussex Biodiversity Record Centre (SxBRC) was contacted and records associated with the site were requested from the following sources:

- Sussex Protected Species Register
- United Kingdom Biodiversity Action Plan (UK BAP) Species Inventory
- Sussex Bird Inventory

2.2 Ecological Scoping Survey

An ecological scoping survey was undertaken by experienced consultant ecologist Marcus Fry MIEEM on 10th March 2009 following published guidelines¹. The plant species and habitat types present were identified and any evidence of, or potential for, protected/notable species and their habitats was recorded. Photographs of selected areas of the site are provided in Appendix 2. On the day of the survey the weather conditions were sunshine with scattered cloud and a light wind. The temperature at midday was around 12°C.

¹ JNCC, (1990), *Handbook for Phase 1 habitat survey - a technique for environmental audit*, Revised reprint 2007

3 Results

3.1 Desk Study

3.1.1 Designated Sites

The SxBRC data report did not identify any statutory or non-statutory designated sites for nature conservation as being present within the one kilometre radius search area.

3.1.2 Protected/Notable Species

The protected/notable species included in the SxBRC data report are listed in Table 1 below, with the full list of records being provided in Appendix 3. Where relevant, the detailed legal status of these species is listed in subsequent sections.

The Sussex Protected Species Inventory includes records for reptiles and mammals, these being slow worm (*Anguis fragilis*), grass snake (*Natrix natrix*), common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*) and brown long-eared bat (*Plecotus auritus*). The three records for slow worm are dated 1995-2002, from locations over approximately 500 metres from the site. The one record for grass snake is dated 2002, from a location approximately 1 kilometre from the site. The five aggregated records for bats are dated 1953-98, with the closest record being from a location within approximately 150 metres of the site.

The UK BAP Species Inventory includes records for the species of reptile and mammal listed above, along with another species of mammal, three species of higher plant and a species of lichen. The two mammal species records are for hedgehog (*Erinaceus europaeus*), dated 1957-88 from non-specific locations. The higher plant species records include one record for juniper (*Juniperus communis*) dated 1996 from a non-specific location, one record for false fox-sedge (*Carex otrubae*) dated 2005 from a non-specific location, and one record for chamomile (*Chamaemelum nobile*) dated 1999 from a location approximately 700 metres distance from the site. The lichen species record is for southern grey physcia (*Physcia tribacioides*) dated 1992 from a non-specific location.

Table 1: Data search results for protected/notable species

Common Name	Scientific Name	Legal Protection/Recognition
Slow worm	<i>Anguis fragilis</i>	Wildlife & Countryside Act, UK BAP
Grass snake	<i>Natrix natrix</i>	Wildlife & Countryside Act, UK BAP
Common pipistrelle bat	<i>Pipistrellus pipistrellus</i>	Wildlife & Countryside Act, Habitat Regulations
Soprano pipistrelle bat	<i>Pipistrellus pygmaeus</i>	Wildlife & Countryside Act, Habitat Regulations, UK BAP
Brown long-eared bat	<i>Plecotus auritus</i>	Wildlife & Countryside Act, Habitat Regulations, UK BAP
Hedgehog	<i>Erinaceus europaeus</i>	UK BAP
Juniper	<i>Juniperus communis</i>	UK BAP
False fox-sedge	<i>Carex otrubae</i>	UK BAP
Chamomile	<i>Chamaemelum nobile</i>	UK BAP
Southern grey physcia	<i>Physcia tribacioides</i>	UK BAP

The Sussex Bird Inventory includes a list of records of forty six species of bird, many of which are common and widespread, and neither protected/notable or of conservation concern, although all birds receive legal protection when they are breeding. Table 2 presents a list of the birds which are protected/notable, and/or could potentially be breeding within the site. In summary, it is considered that only eighteen species would find the habitats within the site suitable for foraging and breeding, and of these, three are Red List Birds of Conservation Concern (BoCC) and also UK

BAP priority species, three are Amber List BoCC species, with one also being a UK BAP species, and twelve are Green List BoCC species.

Table 2: Data search results for protected/notable species of bird

Common name	Scientific name	Conservation status
Black-billed magpie	<i>Pica pica</i>	Green List
Blue tit	<i>Cyanistes caeruleus</i>	Green List
Carrion crow	<i>Corvus corone</i>	Green List
Chaffinch	<i>Fringilla coelebs</i>	Green List
Common blackbird	<i>Turdus merula</i>	Green List
Common kestrel	<i>Falco tinnunculus</i>	Amber List
Common starling	<i>Sturnus vulgaris</i>	Red List, UK BAP
Common wood pigeon	<i>Columba palumbus</i>	Green List
Eurasian collared dove	<i>Streptopelia decaocto</i>	Green List
European robin	<i>Erithacus rubecula</i>	Green List
Goldcrest	<i>Regulus regulus</i>	Green List
Great tit	<i>Parus major</i>	Green List
Green woodpecker	<i>Picus viridis</i>	Amber List
Hedge accentor	<i>Prunella modularis</i>	Amber List, UK BAP
Long-tailed Tit	<i>Aegithalos caudatus</i>	Green List
Song thrush	<i>Turdus philomelos</i>	Red List, UK BAP
Winter wren	<i>Troglodytes troglodytes</i>	Green List
Yellowhammer	<i>Emberiza citrinella</i>	Red List, UK BAP

To put the BoCC Lists into context, the conservation status of the UK's birds has been assessed in a collaborative review led by the RSPB and involving the UK's leading governmental and non-governmental conservation organisations². BoCC lists giving an indication of the relative priority that should be given to each species. Red List species are those that are globally threatened, whose population or range has declined rapidly in recent years (i.e. by more than 50% in 25 years), or which have declined historically and not recovered. Amber List species are those whose population or range has declined moderately in recent years (by more than 25% but less than 50% in 25 years), those whose population has declined historically but recovered recently, rare breeders (fewer than 300 pairs), those with internationally important populations in the UK, those with localised populations, and those with an unfavourable conservation status in Europe. Green List species are regarded as being common and widespread, with no perceived threat to their conservation status.

3.2 Ecological Scoping Survey

3.2.1 Habitat Description

The site can be separated into distinct areas, which contain different artificial/semi-natural habitat types. These areas include the operational nursery/garden centre, the triangle of amenity grassland adjacent to Chalcroft Lane, the bungalow garden, the western part of the site, and the site boundaries. The habitat types which are associated with these areas are illustrated in Figure 1, which accompanies this report.

