

**LAND ADJACENT TO SITE 4, HARTS FARM WAY,
HAVANT, HAMPSHIRE**

EXTENDED PHASE 1 ECOLOGICAL ASSESSMENT

Final Document

September 2014

Phase 1 and 2 Ecological Assessments • NVC • EclA • Management Plans • Protected Species Licensing
Habitats • Badger • Bats • Dormouse • Birds • Reptiles • Amphibians • Invertebrates • Riparian and Aquatic Species

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Appendix 1 Site Proposals

Appendix 2 Protected Species Legislation

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EXECUTIVE SUMMARY

- An extended Phase 1 ecological assessment was undertaken on 10th September 2014 at Land adjacent to Site 4, Harts Farm Way, Havant, Hampshire PO9 1HS. The proposals entail the installation of a 20MW generator compound, which will supply the national grid during shortages and emergencies.
- The ecological assessment, comprising an extended Phase 1 ecological survey, was undertaken to ascertain the potential for protected habitats and species to be present within the site.
- Land adjacent to Site 4, Harts Farm Way is situated on the outskirts of Havant, Hampshire, approximately 1.2km south-west of the town centre. The surrounding area is predominantly urban interspersed with small areas of agricultural land and woodland. The site lies approximately 0.6km from the coast.
- There are six statutory and 22 non-statutory designated sites of nature conservation situated within a 2km radius of the site. The ditch in the north of the site is linked to Hermitage Stream which feeds into Solent Maritime SAC and Chichester and Langstone Harbours SPA and Ramsar site.
- The site comprises an area of woodland interspersed with open areas dominated by scrub and tall ruderal vegetation. An industrial estate is present to the south, the A27 is present to the north, Hermitage Stream to the west and Brockhampton Road to the east.
- There is a low likelihood of badger utilising the site for sett construction and, accordingly, there are no anticipated impacts on badger associated with the proposals. However, not all areas of the site could be searched for badger evidence, therefore precautionary measures have been outlined;
- There is the potential for construction-related pollution incidents to occur on site and impact upon the ditch, Heritage Stream which ultimately feeds into the SPA/SAC/Ramsar south of the site. Suitable pollution prevention guidelines should be implemented on site and it is recommended that a site specific pollution prevention plan be drawn up.
- Removal of trees could cause harm to individual bats or the destruction of roosts. The development will also reduce the amount of available foraging habitat. There will be increased lighting and human presence post-development. Further survey is therefore recommended.

- Clearance of trees and scrub could cause harm to breeding birds if undertaken during the breeding season. Mitigation has been recommended, either through timing of works or supervised clearance of vegetation.
- Although it is considered unlikely that the proposed works will have a significant impact on invertebrates, precautionary recommendations have been made in relation to saproxylic invertebrates such as stag beetle.
- If works have not commenced at the site by September 2016 or the proposals for the site change, an updating Phase 1 ecological assessment is recommended, as the ecological situation may have changed.

1.0 INTRODUCTION

1.1 Background

Ecological Survey & Assessment Limited (ECOSA) have been contracted by Peak Gen Power Ltd to undertake an extended Phase 1 ecological assessment at Land adjacent to Site 4, Harts Farm Way, Havant, Hampshire PO9 1HS. The site is centred on National Grid Reference (NGR) SU 7044 0592.

This report presents the findings of the Phase 1 ecological assessment carried out by ECOSA on 10th September 2014.

1.2 Aims and Scope of Report

This report is based on a Phase 1 field survey and desktop study which is aimed at assessing the suitability of the site and its immediate surrounds to support notable habitats and protected species. This information allows an initial assessment of the biodiversity value of the site to be made.

1.3 Site Setting and Description

Land adjacent to Site 4 is situated in the South Coast Plain & Hampshire Lowlands Natural Area, described by Natural England as follows¹:

"The landscape of the South Coast Plain and Hampshire Lowlands is split between the generally open, often featureless landscape of the coastal plain and the more varied landscape in the west. The Natural Area contains a number of nature conservation features. Although relatively small in extent, the south-facing slopes of Portsdown Hill support some high quality chalk grassland, and the chalk rivers of the Itchen and Test flow through the Natural Area, supporting fine examples of threatened habitat and several key species. The floodplains of the Rivers Test and Itchen contain some botanically rich neutral grassland and elsewhere in the Natural Area fen and fen-meadows occur, especially where chalk springs arise at the foot of the downs."

The site is situated on the outskirts of Havant, Hampshire, approximately 1.2km south-west of the town centre.

The surrounding area is dominated by urban development associated with Havant, Cosham, Waterlooville and Portsmouth, interspersed with small areas of agricultural land and woodland. The site lies approximately 0.6km from the coast and is close to both Langstone Channel and Emsworth Channel.

¹ Natural Areas are defined by Her Majesty's Stationery Office as 'biogeographic zones which reflect the geological foundation, the natural systems and processes and the wildlife in different parts of England, and provide a framework for setting objectives for nature conservation' (Biodiversity: The UK Steering Group Report, HMSO, 1995).

The site comprises an area of woodland interspersed with open areas dominated by scrub and tall ruderal vegetation. To the south of the site lies an industrial estate, while directly to the north is the A27. The woodland continues to the east and west, until it meets Hermitage Stream approximately 100m to the west and Brockhampton Road approximately 500m to the east.

1.4 Site Proposals

The proposals entail the installation of a 20MW generator compound, which will supply the national grid during shortages and emergencies (See **Appendix 1**, Peak Gen Power Ltd. Compound Layout A3 Drawing No. HV-SP-01). The timing of works was not known at the time of writing this report, however, the planning application is due to be submitted in 2014.

2.0 METHODS

2.1 Introduction

This section details the methods used during the Phase 1 ecological assessment undertaken at Land adjacent to Site 4, Havant, Hampshire.

2.2 Desk-Based Assessment Methods

2.2.1 Biological Records Centre

Hampshire Biodiversity Information Centre (HBIC) was consulted for information on non-statutory designated sites and protected and notable species within a 2km radius of the site.

2.2.2 Multi-Agency Geographic Information for the Countryside (MAGIC)

The Multi-Agency Geographic Information for the Countryside (MAGIC)² database was accessed on 29th August 2014 in order to establish the presence of statutory designated sites located within the vicinity of the site. This included a search for all internationally designated sites such as Special Protection Areas (SPAs), Special Areas of Conservation (SACs) and Ramsars within 2km of the site and a search for nationally designated sites including Sites of Special Scientific Interest (SSSIs), Local Nature Reserves (LNRs) and National Nature Reserves (NNRs) within 2km of the site.