The operational nursery/garden centre contains single storey buildings and other structures, along with plants and other goods for sale. There is abundant hard standing in this part of the site, including the site access road. This part of the site contains no habitats of conservation concern and is of low ecological value.

² Gregory RD, Wilkinson NI, Noble DG, Robinson JA, Brown AF, Hughes J, Procter D, Gibbons DW and Galbraith C (2002) The population status of birds in the United Kingdom, Channel Islands and Isle of Man: an analysis of conservation concern 2002-07.

The triangle of amenity grassland adjacent to Chalcroft Lane is relatively species-poor in composition, with perennial ryegrass (*Lolium perenne*), buttercup (*Ranunculus* sp.), dandelion (*Taraxacum officinale*), plantain (*Plantago* sp.), yarrow (*Achillea millefolium*), clover (*Trifolium* sp.), lesser celandine (*Ranunculus ficaria*), red dead nettle (*Lamium purpureum*) and daisy (*Bellis perennis*) being recorded during the survey. None of these plants are protected or notable species and this is not a habitat of conservation concern.

The bungalow garden contains amenity grassland with a similar species-poor composition to that described above, along with miscellaneous garden planting composed of ornamental non-native species. None of the plants are protected or notable species and this is not a habitat of conservation concern.

The western part of the site contains abundant scrub vegetation, dominated by bramble (*Rubus fruticosus*), with nettle (*Urtica dioica*), dock (*Rumex* sp.), and willowherb (*Epilobium* sp.) also being present, along with immature ash (*Fraxinus excelsior*), hawthorn (*Crataegus monogyna*) and willow (*Salix* sp.) trees. Although small areas of neutral grassland are also present amongst the scrub, there is only one significant sward of within this area, which surrounds a patch of scrub. Within this grassland are false oat-grass (*Arrhenatherum elatius*), common ragwort (*Senecio jacobaea*), cow parsley (*Anthriscus sylvestris*), willowherb, thistle (*Cirsium* sp.), nettle, dock, cock's-foot (*Dactylis glomerata*), cleavers (*Galium aparine*), daffodil (*Narcissus* sp.), bristly ox-tongue (*Picris echioides*) and buttercup. This area also contains bare ground and discarded debris, composed of metal, wood, rubble and other materials. None of the plants listed above are protected or notable species, and the habitats present are not necessarily of conservation concern, although there is the potential for them to support legally protected species, as described in later sections.

There are trees along the northern, western and southern site boundaries, with hazel (*Corylus avellana*), elder (*Sambucus nigra*), ash, silver birch (*Betula pendula*), hawthorn, willow, blackthorn (*Prunus spinosa*), oak (*Quercus* sp.), elm (*Ulmus* sp.), alder (*Alnus glutinosa*), cherry (*Prunus* sp.) and non-native evergreen species being recorded during the survey. None of these trees are protected or notable species, and they are unlikely to have Tree Preservation Orders³ (TPOs) associated with them. The trees do not represent a habitat of conservation concern, although there is the potential for them to support legally protected species, as described in later sections.

There are wet ditches containing standing water, along the northern and southern site boundaries and part of the western site boundary. These ditches are heavily shaded by trees and scrub vegetation, and contain abundant leaf litter. There are also narrow drainage ditches located within the site itself. The ditches do not represent a habitat of conservation concern, although there is the potential for them to support legally protected species, as described in later sections.

3.2.2 Protected/Notable Species

3.2.2.1 Reptiles

No reptiles were recorded during the survey, which was undertaken during the time of the year when species of British reptile will be in hibernation. However, the western area of the site contains a mosaic of habitats which would be suitable for reptile usage, as there are areas that could be used for basking, sheltering, foraging and hibernation. The wet ditches also represent potentially suitable habitats that could be used by grass snake, which is a highly mobile species of reptile, with an affinity for wetland places.

³ A TPO is made by a Local Planning Authority (LPA) in respect of certain trees or woodlands. The principal effect of a TPO is to prohibit the harming of such trees without the LPA's consent.

3.2.2.2 Breeding Birds

The trees along the site boundaries, within the western part of the site and within the garden area, along with the scrub in the western part of the site represent potential breeding bird habitat. Nests were seen in some of the trees, which were not actively used at the time of the survey that was undertaken early in the breeding season, which is March-July/August (as a guide).

3.2.2.3 Great Crested Newt

The wet ditches within the site and along the site boundaries represent suitable great crested newt (*Triturus cristatus*) breeding habitat. Mating frogs (*Rana temporaria*) were recorded in the boundary ditches, as was frog spawn, which indicates that amphibians are able to breed within these ditches. The scrub and grassland in the western part of the site also represent potentially suitable terrestrial habitat for great crested newts, which forage, shelter and hibernate on land outside of the breeding season.

3.2.2.4 Dormouse

The trees and associated scrub vegetation along the boundaries represent potential dormouse (*Muscardinus avellanarius*) habitat, since there is a diversity of species which could provide the range of flower, nectar, seed, berry, nut and insects required to sustain the species' diet. It is considered that overall the site has sub-optimal potential to support a dormouse population, given the relatively poor habitat linkages with other established tree lines, hedgerows or woodlands. However, persons unknown appear to be surveying the site boundaries for dormouse, since dormouse nest tubes have been installed within some of the trees on the northern boundary. These tubes are used as survey tools, since if they are installed in potentially suitable locations where there is a dormouse population; they will show evidence of use during the summer months.

3.2.2.5 Bats

During the survey there was no evidence for roosting bats within any of the buildings/structures on site and only low potential for bats to be able to use any features on the external fabric of the buildings/structures within the site. Few of the trees along the site boundaries are of sufficient maturity and/or support potential bat roost features, although low numbers of trees were identified as being relatively mature and having splits, cracks and dense ivy covering, which could be used by summer roosting bats. The trees along the boundaries also have the potential to be used by commuting and/or foraging bats, since the smaller species in particular tend to stay close to the edges of habitats when exhibiting this behaviour. Larger species will forage and commute further from habitat edges and may use the airspace above the scrub in the western part of the site for these activities.