2.3 Phase 1 Field Assessment

The Phase 1 ecological field survey was carried out on 10th September 2014. The survey involved a walkover of the site to identify the habitat types present and to record evidence of protected species, with particular reference to badger *Meles meles*, bats, dormouse *Muscardinus avellanarius*, breeding birds, reptiles, great crested newt *Triturus cristatus* and terrestrial invertebrates. Details of the species-specific survey methods are given below.

2.3.1 Vegetation

An assessment was made of all areas of vegetation within the site using the standardised Phase 1 survey methodology³. This involved a walkover survey to identify broad vegetation types, which were then classified against Phase 1 habitat types. A list of characteristic plant species for each vegetation type was also compiled.

2.3.2 Badger

The survey involved a detailed investigation of the site to identify evidence of badger residence, foraging or territorial activity. Particular emphasis was placed on locating

² <http://defra.magic.gov.uk>

³ Handbook for Phase 1 habitat survey: A technique for environmental audit – Field manual (2003), *Joint Nature Conservation Committee (JNCC)*

badger setts, paths, and signs of territorial activity such as latrine sites both on site and within immediately adjacent areas where access was possible.

2.3.3 Bats

An assessment was made of the suitability of trees on the site and immediately on the site boundary to support roosting bats based on the presence of features such as holes, cracks, splits, loose bark and ivy cladding. An assessment was made of the suitability of the site and the surrounding landscape to support foraging and/or commuting bat species. The survey conformed to current Bat Conservation Trust guidelines⁴.

2.3.4 Dormouse

The assessment for the potential of the site to support dormouse was based on an assessment of habitat features that may indicate that dormice are present on the study area. This includes the presence of food sources such as common hazel *Corylus avellana* and honeysuckle *Lonicera periclymenum*. Additionally, the species requires a continuum of food supply so that habitat structure, diversity and connectivity to adjacent areas of woodland/scrub are important features for determining the potential presence of dormice.

2.3.5 Breeding Birds

The assessment of breeding birds on the site was based on the suitability of habitat present, evidence of nesting such as old or currently active nests and the presence of bird species that may potentially nest within the available habitat.

2.3.6 Reptiles

The reptile survey was based on an assessment of the suitability of habitat present within the site to support a population of common reptiles. Reptiles particularly favour scrub and grassland interfaces and the presence of these is a good indication that reptiles may be present on site. In addition, reptiles may utilise features such as bare ground for basking, tussocky grassland for shelter and compost heaps and rubble piles for breeding and/or hibernating.

2.3.7 Great Crested Newt

The assessment of the site to support great crested newts included establishing the presence of suitable aquatic habitats such as ponds within or adjacent to the site and the presence of suitable terrestrial habitat. Ponds that are densely shaded, highly eutrophic or that contain fish are likely to be less suitable for this species.

In addition, online mapping resources at a minimum scale of 1:25,000 were used to identify the presence of ponds or other waterbodies within a 500 metre (m) radius of

⁴ Hundt L (2012) *Bat Surveys: Good Practice Guidelines*, 2nd edition, Bat Conservation Trust (BCT)

the site. The 500m is a standardised search radius to assist in the assessment of the potential of a site and its surrounding habitat to support this species, based on current Natural England guidance⁵.

2.3.8 Terrestrial Invertebrates

An assessment was made of the site for its potential value to support diverse communities of invertebrates or any Biodiversity Action Plan (BAP) or scarce species. The assessment was made based on the presence of habitat features which may support important invertebrate communities. These features include, for example, an abundance of dead wood, the presence of diverse plant communities, the presence of varied woodland structure and sunny woodland edges with a diverse flora, presence of ponds and water courses and the presence of free draining soil exposures. During the Phase 1 survey there was no attempt made to identify species present and where a site supports features that may be of importance to invertebrates then further Phase 2 surveys may be required to assess the importance of the site.

2.4 Initial Protected Species Assessment

Details of the assessment criteria used to determine the ecological value of on-site attributes during the Phase 1 survey is outlined below. During a Phase 1 survey the assessment criteria is based on the potential for the site to support the species considered, this is usually based on the on-site habitat features and their suitability for the species considered. However, in many cases Phase 2 surveys will be required to assess the status of species and hence the importance of a population at the site, therefore the assessment of value should be considered a provisional assessment.

2.5 Criteria used to Assess Ecological Potential

Table 1 defines the criteria used to assess the potential the site, and its trees to support protected species, based on the habitat characteristics of the site.

⁵ Great Crested Newt Mitigation Guidelines, Natural England, August 2001.

Table 1: Criteria used to assess ecological potential

	Bats ⁶	Other Protected Species ⁷
	Tree Assessment	
Species Present	In some instances, bat presence can be confirmed from trees e.g. where staining or droppings are visible; where roosting bats have been observed entering/emerging from a tree; or where roosting bats can be heard.	The presence of a protected species can sometimes be confirmed by evidence recorded, for example guard hairs or latrines for badger or hazel nuts gnawed in the characteristic style for dormice.
	If species are likely to be affected by the proposals, further Phase 2 surveys will be required to establish the status of the species present.	
High Potential	Trees with features such as loose bark, splits and deep or extensive holes suitable for roosting bats. High potential trees are generally large and/or mature specimens.	On-site habitat is of high quality for a species or species group. The site is within or near a geographic stronghold. Good quality surrounding habitat and good connectivity.
	If species are likely to be affected by the proposals, further Phase 2 surveys will be required to establish the presence/likely absence of the species.	
Medium Potential	This category includes trees with some interest for tree-roosting bats such as broken snags, some flaking bark, a covering of ivy or shallow holes.	On-site habitat is of moderate quality, providing most of the species/species group requirements. Limiting factors may include small habitat area or disturbance.
	If species are likely to be affected by the proposals, further Phase 2 surveys will be required to establish the presence/likely absence of the species.	
Low Potential	Low potential trees have some, although generally limited potential to support tree-roosting bats, or ivy may obscure roost features.	On-site habitat is of poor to moderate quality for the species or group. Presence cannot be discounted on the basis of distribution, isolation, surrounding habitats, etc.
	If species are likely to be affected by the proposals, further Phase 2 surveys will be required to establish the presence/likely absence of the species.	
Negligible Potential	Trees that provide few or no features with bat roosting potential.	Site includes very limited or poor quality habitat for the species /group; surrounding habitat is unlikely to support wider populations.
	Further Phase 2 surveys are unlikely to be required as species is unlikely to be present.	

⁶ The criteria are an attempt to qualify the potential for a given tree to support roosting bats and are to a degree subjective. Bats may make use of a single feature on an otherwise unsuitable tree and therefore an assessment of bat potential cannot solely be based on the quantity of potential roost features present.

⁷ Badger, dormouse, breeding birds, reptiles, great crested newt and terrestrial invertebrates.

2.6 Phase 1 Survey Timing and Weather Conditions

The extended Phase 1 ecological survey was carried out by Georgina Timmis of ECOSA on 10th September 2014. The weather conditions were sunny with approximately 60% cloud cover, an ambient temperature of 20°C and a light breeze.

2.7 Phase 1 Survey Equipment

During the Phase 1 survey the surveyor was equipped with 10x40 binoculars, a high powered torch and a digital camera.

2.8 Phase 1 Survey Limitations

Not all potential bat roosting features are accessible to the surveyor, e.g. gaps beneath roof materials or holes or cracks in trees, and therefore assessments are based upon the potential for these features to provide suitable roosting opportunities.

It is not always possible to provide definitive assessments of a species' presence/likely absence at a site and so in the absence of direct evidence, assessments and recommendations are based on the presence of suitable habitat within/adjacent to a site and the results of species records within the desk study data.

3.0 RESULTS

3.1 Introduction

This section details the results of the extended Phase 1 ecological assessment undertaken at Land adjacent to Site 4, Havant, Hampshire during September 2014.

3.2 Desktop Study

3.2.1 Protected Species

Results from HBIC showed that a number of species have been recorded within a 1km radius of the site. These are discussed further within the relevant results section, below⁸.

3.2.2 Statutory and Non-statutory Designated Sites

The MAGIC website search revealed that there are six statutory and 22 non-statutory designated sites of nature conservation situated within a 2km radius of the site. Details of statutory designated sites are provided in **Table 2**. Details of non-statutory designated sites are provided in **Table 3**.

Table 2: Designated sites located within a 2km radius of the Land adjacent to Site 4, Havant

Designation	Name	Approximate Relative Location	Reason for Designation
Ramsar Site	Chichester and Langstone Harbours	600m south of the site	The site comprises two large, interconnected sheltered estuarine basins providing extensive intertidal mud and sand flats with eelgrass <i>Zostera</i> spp. beds, large areas of mixed saltmarsh and extensive cord-grass <i>Spartina</i> spp. swards in an advanced state of degeneration. Fringing habitats include shingle spits, saline, brackish and freshwater lagoons, coastal grazing marsh and deciduous woodland. The site supports important overwintering populations of migratory waterfowl.
Site of Special Scientific Interest (SSSI)	Langstone Harbour	600m south of the site	Langstone Harbour is a tidal basin which at high water resembles an almost landlocked lake. At low water extensive mud flats are exposed, drained by three main channels which unite to make a common and narrow exit to the sea. The harbour includes one of the largest areas of mixed saltmarsh on the south coast, and extensive cord-grass <i>Spartina anglica</i> marsh in an advanced state of degeneration. The Site of Special Scientific Interest including Farlington Marshes, a peninsula of grassland and marsh on reclaimed tidal silt protected by a sea wall; and a similar but much smaller area at Southmoor in the north-east of the harbour. The harbour is of international importance as

⁸ The full data set is available on request from ECOSA.

Table 2: Designated sites located within a 2km radius of the Land adjacent to Site 4, Havant

Designation	Name	Approximate Relative Location	Reason for Designation
			a rich intertidal system supporting high densities of intertidal invertebrates and large populations of migrant and overwintering waders and wildfowl, dependent upon them and upon the extensive beds of eelgrass <i>Zostera</i> species. The <i>Zostera angustifolia</i> and <i>Z. noltii</i> beds are among the largest in Britain.
Special Area of Conservation (SAC)	Solent Maritime	600m south of the site	Annex I habitats that are a primary reason for selection of this site: Estuaries: The Solent encompasses a major estuarine system on the south coast of England with four coastal plain estuaries (Yar, Medina, King's Quay Shore, Hamble) and four bar-built estuaries (Newtown Harbour, Beaulieu, Langstone Harbour, Chichester Harbour). Spartina swards (<i>Spartinion maritimae</i>): Solent Maritime is the only site for smooth cord-grass <i>Spartina alterniflora</i> in the UK and is one of only two sites where significant amounts of small cord-grass <i>S. maritima</i> are found. Atlantic salt meadows (<i>Glaucopuccinellietalia maritimae</i>): The Solent contains the second-largest aggregation of Atlantic salt meadows in south and south-west England. Solent Maritime is a composite site composed of a large number of separate areas of saltmarsh.
Special Protection Area (SPA)	Chichester and Langstone Harbours	600m south of the site	Chichester and Langstone Harbours are located on the south coast of England in Hampshire and West Sussex. They are large, sheltered estuarine basins comprising extensive sand- and mud-flats exposed at low tide. The two harbours are joined by a stretch of water that separates Hayling Island from the mainland. Tidal channels drain the basin and penetrate far inland. The mud-flats are rich in invertebrates and also support extensive beds of algae, especially <i>Enteromorpha</i> species, and eelgrasses <i>Zostera</i> spp. The basin contains a wide range of coastal habitats supporting important plant and animal communities. The site is of particular significance for waterbirds, especially in migration periods and in winter. It also supports important colonies of breeding terns.

Table 2: Designated sites located within a 2km radius of the Land adjacent to Site 4, Havant

Designation	Name	Approximate Relative Location	Reason for Designation
Local Nature Reserve (LNR)	Farlington Marshes	1.5km west of the site	Farlington Marshes is the Wildlife Trust's oldest nature reserve. It is 125 hectares (308 acres) of flower-rich grazing marsh on the northern shore of Langstone Harbour between Portsmouth and Havant. Farlington is internationally important for the bird populations that it supports, as well as being a blaze of colour in spring and summer with many flowers and butterflies.
SSSI	Chichester Harbour	1.8km south-east of the site	Chichester Harbour is a large estuarine basin in which at low water extensive mud and sandflats are exposed, drained by channels which unite to make a common exit to the sea. The site is of particular significance for wintering wildfowl and waders and also breeding birds both within the harbour and in the surrounding permanent pasture fields and woodlands. There is a wide range of habitats which have important plant communities.