4 Assessment

4.1 Constraints

4.1.1 Desk Study

The Sussex Biodiversity Records Centre provided comprehensive records for legally protected and notable species. However, the list of records provided should not be regarded as definitive, since the lack of data about a species does not necessarily imply the absence of a species from an area. It should also be noted that despite having data sharing agreements with many specialist recording societies in West Sussex, the SxBRC may not always hold the most up to date records for a particular area. Since this situation is commonplace across the country when requesting records from Biodiversity Records Centres (or similar organisations), it is considered that there were no constraints to the desk study information.

4.1.2 Ecological Scoping Survey

Access to all areas of the site was possible and the survey was undertaken by an experienced consultant ecologist using standard survey techniques. It is therefore considered that there were no constraints to the ecological scoping survey.

4.2 Potential Impacts

4.2.1 Habitats

Although there is potential for legally protected species to be using some of the habitats within the site, the habitats within the site are not of conservation concern *per se*. Since the value of the habitats to the protected species which are potentially present cannot be assessed before presence/absence is ascertained through further surveys, the level of impact relating to the loss of such habitats cannot be adequately addressed in this report.

4.2.2 Designated Sites

The SxBRC identified no statutory or non-statutory designated sites within the 1 kilometre radius search area and it is therefore considered that the proposed works could not have an impact to such sites.

4.2.3 Protected/Notable Species

Where there is no mention below of the protected/notable species reported by the SxBRC data search in Section 3.1.2, this is due to the site not supporting suitable habitats for these species, or where no evidence of, or potential for their presence was identified during the ecological scoping survey.

4.2.3.1 Reptiles

The site contains a mosaic of potentially suitable habitats which could support the four more common and widespread species of reptile, two of which were reported from the SxBRC data search as having been recorded in the search area. Of these species, grass snake is of least concern, other than when in hibernation, since it is a highly mobile species which will actively disperse away from human disturbance. Adder (*Viper berus*), slow worm, and common lizard (*Lacerta vivipara*) however are less mobile and if present, these species could be impacted upon by the clearance of the site for development, through killing or injury, which would be an offence against domestic legislation. However, by conducting further surveys to determine the

presence/absence of reptiles, followed by appropriate mitigation and compensation measures being implemented, if required, the risk of impacting upon reptiles can be avoided.

4.2.3.2 *Breeding Birds*

The site contains trees and scrub which could support nesting birds during the breeding season, including common and widespread species, along with Red and Amber BoCC species. If site clearance is undertaken during the breeding season, nesting birds could be adversely affected by the proposed works, since the clearance of potential breeding bird habitat, such as scrub and trees has the potential to result in the killing or injuring of nesting birds and the destruction of nests and eggs, which would be an offence against domestic law. However with appropriate mitigation and by undertaking works which have the potential to impact on breeding bird habitats during the appropriate time of the year (i.e. September–February as a guide) as is best practice, the risk of this occurring can be avoided.

4.2.3.3 *Great Crested Newt*

Great crested newts may be affected by the proposed works if they are present in wet ditches located within the site and along the site boundaries, since great crested newts (if present) would use these ditches for breeding, and would also use the terrestrial habitats within the site for foraging, sheltering and hibernating purposes. Without appropriate mitigation the proposed works could result in direct impacts to great crested newts through injury or mortality, and the disturbance, damage and destruction of great crested newt habitat, all of which would be an offence against domestic and European law. However by conducting surveys during the appropriate time of year and, if then considered necessary, by using best practice mitigation/compensation measures, it is considered that negative impacts to individual great crested newts and to the conservation status of local great crested newt populations can be avoided.

4.2.3.4 *Dormouse*

The site contains sub-optimal, but still potentially suitable dormouse habitat, along the northern, western and southern site boundaries. Without appropriate mitigation the proposed works could result in direct impacts to dormice through injury or mortality, and the disturbance, damage and destruction of dormouse habitat, all of which would be an offence against domestic and European law. However by conducting surveys during the appropriate time of year and, if then considered necessary, by using best practice mitigation/compensation measures, it is considered that negative impacts to individual dormice and to the conservation status of local dormouse populations can be avoided.

4.2.3.5 *Bats*

Bats may be affected by the proposed works, if they are using any of the trees along the northern, western and southern site boundaries for roosting purposes, and if these trees are to be disturbed, damaged or removed as a result of the proposed works, since without appropriate mitigation this could result in direct impacts to bats through injury or mortality, and the disturbance, damage and destruction of an actual roost site, all of which would be an offence against domestic and European law. In addition, these tree lined boundaries may be being used by the local bat population as foraging and/or commuting corridors. However by conducting surveys during the appropriate time of year, and if then considered necessary, by using best practice mitigation/compensation measures, it is considered that negative impacts to individual bats and to the conservation status of local bat populations can be avoided.

4.3 Legislation and Policy Guidance

4.3.1 European Protected Species

Great crested newt, dormouse and all species of British bat, and their habitats, are protected under the Wildlife and Countryside Act 1981 (as amended by the CRoW Act 2000⁴), and by the Conservation (Natural Habitats &c.) Regulations 1994, as amended by the Conservation (Natural Habitats, &c.) (Amendments) Regulations 2007⁵ and 2009.

The legislation makes it illegal under the Wildlife and Countryside Act 1981 (as amended) to:

- Intentionally or recklessly kill, injure or take a wild great crested newt/dormouse/bat
- To be in possession or control of any live or dead wild bat or any part of, or anything derived from, a wild great crested newt/dormouse/bat
- Intentionally or recklessly obstruct access to any place that a wild great crested newt/dormouse/bat uses for shelter or protection
- Intentionally or recklessly disturb any wild great crested newt/dormouse/bat while it is occupying a structure or place that it uses for shelter or protection

Great crested newt, dormouse and all species of British bat are European Protected Species (EPS). As such under the Habitat Regulations 1994 (as amended) it is an offence to:

- Deliberately capture, injure or kill any wild animal of a European Protected Species;
- Deliberately disturb wild animals of any such species. Disturbance of animals includes in particular any disturbance which is likely to:
 - impair their ability -
 - to survive, to breed or reproduce, or to rear or nurture their young; or
 - in the case of animals of a hibernating or migratory species, to hibernate or migrate; or
 - to affect significantly the local distribution or abundance of the species to which they belong;
- Deliberately damage or destroy a breeding site or resting place of such an animal.