Table 3: Non-statutory Designated sites located within a 2km radius of the Land adjacent to Site 4, Havant

Designation	Name	Approximate Relative Location	Reason for Designation
Site of Importance for Nature Conservation (SINC)	Broadmarsh Playing Field	0.3km west of the site	Sites which regularly support a significant population of a species which has a restricted distribution or has substantially declined in population or range. Such sites may be used seasonally or for only one part of a species life-cycle. Site supports dark-bellied brent goose.
SINC	Manor Farm A	0.3km north-west of the site	Sites which regularly support a significant population of a species which has a restricted distribution or has substantially declined in population or range. Such sites may be used seasonally or for only one part of a species life-cycle. Site supports dark-bellied brent goose, a UKBAP species.

Table 3: Non-statutory Designated sites located within a 2km radius of the Land adjacent to
Site 4, Havant

Designation	Name	Approximate Relative Location	Reason for Designation
SINC	Farlington Marshes Grassland (North-East)	0.9km south-west of the site	Agriculturally unimproved grasslands ⁹ Semi-natural coastal and estuarine habitats, including saltmarsh, intertidal mudflats, sand dunes, shingle, brackish ponds, grazing marsh and maritime grasslands
SINC	Fields off Havant Road	1km west of the site	<u>SINC Criteria:</u> Sites which support one or more notable species ¹⁰ . (Site supports dwarf sponge <i>Euphorbia exigua</i>) Sites which regularly support a significant population of a species which has a restricted distribution or has substantially declined in population or range. Such sites may be used seasonally or for only one part of a species life-cycle. Site supports dark-bellied brent goose, a UKBAP species.
SINC	Southmoor Reserve	1.1km south-east of the site	<u>SINC Criteria:</u> Agriculturally unimproved grasslands ⁹ Semi-natural coastal and estuarine habitats, including saltmarsh, intertidal mudflats, sand dunes, shingle, brackish ponds, grazing marsh and maritime grasslands. Fens, flushes, seepages, springs, inundation grasslands etc. that support a flora and fauna characteristic of unimproved and waterlogged (seasonal or permanent) conditions. Sites which support one or more notable species ¹⁰ (Site supports divided sedge <i>Carex divisa</i>)

⁹ Agriculturally unimproved grassland - grassland that is composed of a mixed assemblage of indigenous species in essentially semi-natural communities which has been allowed to develop without the major use of herbicides or inorganic fertilisers.

¹⁰ Notable species include Red Data Book species, Nationally Scarce species, species covered under Schedules 1,5 and 8 of the Wildlife & Countryside Act 1981, Annex 1 of the EC Bird Directive 79/409 and Annex II & IV of the EC Directive 92/43/EEC 'The Habitats Directive', and those covered by the Bern, Bonn and Ramsar Conventions. Notable species will also include species which are considered 'County Rare' or 'County Scarce'. County Rare = those species recorded in 1% or less tetrads in Hampshire or either of the two vice-counties (11 & 12) separately. County Scarce = 4% or less tetrads.

Table 3: Non-statutory Designated sites located within a 2km radius of the Land adjacent to
Site 4, Havant

Designation	Name	Approximate Relative Location	Reason for Designation
SINC	Southmoor - Big Field (south edge)	1.1km south-east of the site	Semi-natural coastal and estuarine habitats, including saltmarsh, intertidal mudflats, sand dunes, shingle, brackish ponds, grazing marsh and maritime grasslands.
SINC	Forty Acres Farm B	1.1km west of the site	Sites which regularly support a significant population of a species which has a restricted distribution or has substantially declined in population or range. Such sites may be used seasonally or for only one part of a species life-cycle. Site supports dark-bellied brent goose <i>Branta bernicla bernicla</i> .
SINC	Camp Down Grassland Remnants	1.3km north-west of the site	Grasslands which have become impoverished through inappropriate management but which retain sufficient elements of relic unimproved grassland to enable recovery.
SINC	Littlepark Wood (East)	1.4km north-west of the site	Ancient semi-natural woodlands Other semi-natural woodland that comprises important community types of restricted distribution in the County, such as yew woods and alder swamp woods.

Table 3: Non-statutory Designated sites located within a 2km radius of the Land adjacent to
Site 4, Havant

Designation	Name	Approximate Relative Location	Reason for Designation
SINC	South of Fort Purbrook & adjacent Farlington Redoubt	1.5km north-west of the site	Semi-improved grasslands which retain a significant element of unimproved grassland. Grasslands that have been degraded through inappropriate management but which retain sufficient elements of relic grassland to enable recovery. Sites which support one or more notable species¹⁰. (Site supports small blue <i>cupido minimus</i> and autumn lady's-tresses <i>Spiranthes spiralis</i>)
SINC	Neville's Park Areas 4-10	1.6km north of the site	Agriculturally unimproved grasslands⁹ Other woodland where there is a significant element of ancient semi-natural woodland surviving. Other semi-natural woodland that comprises important community types of restricted distribution in the County, such as yew woods and alder swamp woods. Grasslands which have become impoverished through inappropriate management but which retain sufficient elements of relic unimproved grassland to enable recovery.
SINC	Wade Court Park	1.6km south-east of the site	Sites which regularly support a significant population of a species which has a restricted distribution or has substantially declined in population or range. Such sites may be used seasonally or for only one part of a species life-cycle. Sites which support an outstanding assemblage of species. Site supports a colony of little egret <i>Egretta garzetta</i>.
SINC	East and West Gillman Road	1.6km north-west of the site	Semi-improved grasslands which retain a significant element of unimproved grassland. Sites which support one or more notable species¹⁰ (Site supports corn parsley <i>Petroselinum segetum</i> and flattened meadow-grass <i>Poa compressa</i>)

Table 3: Non-statutory Designated sites located within a 2km radius of the Land adjacent to
Site 4, Havant

Designation	Name	Approximate Relative Location	Reason for Designation
SINC	Field East of Farlington Redoubt (North)	1.6km north-west of the site	Grasslands which have become impoverished through inappropriate management but which retain sufficient elements of relic unimproved grassland to enable recovery.
SINC	Portsmouth City Golf Course Copse	1.6km north-west of the site	Other woodland where there is a significant element of ancient semi-natural woodland surviving. Sites which support one or more notable species ¹⁰ (Site supports fly orchid <i>Ophrys insectifera</i>)
SINC	Littlepark Wood (West)	1.7km north-west of the site	Ancient semi-natural woodlands Other semi-natural woodland that comprises important community types of restricted distribution in the County, such as yew woods and alder swamp woods. Sites which support one or more notable species ¹⁰ . (Site supports dormouse)
SINC	Portsmouth Golf Course East	1.8km north-west of the site	Semi-improved grasslands which retain a significant element of unimproved grassland. Grasslands which have become impoverished through inappropriate management but which retain sufficient elements of relic unimproved grassland to enable recovery.

Table 3: Non-statutory Designated sites located within a 2km radius of the Land adjacent to
Site 4, Havant

Designation	Name	Approximate Relative Location	Reason for Designation
SINC	Langstone Mill Pond	1.8km south- east of the site	Semi-natural coastal and estuarine habitats, including saltmarsh, intertidal mudflats, sand dunes, shingle, brackish ponds, grazing marsh and maritime grasslands. Fens, flushes, seepages, springs, inundation grasslands etc. that support a flora and fauna characteristic of unimproved and waterlogged (seasonal or permanent) conditions. Sites which support one or more notable species ¹⁰ (Site supports large-leaved lime <i>Tilia platyphyllos</i>)
SINC	Fort Purbrook Paddock 3 (Havant)	1.9km north- west of the site	Semi-improved grasslands which retain a significant element of unimproved grassland.
SINC	Fort Purbrook Paddock 4 (Havant)	1.9km north- west of the site	Semi-improved grasslands which retain a significant element of unimproved grassland.
SINC	Gundymoor Wood (Main)	1.9km north- west of the site	Ancient semi-natural woodlands

Table 3: Non-statutory Designated sites located within a 2km radius of the Land adjacent to Site 4, Havant

Designation	Name	Approximate Relative Location	Reason for Designation
SINC	Warblington Castle Farm West	1.9km east of the site	Sites which regularly support a significant population of a species which has a restricted distribution or has substantially declined in population or range. Such sites may be used seasonally or for only one part of a species life-cycle. Site supports dark-bellied brent goose.

3.3 Vegetation Survey Results

The vegetation within the site is described here in general terms using Phase 1 habitat survey terminology and referring to dominant, characteristic and other noteworthy species in each vegetation type within the survey area. The habitat types on site consist of:

- Broadleaved woodland;
- Scrub;
- Tall ruderal; and
- Wet ditch.

3.3.1 Broadleaved Woodland

The majority of the site comprises broadleaved woodland with a limited understorey and ground flora (**Figure 1**). Tree species recorded include small-leaved lime *Tilia cordata*, Norway maple *Acer platanoides*, hawthorn *Crataegus monogyna*, ash *Fraxinus excelsior*, sycamore *Acer pseudoplatanus*. Elder *Sambucus nigra*, bramble *Rubus fruticosus*, nettle *Urtica dioica*, dogrose *Rosa canina*, ivy *Hedera helix*, ground ivy *Glechoma hederacea*, and traveller's joy *Clematis vitalba* and bryophytes *Bryophyta* spp. were recorded within the understorey.



Figure 1: Broadleaved woodland

3.3.2 Scrub

A wide expanse of scrub is present in the south of the site dominated by bramble and nettle (**Figure 2**).



Figure 2: Large area of scrub habitat

3.3.3 Tall Ruderal

A glade is present in the centre of the site which is dominated by ruderal vegetation. Species present include rosebay willowherb *Epilobium angustifolium*, bristly oxtongue *Helminthotheca echinoides*, ivy, broadleaved dock *Rumex obtusifolius*, ragwort *Jacobaea vulgaris*, white dead nettle *Lamium album*, buddleia *Buddleia* sp., dogwood *Cornus sanguinea*, hedge bindweed *Calystegia sepium*, lords and ladies *Arum maculatum*, cleavers *Galium aparine*, primrose *Primula vulgaris*, scarlet pimpernel *Anagallis arvensis*, traveller's joy, wood avens *Geum urbanum*, Canadian fleabane *Conyza canadensis*, and teasel *Dipsacus sylvestris*.

3.3.4 Wet Ditch

A ditch is present along the northern boundary of the site (**Figure 3**). The ditch is stagnant and culverted in places (**Figure 4**) and is likely to receive run-off from the adjacent by-pass. The banks are fairly well vegetated with woodland understorey species as well as bracken *Pteridium* sp., hart's-tongue fern *Asplenium scolopendrium* and buddleia where it runs alongside the ruderal habitat in the centre of the site. The

ditch is linked to Hermitage Stream which feeds into Solent Maritime SAC and Chichester and Langstone Harbours SPA and Ramsar site.



Figure 3: Wet ditch along the northern boundary of the site



Figure 4: Culvert near the centre of the northern boundary of the site

3.4 Summary

The site comprises an area of woodland interspersed with scrub and tall ruderal vegetation. These habitats comprise common and widespread species and are isolated and limited in extent. The site is considered to be of **low ecological value** overall.

3.5 Badger Survey Results

Consultation with HBIC revealed no records of badger within 2km of the site. No setts or badger foraging signs were noted during the survey, however, a large expanse of the site was covered with dense scrub which could provide suitable landscape for a badger sett. The woodland habitat is suitable for foraging badger. However, the site is isolated from the surrounding landscape by significant barriers such as busy roads and a wide river, and therefore accessible suitable habitat is limited in extent. The site is therefore considered to have **low potential** for resident badger and **low potential** for foraging/commuting badger.

3.6 Bat Survey Results

3.6.1 Bats – Tree Assessment

No signs of tree roosts were recorded during the survey, although several of the trees on site have potential to support roosting bats due to the presence of ivy cladding and deadwood. Not all of the trees could be surveyed in detail during the Phase 1 survey due to time constraints. Consultation of HBIC records revealed the presence of noctule *Nyctalus noctula*, which primarily use tree roosts. The site is therefore considered to have **medium potential** for tree roosting bats.

3.6.2 Foraging and Commuting Habitat

Consultation with HBIC revealed that a number of sensitive records of bats are present in the 10km grid squares within 2km of the site. Species include common pipistrelle

Pipistrellus pipistrellus, soprano pipistrelle *Pipistrellus pygmaeus*, brown long-eared bat *Plecotus auritus*, serotine *Eptesicus serotinus*, noctule, Daubenton's bat *Myotis daubentonii*, Whiskered bat *Myotis mystacinus*, Whiskered/Brandt's bat *Myotis mystacinus/brandtii*, and Natterer's bat *Myotis nattereri*. The combination of woodland, scrub and ruderal vegetation provides excellent foraging/commuting habitat for bats due to the provision of linear habitat features, such as the woodland edge, and a large amount of invertebrate prey supported by the trees, scrub and ruderal vegetation. The site is therefore considered to have **high potential** for foraging/commuting bats.