4.3.2 Reptiles

All species of reptile native to the UK are afforded legal protection under the Wildlife and Countryside Act 1981 (as amended) in respect of deliberate, intentional or reckless killing and injuring.

4.3.3 Breeding Birds

Breeding birds are protected under the Wildlife and Countryside Act 1981 (as amended) which makes it an offence to intentionally or recklessly kill, injure or take any wild bird or take, damage or destroy its nest whilst it is in use or being built, or to take or destroy its eggs. In addition, some species of bird are listed under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended), for which there are additional offences of disturbing these birds at their nests, or their dependent young.

⁴ Key sections of the Wildlife and Countryside Act 1981, principally those relating to powers and penalties have been amended by the Countryside and Rights of Way Act 2000 (CRoW Act). One of the most important of these is the addition of the word 'reckless' within offences under Section 9(4) of the Wildlife and Countryside Act 1981, which makes prosecution easier.

⁵ The amendment includes the removal of the "incidental result defence" which applied to acts which could constitute an offence but were the incidental result of an otherwise lawful activity and could not reasonably have been avoided.

4.3.4 Planning Policy Statement 9 (PPS9)

PPS9: Biodiversity and Geological Conservation, sets out government planning policies on the protection of biodiversity and geological conservation through the planning system. Local Planning Authorities are required under PPS9 to make planning decisions which are based upon up-to-date information about the environmental characteristics of areas, including the presence of legally protected species and designated sites for nature conservation. In the context of development proposals, Local Planning Authorities are directed to ensure that species of principal conservation importance are protected from the adverse effects of development, where appropriate, by using planning conditions or obligations. The conservation of such species should be promoted through the incorporation of beneficial biodiversity designs within developments.

4.3.5 UK Biodiversity Action Plan

The goal of the UK Biodiversity Action Plan (BAP) is to conserve and enhance biological diversity within the UK in line with our international commitments. A list of priority species and habitats that will guide future conservation action was approved by the Governments of all four UK administrations on 28th August 2007.

This list is the result of the most comprehensive analysis by experts ever undertaken in the UK and contains 1149 species and 65 habitats that have been listed as a basis for prioritising conservation action under the UK Biodiversity Action Plan. The list has increased in numbers since the original Biodiversity Action Plan list was compiled ten years ago because the review involved a more rigorous analysis of a wider range of species and habitats. The review also took better account of less well known species. As a result, several habitats and many additional species have been identified as priorities. Some species are newly included because they are in decline or under threat.

5 Recommendations

5.1 Further Survey

Whilst this survey report has identified some potential impacts that could occur as a result of the proposed works, further surveys for legally protected species are recommended in order to establish presence/absence, to enable a fuller understanding of the likely impact of development on the site. This information is required by the Local Planning Authority since under PPS9, they are required to take biodiversity conservation issues into account as part of their decision making. This information will also be required to inform an European Protected Species licence application, which may be required if great crested newt/dormouse/bats are confirmed to be present within or close to the site.

5.1.1 Reptiles

Surveys for reptiles are recommended, to confirm presence or likely absence. This will require an initial visit to lay out Artificial Cover Objects (ACOs) comprising 0.5 m² squares of corrugated metal, bituminised material, rubber sheeting and roofing felt, which attract reptiles if present in an area since they provide ideal micro-climates for basking and sheltering. These ACOs will then need to remain undisturbed and surveyed for the presence of any reptiles by an experienced ecologist. Reptile survey visits should be undertaken during April-September.

5.1.2 Breeding Birds

Further surveys for breeding birds is not recommended, unless there is to be any clearance of potential nesting habitat (i.e. scrub and/or trees) within the breeding season. If this is to be the case a breeding bird survey will need to be undertaken by a suitable experienced ornithological surveyor. This should be conducted during the breeding season, which is March-July/August (as a guide).

5.1.3 Great Crested Newt

Surveys for great crested newt are recommended, to confirm presence or likely absence. The survey methodology for great crested newt has been defined in detail by Natural England⁶. This requires a minimum of four PM/AM surveys to be conducted by a Natural England licensed surveyor (or accredited agent of such a surveyor), between mid-March and mid-June, with at least three of the surveys being undertaken between mid-April and mid-May. Each survey comprises a nocturnal check of water bodies with a high-powered torch and the setting of funnel traps. This is followed up the next morning with the traps being checked and removed, aquatic vegetation being searched for eggs or larvae, and nets being used to catch adults, if present. Should great crested newts be recorded in the ponds two further PM/AM surveys will be required as per the guidelines, in order to make a population size estimate.

5.1.4 Dormouse

Following the survey methodology set out in the Dormouse Conservation Handbook⁷, published by Natural England, and in accordance with the survey rigour detailed in English Nature's 2003 research report number 524, surveys are recommended for dormouse. This is largely due to the presence of dormouse nest tubes being identified during the survey, indicating that a third party appears to be conducting surveys for the species, rather than the potential for dormouse presence being considered to be high. To not undertake dormouse surveys is considered to risk the overall study being open to criticism if a neighbouring scheme is conducting such surveys

⁶ Great Crested Newt Mitigation Guidelines. English Nature (2001).

⁷ Dormouse Conservation Handbook – Second Edition. English Nature (2006)

along the boundaries of the site. Dormouse survey visits should be undertaken during April-September.

5.1.5 Bats

In accordance with the Bat Conservation Trust's published guidance⁸ three dusk activity surveys should be undertaken for the site, to identify what species are present within the area and what the apparent value of the site is to the local bat population. Mature trees along the site boundary should also be assessed for bat root potential, and for the future requirement for emergence/re-entry surveys, if the trees are to be affected by the proposed works. Bat activity surveys survey visits should be undertaken during April-September.

5.2 European Protected Species (EPS) Licence

Although the law provides strict protection to great crested newt, dormouse and bats and it also allows this protection to be set aside (derogation) through the issuing of EPS licences. The issuing of EPS licences in England in relation to development work is currently dealt with by Natural England.

Three tests must be satisfied before Natural England can issue an EPS licence to permit otherwise prohibited acts:

1. Regulation 44(2) states that licences may be granted to "preserve public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment".
2. Regulation 44(3) states that a licence may not be granted unless "...there is no satisfactory alternative".
3. Regulation 44(3)(b) states that a licence cannot be issued unless the licensing authority is satisfied that the action proposed "will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range".