3.7 Dormouse Survey Results

There are four records of dormouse within 2km of the site between 2007 and 2009, with a maximum count of three individuals. The location of these records are sensitive but likely to be associated with the Littlepark Wood SINC designated in part due to the presence of this species. The SINC is separated from the application site by a number of significant barriers including busy roads, urban areas, rivers and large extents of unsuitable habitat. The habitat on site is generally unsuitable for dormouse due to the lack of woodland understorey and diversity of fruit bearing species as a food resource. In addition, the woodland is isolated from the surrounding habitat by the A27 to the north, Brockhampton Road to the east, Harts Farm Way to the south and Hermitage Stream to the west and is restricted in its size. The site is therefore considered to have **negligible potential** for dormouse.

3.8 Breeding Bird Survey Results

Common bird species including wood pigeon *Columba palumbus* and blackbird *Turdus merula* were recorded during the survey, however, no evidence of nesting birds was recorded. Consultation with HBIC revealed a large number of bird records. Records include common species such as brambling *Fringilla montifringilla*, bullfinch *Pyrrhula pyrrhula*, common crossbill *Loxia curvirostra*, Eurasian siskin *Carduelis spinus*, song thrush *Turdus philomelos* and winchat *Saxicola rubetra* and a large number of wading bird species including brent goose *Branta bernicla*. There are a number of sites in the area designated for brent goose and wading birds, including the area directly adjacent to the western boundary of the application site which had positive records in the 2002 Brent Goose Strategy¹¹. However, the site itself is dominated by woodland and scrub and is therefore not suitable for supporting these species. The habitats on site are suitable for supporting nesting birds, however, while some of the species recorded may use the site on occasion, the heavy noise disturbance caused by the adjacent A27 suggest that it is unlikely birds would breed here. The site is therefore considered to have **low potential** to support nesting birds.

¹¹ Footprint Ecology (2002) Brent Goose Strategy

3.9 Reptile Survey Results

Consultation with HBIC revealed a number of records of common reptile species; slow-worm *Anguis fragilis*, grass snake *Natrix natrix* and common lizard *Zootoca vivipara*, within 2km of the site. Notably, a large number of the available records represent slow-worm present within habitat along the A27 to the north of the site, including several records directly adjacent. The majority of habitat on site is very shaded, being either woodland with a dense canopy or dense scrub. However, given the recorded presence of reptiles directly adjacent to the site, the use of the site by reptiles for foraging or hibernation cannot be ruled out. The site is therefore considered to have **low potential** for reptiles.

3.10 Great Crested Newt Survey Results

HBIC returned no recorded of GCN from a 2km search area around the site. This could be due to an absence of GCN records rather than the species within the search area. Consultation of OS mapping showed that there are three waterbodies within 500m of the site boundary. Two of these are separated from the site by the A27, a major barrier to dispersal and therefore it is very unlikely that great crested newt would disperse into the site area from these ponds. The third waterbody is approximately 270m east of the site and is linked to the site by scrub and woodland habitat. A fourth waterbody was recorded during the field survey. This is situated less than 50m south of the site and linked to the site by tall ruderal habitat. The site provides suitable terrestrial habitat for great crested newt, comprising woodland, scrub and tall ruderal.

The area of land around the site is isolated from the surrounding habitat by the A27 to the north, Brockhampton Road to the east, Harts Farm Way to the south and Hermitage Stream to the west, and the two ponds within these barriers are generally considered to be unsuitable for newts based on lack of suitable aquatic vegetation, and presence of predators such as sticklebacks *Gasterosteus aculeatus*. The pond 270m east of the site has previously been surveyed in support of a planning application (Havant Borough Council Ref. APP/13/00911) for a neighbouring site and no great crested newt were recorded¹². The site is therefore considered to have **negligible potential** for great crested newt.

3.11 Terrestrial Invertebrates

There are records of a number of notable invertebrate species within 2km of the site. There are over 15 records of stag beetle within 2km of the site, the nearest being approximately 450m east of the site in 2002 and the most recent being in 2010

¹² ECOSA Ltd (2013) Site 4, Harts Farm Way, Havant, Hampshire Ecological Assessment Final Document 160813, Winchester

approximately 1.8km east of the site. All the records are associated with a built up residential area to the north of the A27.

A number of other notable species were recorded within 2km of the site, however, the common and widespread species that make up the on-site habitat suggest that the site has **low potential** to support rare species or notable assemblages.

4.0 EVALUATION, IMPACTS AND RECOMMENDATIONS

4.1 Introduction

This section presents the conclusions of the extended Phase 1 ecological assessment. It provides an initial assessment of the likely ecological constraints to the proposed development and detailed recommendations for any further survey work or mitigation measures considered necessary. An outline of protected species legislation relevant to the findings of this report is provided in **Appendix 2**.

4.2 Site Evaluation

The site comprises an area of woodland interspersed with scrub and tall ruderal vegetation. These habitats comprise common and widespread species and are isolated and limited in extent. Therefore the site is considered to be of low ecological value overall. However, the site does have potential to support roosting and foraging bats, and common species as reptile, as well as some limited potential for resident and foraging badger and nesting birds. The ditch in the north of the site is linked to Hermitage Stream which feeds into Solent Maritime SAC and Chichester and Langstone Harbours SPA and Ramsar site.

4.3 Potential Impacts of Development

The proposed development entails the installation of a 20MW generator compound. This will result in the loss of the woodland and areas of scrub and tall ruderal vegetation. The potential ecological impacts are:

- There is the potential for construction-related pollution incidents to occur on site and impact upon the ditch, Heritage Stream which ultimately feeds into the SPA/SAC/Ramsar south of the site.
- Not all areas of the site could be searched for badger evidence, due to the presence of dense bramble, risk of encountering setts on site during construction therefore cannot be ruled out;
- Removal of trees could cause harm to individual bats or the destruction of roosts. The development will also reduce the amount of available foraging habitat. There will be increased lighting post-development;
- Clearance of trees and scrub could cause harm to breeding birds if undertaken during the breeding season;

4.4 Outline of Recommendations

The following main recommendations are made to minimise the potential impacts:

- Suitable pollution prevention guidelines should be implemented on site and it is recommended that a site specific pollution prevention plan be drawn up. This should include pollution prevention measures in relation to the stream and lakes immediately north of the site and the natural springs. It is not considered necessary to undertake Habitat Regulations Screening as potential pollution prevention measures should provide an appropriate level of mitigation to avoid any impacts upon downstream Ramsar/SAC/SPA.
- It is recommended that the strip of woodland to the north of the site be retained and strengthened to retain connectivity between larger areas of woodland on either side of the application site. Additional planting should comprise similar native species to those currently present. New shrub and hedgerow planting should incorporate native tree and shrub species rather than cultivars;
- As the dense scrub habitat on site could not be fully investigated, clearance of scrub should be undertaken with caution. If any evidence of mammal excavations are found, works should immediately cease, an ecologist should be informed and further survey should be undertaken of the identified excavations. Additionally, in the unlikely event that a badger becomes trapped in excavations during construction works, a timber ramp should be inserted to allow the animal to escape of its own accord;
- It is recommended that a further preliminary tree roost assessment be undertaken in accordance with BCT Guidelines¹³ and that any trees identified as having bat roosting potential should be subject to climb and inspect surveys to identify and inspect potential roosting features. If any trees are found to have potential to support roosting bats following these surveys, further Phase 2 emergence/re-entry surveys may be required if removal of these trees cannot be avoided. These surveys should be undertaken between May and September. If a roost is present, a European Protected Species Mitigation (EPSM) licence is needed;
- Any lighting to be installed on the new development will comprise hooded luminaires directed away from vegetation. Ideally the bulbs will be LED and at the warmer end of the spectrum (e.g. avoiding blue or white light). LED lights emit much lower levels of UV and therefore have a lower impact on wildlife. The new lighting will be task related, and the lux level will be as low as possible to allow the task to be carried out safely and effectively. Guidance on task related lighting levels published by the Chartered Institution of Building Services Engineers (CIBSE) will be followed;

¹³ Hundt, L. (2012) Bat Surveys Good Practice Guidelines Second Edition. Bat Conservation Trust, London.

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- Vegetation clearance should be undertaken outside the breeding bird season of March to August, inclusive, or if not possible, an ecologist should be present no more than 24 hours prior to clearance to check vegetation. Active nests should be left with an undisturbed 5-10m buffer until nesting ends, which may impact the works programme;
 - While impacts on stag beetle are considered unlikely, as a precaution, any existing deadwood present should be removed carefully by hand and stacked in the retained areas of woodland on the borders of the site. Retention of deadwood created by tree removal in remaining areas of habitat would further enhance the site for saproxylic invertebrates such as stag beetle.

Table 4: Table of evaluations, impacts and recommendations for protected species at Land adjacent to Site 4

Ecological Feature	Summary	Potential Impacts of Development	Recommendations
Designated Sites	There are six statutory and 22 non-statutory designated sites of nature conservation situated within a 2km radius of the site. These are designated for their habitat value or notable flora/fauna. The ditch in the north of the site is linked to Hermitage Stream which feeds into Solent Maritime SAC and Chichester and Langstone Harbours SPA and Ramsar site.	The proposals will not result in any increased human activity at the site and therefore there will be no impacts as a result of visitor pressure. The majority of sites are designated for their habitat value or flora and the proposed works are unlikely to have any impact on these sites because plants are immobile and there is a minimum of 200m between these and the site, no floral is anticipated. Those sites designated for their fauna are designated for dormouse, wading birds and waterfowl and coastal invertebrates. Due to the habitats present there is negligible potential for any of these species to be impacted by the proposals. There is the potential for construction-related pollution incidents to occur on site and impact upon the ditch, Heritage Stream which ultimately feeds into the SPA/SAC/Ramsar south of the site.	Suitable pollution prevention guidelines should be implemented on site and it is recommended that a site specific pollution prevention plan be drawn up. This should include pollution prevention measures in relation to the stream and lakes immediately north of the site and the natural springs. It is not considered necessary to undertake Habitat Regulations Screening as potential pollution prevention measures should provide an appropriate level of mitigation to avoid any impacts upon downstream Ramsar/SAC/SPA.
Vegetation	The site comprises broadleaved woodland interspersed with scrub and tall ruderal vegetation. These habitats comprise common and widespread species, are isolated and limited in extent and are therefore considered to be of low ecological value overall.	The proposals will see the loss of an area of woodland, and scrub and tall ruderal vegetation. Due to the limited extent and isolated nature of these habitats, the impact of losing this area is considered low to negligible.	It is recommended that a strip of woodland to the north of the site be retained and strengthened to retain connectivity between larger areas of woodland on either side of the application site. Additional planting should comprise similar native species to those currently present. New shrub and hedgerow planting should incorporate native tree and shrub species rather than cultivars.

Ecological Feature	Summary	Potential Impacts of Development	Recommendations
Badger	The site is classed as having low potential for supporting resident badger. The woodland also provides suitable habitat for foraging badger. No signs of foraging or sett building were recorded during the survey, however, the dense scrub on site could not be fully investigated. The site is isolated by roads and a river and therefore suitable habitat within the wider area is limited in extent.	There is only a low likelihood of badger utilising the site for sett building and, accordingly, there are no anticipated impacts on badger associated with the proposals. However, not all areas of the site could be searched exhaustively for badger evidence, therefore caution should be taken in respect of this species.	As the dense scrub habitat on site could not be fully investigated, clearance of scrub should be undertaken with caution. If any evidence of mammal excavations are found, works should immediately cease, an ecologist should be informed and further survey should be undertaken of the identified excavations. In the unlikely event that a badger becomes trapped in excavations during construction works, a timber ramp should be inserted to allow the animal to escape of its own accord.

Ecological Feature	Summary	Potential Impacts of Development	Recommendations
Bats	While no evidence of bats was recorded, some trees within the woodland area were identified as having potential for roosting bats. The habitats on site contain linear features and are likely to support a good invertebrate population suitable for foraging and commuting bats. The site is therefore considered to have medium potential for roosting bats and medium potential for foraging/commuting bats. All bat species are fully protected under the Wildlife and Countryside Act 1981 (as amended); see Appendix 2 for details.	Removal of trees could cause harm to individual bats or the destruction of roosts. The development will also reduce the amount of available foraging habitat. There will be increased lighting and human presence at the site post-development.	It is recommended that a further preliminary tree roost assessment be undertaken in accordance with BCT Guidelines¹³ and that any trees identified as Category 1 or Category 1* should be subject to climb and inspect surveys to identify and inspect potential roosting features. If any trees are found to have potential to support roosting bats following these surveys, further Phase 2 emergence/re-entry surveys will be required. These surveys should be undertaken between May and September. If a roost is present, a European Protected Species Mitigation (EPSM) licence is needed. The landscape recommendations outlined above will help maintain suitable foraging/commuting habitat for bats. Any lighting to be installed on the new development will comprise hooded luminaires directed away from vegetation. Ideally the bulbs will be LED and at the warmer end of the spectrum (e.g. avoiding blue or white light). LED lights emit much lower levels of UV and therefore have a lower impact on wildlife. The new lighting will be task related, and the lux level will be as low as possible to allow the task to be carried out safely and effectively. Guidance on task related lighting levels published by the Chartered Institution of Building Services Engineers (CIBSE) will be followed.