In order to obtain an EPS licence it has to be clearly demonstrated that any disturbance or damage to EPS habitat will be adequately compensated for. A licence does not legitimise killing or injury and mitigation is required to ensure that EPS are protected during site preparation and construction, and that the conservation status of the species is maintained. An EPS licence application would need to be accompanied by a detailed method statement, which would guide mitigation works using best practice mitigation and compensation measures.

5.3 Mitigation and Enhancement Measures

5.3.1 Habitats

It is recommended that the redevelopment of the site should seek to integrate semi-natural habitats into the site, to include features such as hedgerows, trees and shrubs, which will benefit a variety of wildlife, as well as being aesthetically pleasing. Native species should be used, preferably of local provenance.

5.3.2 Reptiles, Great Crested Newt, Dormouse and Bats

The full detail of mitigation and/or compensation required will become apparent once further survey work has been undertaken for protected species. A strategy would need to be discussed

⁸ Bat Conservation Trust. *Bat Surveys – Good Practice Guidelines* (2007)

and agreed with Natural England once the survey work is completed, if it has been confirmed that protected species are present. An EPS licence may also need to be applied for from Natural England.

Regardless of whether protected species are found to be present within the site, it is recommended that features are incorporated into the site which could benefit common and widespread, and protected/notable species, since when considering development proposals, under PPS9, Local Planning Authorities should ensure that measures are being taken to promote a positive gain for biodiversity.

5.3.3 *Breeding Birds*

The clearance of any potential nesting bird habitats, such as trees or scrub should ideally be undertaken outside the bird breeding season, (avoiding March-July as a guide). Should it prove necessary conduct these works during the breeding season, this should be carried out under the supervision of an experienced Ecological Clerk of Works (ECoW), who will check the habitats in advance for the presence/absence of any birds' nests. If any active nests are found then works with the potential to impact on the nest must cease and an appropriate buffer zone should be established until the young have fledged and the nest is no longer in use.

6 Conclusions

To inform a planning application for the Chalcroft Nurseries Site, GreenLink Ecology Ltd was commissioned to undertake a desk study of existing ecological data, and conduct an ecological scoping survey of the site.

The desk study data obtained from the SxBRC revealed that there are no statutory or non-statutory designated sites for nature conservation within a 1 kilometre radius of the site. The SxBRC data search did however reveal that records exist from within the search area for protected and/or notable species of reptile, mammal, plant and bird. These records are all from a variety of locations, none of which are within the proposed development site.

The ecological scoping survey undertaken on 10th March 2009 was conducted by an experienced ecologist who determined that none of the plant species recorded within the site is protected or notable, but that the site does contain features of ecological value, including tree lined boundaries, areas of scrub and grassland in the western part of the site, and wet ditches containing standing water. Although these habitats are not of conservation concern *per se*, they have the potential to support and/or be used by legally protected/notable species. The survey identified that species of reptile, breeding bird, great crested newt, dormouse and bat may be present within or close to the site.

Recommendations for the site include further survey work for reptiles, great crested newt, dormouse and bats, along with mitigation and enhancement measures for habitats and breeding birds.

Overall, at the time that this report was written there are no known overriding ecological constraints which would prevent the proposed development going ahead, subject to appropriate further survey, mitigation and compensation.

7 Additional Information

It should be noted that observations relating to protected/notable species are valid at the time of survey. It is possible that protected/notable species not present during the survey may utilise or otherwise colonise the site since it was surveyed.

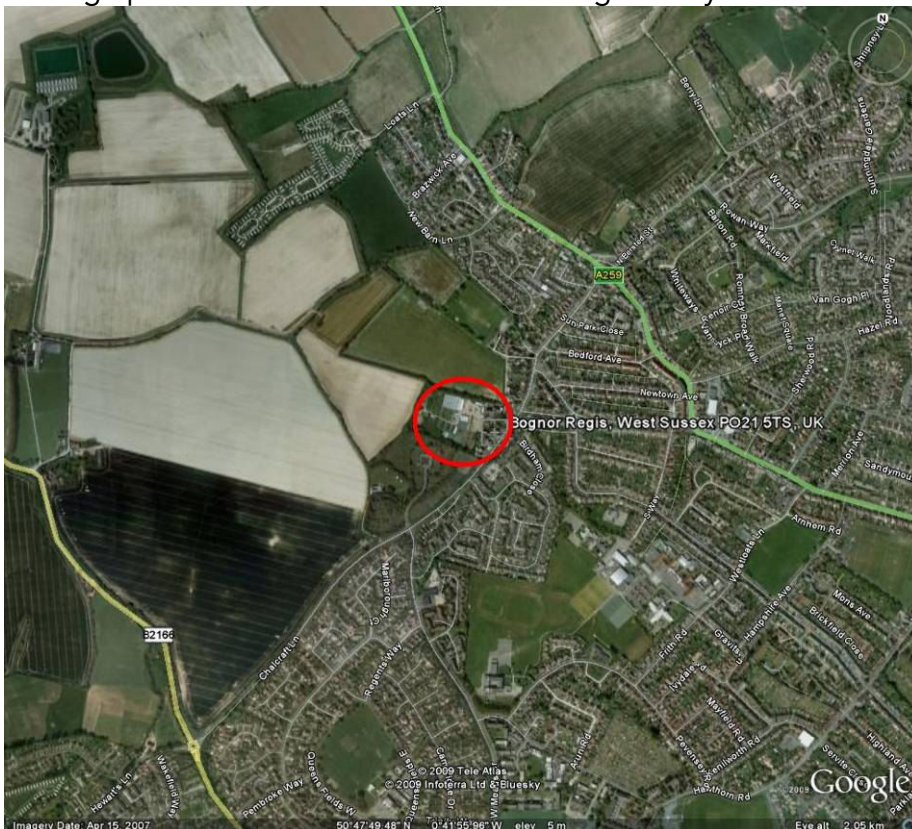
8 Appendices

Appendix 1: Aerial photographs illustrating the site and surrounding land

Photograph 1: The site and immediate surrounding area



Photograph 2: The site and wider surrounding countryside



Appendix 2: Photographs of the site

Photograph 1: Triangle of amenity grassland and access road adjacent to Chalcraft Lane



Photograph 2: Miscellaneous garden planting in bungalow garden, adjacent to site



Photograph 3: View of operational nursery/garden centre area, view looking south



Photograph 4: Dense scrub vegetation in the western part of the site, view looking east



Photograph 5: Discarded debris in the western part of the site, view looking west



Photograph 6: Dormouse tube on the northern boundary – installed by unknown ecologist



Photograph 7: Mating frogs in wet ditch (centre) and frog spawn (right and left)



Photograph 8: Neutral grassland and scrub, with tree lined boundaries, view looking south



Appendix 3: Protected/notable species records as provided by the SxBRC



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PROTECTED SPECIES REPORT

Land at Chalcroft Nurseries, Bognor Regis + 1km radius

19 March 2009 ESD/09/115 Search Area: SZ9099 to SU9201
 Marcus Fry (Greenlink Ecology Ltd)

The contextual information in this report is based on the latest data available to the Record Centre and is regularly updated. If relying on this information for important decisions please check with record centre for the most up to date position of this species in Sussex. Please note that Otters and Birds are not included in this report.

Anguis fragilis

Slow-worm

A legally protected legless lizard resembling a small snake. Slow-worms are widespread in southern England and found in open habitats such as rough grassland, heath and on road and railway embankments. They are often common in urban and suburban areas. Like most reptiles and amphibians they have declined considerably and need protection wherever they occur.

reptile

W&CA Sch 5 Sec 9.1 (killing/injuring)
 Wildlife & Countryside Act Sch5 Sec 9.5a
 Wildlife & Countryside Act Sch5 Sec 9.5b
 BAP:2007

Grid Reference	Recorder	Date	Locality
SU924002	SARG Sussex Amphibian & Reptile Grp; Dennis Dey	10/08/1995	West Sussex (VC13)
SU928000	SARG 2002 Leaflet	2002	West Sussex (VC13)
SZ927997	SARG 2002 Leaflet	2002	West Sussex (VC13)

Natrix natrix

Grass Snake

A widespread, but legally protected, snake with a normally olive body flecked with black and a distinctive yellow collar. Frequent in Sussex near places where its food, largely frogs, is readily available. Like most reptiles and amphibians, grass snakes have declined considerably and need protection wherever they occur.

reptile

W&CA Sch 5 Sec 9.1 (killing/injuring)
 Wildlife & Countryside Act Sch5 Sec 9.5a
 Wildlife & Countryside Act Sch5 Sec 9.5b
 BAP:2007

Grid Reference	Recorder	Date	Locality
SZ927997	SARG 2002 Leaflet	2002	West Sussex (VC13)

Bat

terrestrial mammal

European Protected Species

Grid Reference	Recorder	Date	Locality
SU919007	EN English Nature Bat Files	28/06/1988	West Sussex (VC13)

Pipistrellus pipistrellus

Pipistrelle Bat (species aggregate)

The commonest bat in the British Isles, this small species is found in all types of countryside, except very exposed areas, as well as in towns and suburbs. Summer roosts are usually in buildings, though tree holes and bat boxes are also used. Winter roosts are in buildings, tree holes and caves.

Pipistrelles were often recorded as either 45 kHz or 55 kHz depending on the pitch of the echolocation calls picked up by bat detectors. These are now separate species; *Pipistrellus pipistrellus* being the 45 kHz animal and *P. pygmaeus* the 55 kHz.

This is the aggregate version of the Pipistrelle where the audio frequency or specific species is undetermined.

Both *Pipistrellus pipistrellus* (45 kHz) and *P. pygmaeus* (55 kHz) are widespread in Sussex and, like all bats are a legally protected species.

terrestrial mammal

W&CA Sch 5 Sec 9.1 (killing/injuring)

W&CA Sch 5 Sec 9.1 (taking)

Wildlife & Countryside Act Sch 5 Sec 9.2

Wildlife & Countryside Act Sch 5 Sec 9.4a

Wildlife & Countryside Act Sch 5 Sec 9.4b

Wildlife & Countryside Act Sch 5 Sec 9.5a

Wildlife & Countryside Act Sch 5 Sec 9.5b

FEP Guidance 007: Table 2

European Protected Species

Grid Reference	Recorder	Date	Locality
SU928013	Recorder @ Sussex Bat Group	23/08/1998	West Sussex (VC13)
SZ9199	Unknown	1965	West Sussex (VC13)

Pipistrellus pipistrellus

Common Pipistrelle (45 kHz)

Pipistrelles are often recorded as either 45 kHz or 55 kHz depending on the pitch of the echolocation calls picked up by bat detectors. Bats in this 45 kHz category are now simply *Pipistrellus pipistrellus* with the 55 kHz becoming *P. pygmaeus*. Pipistrelles are the commonest bats in the British Isles and are found in all types of countryside, except very exposed areas, as well as in towns and suburbs. Summer roosts are usually in buildings, though tree holes and bat boxes are also used. Winter roosts are in buildings, tree holes and caves.

terrestrial mammal

W&CA Sch 5 Sec 9.1 (killing/injuring)

W&CA Sch 5 Sec 9.1 (taking)

Wildlife & Countryside Act Sch 5 Sec 9.2

Wildlife & Countryside Act Sch 5 Sec 9.4a

Wildlife & Countryside Act Sch 5 Sec 9.4b

Wildlife & Countryside Act Sch 5 Sec 9.5a

Wildlife & Countryside Act Sch 5 Sec 9.5b

European Protected Species

Grid Reference	Recorder	Date	Locality
SU920004	EN English Nature Bat Files	21/09/1988	West Sussex (VC13)

Plecotus auritus

Brown Long-eared Bat

The second most common British bat, but difficult to distinguish from the much rarer grey long-eared bat, *Plecotus austriacus*. It frequents open woodland, wood pasture and orchards and has summer roosts in older buildings and trees. It usually hibernates in caves, tunnels and mines. The brown long-eared has declined in the British Isles though it remains widespread. Like all bats, it is a legally protected species.

terrestrial mammal

W&CA Sch 5 Sec 9.1 (killing/injuring)

W&CA Sch 5 Sec 9.1 (taking)

Wildlife & Countryside Act Sch 5 Sec 9.2

Wildlife & Countryside Act Sch5 Sec 9.4a

Wildlife & Countryside Act Sch5 Sec 9.4b

Wildlife & Countryside Act Sch5 Sec 9.5a

Wildlife & Countryside Act Sch5 Sec 9.5b

FEP Guidance 007: Table 2

BAP:2007

European Protected Species

Grid Reference	Recorder	Date	Locality
SZ9299	Unknown	1953	West Sussex (VC13)



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 Web: sxbrc.org.uk

UK BIODIVERSITY ACTION PLAN SPECIES REPORT

Land at Chalcroft Nurseries, Bognor Regis + 1km radius

19 March 2009 ESD/09/115 Search Area: SZ9099 to SU9201
 Marcus Fry (Greenlink Ecology Ltd)

The contextual information in this report is based on the latest data available to the Record Centre and is regularly updated. If relying on this information for important decisions please check with record centre for the most up to date position of this species in Sussex. Please note that Otters and Birds are not included in this report.

Physcia tribacioides

Southern Grey Physcia

A lichen which occurs on nutrient-enriched bark, especially in old apple orchards in SW England and SW Ireland. Only one Sussex record at Barnham Common, West Sussex.

lichen

Wildlife & Countryside Act Sch 8

Nationally scarce

BAP:2007

RedList_GB_post2001:VU

Grid Reference	Recorder	Date	Locality
SU90	Francis Rose;Pauline Rose	07/05/1992	Barnham Common

Juniperus communis

Juniper

An evergreen conifer found on basic and acidic soils in a wide range of habitats, including chalk downland and heath. In Sussex it is now confined to the Downs where it is still widespread, but very scarce in West Sussex but found in only one area in East Sussex.

conifer

FEP Guidance 001

FEP Guidance 007: Table 2

BAP:2007

Grid Reference	Recorder	Date	Locality
SU90	Francis Rose	16/04/1996	Trumley Pit

Carex otrubae

False Fox-sedge

flowering plant

Grid Reference	Recorder	Date	Locality
SU90F	Nick Sturt;J.A. Cole;Elizabeth Sturt	29/07/2005	West Sussex (VC13)

Chamaemelum nobile

Chamomile

The decline in many parts of Britain of this species of heaths and commons became apparent towards the end of the last century. The plant still occurs in both East and West Sussex on greens, cricket fields and closely mown unimproved turf and may increase in response to pony grazing.

flowering plant

Nationally scarce

BAP:2007

RedList_GB_post2001:VU

Grid Reference	Recorder	Date	Locality
SZ917996	Anon @ Sussex Bot. Rec. Soc.; J Wilson	1999	West Sussex (VC13)

Anguis fragilis

Slow-worm

A legally protected legless lizard resembling a small snake. Slow-worms are widespread in southern England and found in open habitats such as rough grassland, heath and on road and railway embankments. They are often common in urban and suburban areas. Like most reptiles and amphibians they have declined considerably and need protection wherever they occur.

reptile

W&CA Sch 5 Sec 9.1 (killing/injuring)

Wildlife & Countryside Act Sch5 Sec 9.5a

Wildlife & Countryside Act Sch5 Sec 9.5b

BAP:2007

Grid Reference	Recorder	Date	Locality
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reptile

W&CA Sch 5 Sec 9.1 (killing/injuring)

Wildlife & Countryside Act Sch5 Sec 9.5a

Wildlife & Countryside Act Sch5 Sec 9.5b

BAP:2007

Grid Reference	Recorder	Date	Locality
SZ927997	SARG 2002 Leaflet	2002	West Sussex (VC13)

Erinaceus europaeus

West European Hedgehog

The hedgehog is one of our most familiar and endearing small mammals and it is still widespread in Sussex and Britain. However, hedgehog numbers have been adversely affected by changes in agriculture with less permanent pasture and fewer hedgerows. Climate change may also affect the availability of earthworms, one of their main foods, during hot, dry summers. There is some survey evidence that hedgehogs are most common where badgers are rarer and badgers do, of course, prey on them.

terrestrial mammal

BAP:2007

Grid Reference	Recorder	Date	Locality
SU9100	P Goldsmith	1988	West Sussex (VC13)
SZ9299	Sussex Mammal Recs. 1960 - 70	12/12/1957	West Sussex (VC13)

Plecotus auritus

Brown Long-eared Bat

The second most common British bat, but difficult to distinguish from the much rarer grey long-eared bat, *Plecotus austriacus*. It frequents open woodland, wood pasture and orchards and has summer roosts in older buildings and trees. It usually hibernates in caves, tunnels and mines.

The brown long-eared has declined in the British Isles though it remains widespread. Like all bats, it is a legally protected species.

terrestrial mammal

W&CA Sch 5 Sec 9.1 (killing/injuring)

W&CA Sch 5 Sec 9.1 (taking)

Wildlife & Countryside Act Sch 5 Sec 9.2

Wildlife & Countryside Act Sch 5 Sec 9.4a

Wildlife & Countryside Act Sch 5 Sec 9.4b

Wildlife & Countryside Act Sch 5 Sec 9.5a

Wildlife & Countryside Act Sch 5 Sec 9.5b

FEP Guidance 007: Table 2

BAP:2007

European Protected Species

Grid Reference

SZ9299

Recorder

Unknown

Date

1953

Locality

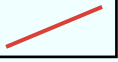
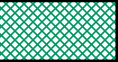
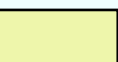
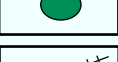
West Sussex (VC13)

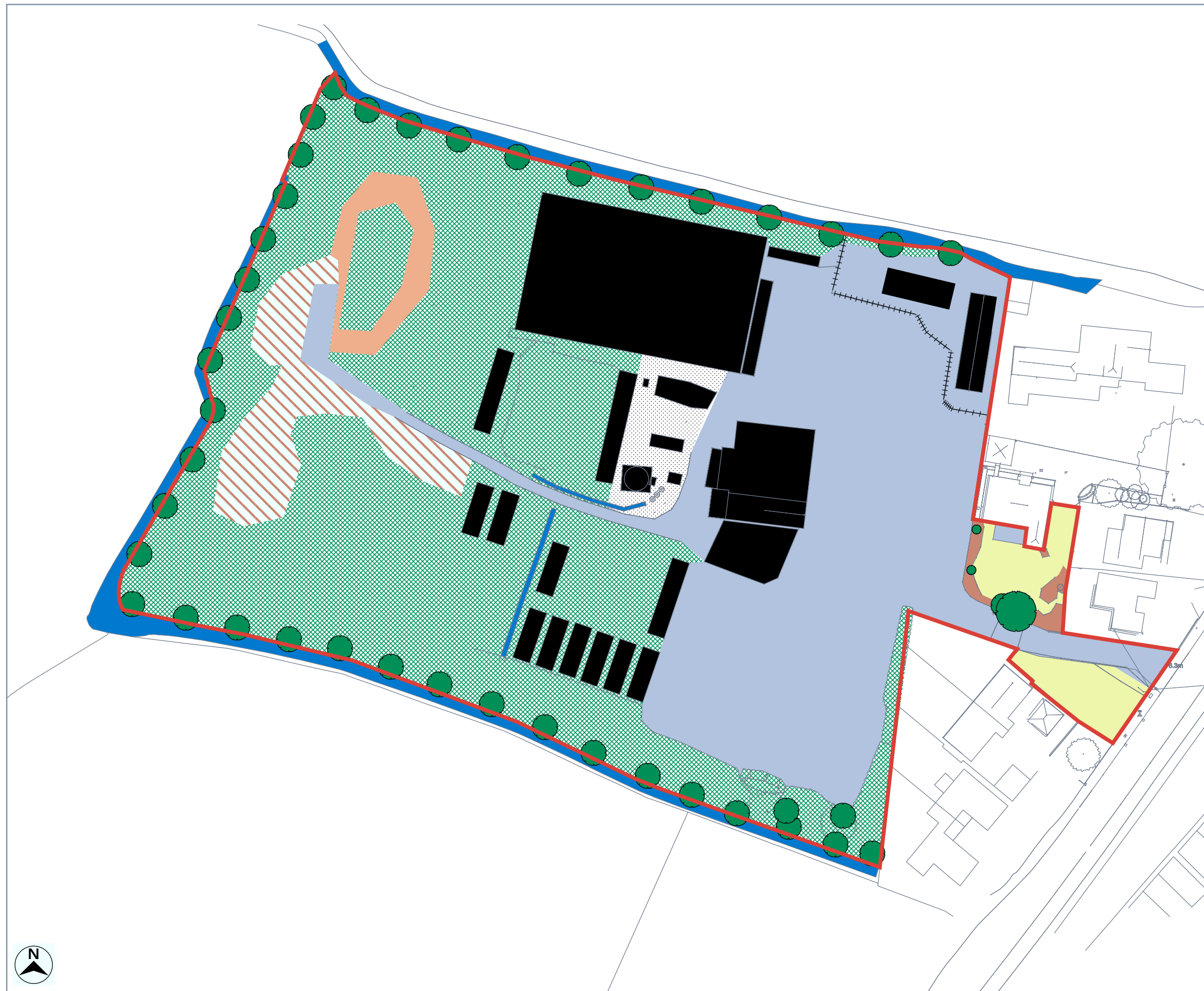
Sussex Ornithological Society Bird Inventory

Common name	Scientific name
Barn swallow	<i>Hirundo rustica</i>
Black-billed Magpie	<i>Pica pica</i>
Blackcap	<i>Sylvia atricapilla</i>
Black-headed Gull	<i>Larus ridibundus</i>
Blue tit	<i>Cyanistes caeruleus</i>
Brambling	<i>Fringilla montifringilla</i>
Carrion crow	<i>Corvus corone</i>
Chaffinch	<i>Fringilla coelebs</i>
Coal tit	<i>Parus ater</i>
Common blackbird	<i>Turdus merula</i>
Common buzzard	<i>Buteo buteo</i>
Common kestrel	<i>Falco tinnunculus</i>
Common kingfisher	<i>Alcedo atthis</i>
Common linnet	<i>Carduelis cannabina</i>
Common starling	<i>Sturnus vulgaris</i>
Common swift	<i>Apus apus</i>
Common wood pigeon	<i>Columba palumbus</i>
Corn bunting	<i>Emberiza calandra</i>
Eurasian collared dove	<i>Streptopelia decaocto</i>
Eurasian jackdaw	<i>Corvus monedula</i>
Eurasian reed warbler	<i>Acrocephalus scirpaceus</i>
Eurasian sparrowhawk	<i>Accipiter nisus</i>
European goldfinch	<i>Carduelis carduelis</i>
European greenfinch	<i>Carduelis chloris</i>
European robin	<i>Erithacus rubecula</i>
Fieldfare	<i>Turdus pilaris</i>
Goldcrest	<i>Regulus regulus</i>
Great spotted woodpecker	<i>Dendrocopos major</i>
Great tit	<i>Parus major</i>
Green woodpecker	<i>Picus viridis</i>
Grey heron	<i>Ardea cinerea</i>
Hedge accentor	<i>Prunella modularis</i>
Herring gull	<i>Larus argentatus</i>
House martin	<i>Delichon urbicum</i>

House sparrow	<i>Passer domesticus</i>
Lesser whitethroat	<i>Sylvia curruca</i>
Long-tailed Tit	<i>Aegithalos caudatus</i>
Mew gull	<i>Larus canus</i>
Northern lapwing	<i>Vanellus vanellus</i>
Pied wagtail	<i>Motacilla alba</i>
Redwing	<i>Turdus iliacus</i>
Song thrush	<i>Turdus philomelos</i>
Stock pigeon	<i>Columba oenas</i>
White stork	<i>Ciconia ciconia</i>
Winter wren	<i>Troglodytes troglodytes</i>
Yellowhammer	<i>Emberiza citrinella</i>

Legend

	Site Boundary
	Scrub
	Hard Standing
	Amenity Grassland
	Miscellaneous Garden Planting
	Discarded Debris
	Neutral Grassland
	Buildings/Structure
	Bare Ground/Construction Area
	Wet Ditch/Standing Water
	Trees
	Fence



CHALCROFT NURSERIES SITE

Phase 1 Habitat Plan

Date: March 2009

Job Ref: 09_238

Drawn: SW

Client: Orchard Enterprises (Southern) Ltd.

Scale: NTS

FIGURE 1