Ecological Feature	Summary	Potential Impacts of Development	Recommendations
Dormouse	Woodland on and adjacent to the site have negligible potential for supporting dormice, lacking in ground cover and food plant species diversity that would provide food for this species throughout the season. The site and its immediate surrounds are isolated from the wider landscape by significant barriers including busy roads and a tidal river.	As dormice are unlikely to be present on or adjacent to the site, impacts to dormice at the site are considered to be negligible.	There are no recommendations for dormice.
Breeding Birds	The site offers habitat suitable for supporting common and widespread bird species during the breeding season. However, there was no evidence of nesting birds and the noise disturbance of the adjacent A27 is likely to discourage birds from nesting in this area. The site is therefore considered to have low potential overall.	Clearance of trees and scrub could cause harm to breeding birds if undertaken during the breeding season. All birds, their nests, eggs and young are legally protected; legislation is provided in Appendix 2 . Post-development, there will be a minor loss of nesting habitat.	Vegetation clearance should be undertaken outside the breeding bird season of March to August, inclusive, or if not possible, an ecologist should be present immediately prior to clearance to check vegetation. Active nests should be left with an undisturbed 5-10m buffer until nesting ends.
Reptiles	There are records of slow-worm immediately adjacent to the site, however, the majority of habitat on site is very shaded and therefore unlikely to be suitable for reptiles. Therefore the site is considered to have low potential for this species group overall.	There are no anticipated impacts in relation to reptiles.	There are no recommendations for reptiles.
Great Crested Newt	Habitat on site is suitable for great crested newt in their terrestrial phase. However, there are only two suitable waterbodies that are within 500m and not separated from the site by significant barriers. These ponds are considered to be generally unsuitable for great crested newt. There are no records of great crested newt within 2km of the site, and one of the ponds within 500m has been previously surveyed and no great crested newt were recorded. The site therefore has negligible potential for supporting this species.	There are no anticipated impacts associated with this species and the proposals.	There are no recommendations for great crested newt.

Ecological Feature	Summary	Potential Impacts of Development	Recommendations
Terrestrial Invertebrates	There are a large number of invertebrate records within 2km of the site, including a number of records of stag beetle nearby. However, the site supports low value habitats that are limited in extent, and is therefore considered to have low potential for supporting rare or notable invertebrate species or assemblages.	No significant impacts are considered likely to result from the proposed works.	While impacts on stag beetle are considered unlikely, as a precaution, any existing deadwood present should be removed carefully by hand and stacked in the retained areas of woodland on the borders of the site. Retention of deadwood created by tree removal in remaining areas of habitat would further enhance the site for saproxylic invertebrates such as stag beetle.

4.5 Updating Survey

If works have not commenced by September 2016, or the proposal for the site change significantly, it is recommended that the extended Phase 1 ecological assessment is updated. This is because many of the species considered during the current survey are highly mobile and the ecology of the site is likely to change over this period.

APPENDIX 1 Site Proposals

APPENDIX 2 Protected Species Legislation

European Protected Animals¹⁴ - Bats

In England, all bat species are fully protected under the Wildlife and Countryside Act 1981 through inclusion in Schedule 5. In addition, these species are protected under the Conservation of Habitats and Species Regulations 2010. Taken together, these legislative instruments make it illegal to carry out the following activities:

- Deliberately or recklessly capture or kill any wild animal of a European protected species;
- Deliberately or recklessly disturb any such animal;
- Deliberately or recklessly take or destroy eggs of any such wild animal;
- Damage or destroy a breeding site or resting place of such a wild animal; and
- Keep, transport, sell or exchange, or offer for sale or exchange, any live or dead wild animal of a European protected species, or any part of, or anything derived from such a wild animal.

Any activity that would result in a contravention of the above legislation would require a licence to avoid committing an offence. Natural England has powers to grant a licence for the following purposes:

- Preserving 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; or
- Preventing the spread of disease; or
- Preventing serious damage to livestock, foodstuffs for livestock, crops, vegetables, fruit, growing timber or any other form of property or to fisheries.

The Conservation of Habitats and Species Regulations contain three "derogation tests" which must be applied by Natural England when deciding whether to grant a licence to a person carrying out an activity which would harm an European protected species. For development activities this licence is obtained after Planning Permission has been obtained. The three tests are that:

¹⁴ Summarised from www.defra.gov.uk

- The activity to be licensed must be for imperative reasons of overriding public interest or for public health and safety;
- There must be no satisfactory alternative; and
- Favourable conservation status of the species must be maintained.

A recent court judgment¹⁵ makes it clear that, notwithstanding the licensing regime, the Local Planning Authority must also address its mind to these three tests when deciding whether to grant planning permission for a development which could harm a European protected species. A Local Planning Authority failing to do so would be in breach of Regulation 3(4) of the Conservation (Natural Habitats, &c.) Regulations 1994 (revised in 2010 to become the Conservation of Habitats and Species Regulations) which requires all public bodies to have regard to the requirements of the Habitats Directive in the exercise of their functions.

In order to determine whether an activity requires a licence, Natural England advises that the guidance of a consultant ecologist is sought. However, Natural England offer the following advice as a guide:

- A licence is needed if the consultant ecologist, on the basis of survey information and specialist knowledge of the species concerned, considers that on balance the proposed activity is reasonably likely to result in an offence under regulation 39; or
- If the consultant ecologist, on the basis of survey information and specialist knowledge of the species concerned, considers that on balance the proposed activity is reasonably unlikely to result in an offence under regulation 39 then no licence is required. However, in these circumstances Natural England would urge that reasonable precautions be taken to minimise the effect on European protected species should they be found during the course of the activity. If they are found then work should cease and an application be made to the Wildlife Licensing Unit at Natural England, Bristol.

Badger

Badgers are protected under the *Protection of Badgers Act 1992* and the *Wildlife and Countryside Act 1981* and amendments. The purpose of the *Protection of Badgers Act 1992* is

¹⁵ Judgment handed down by His Honour Judge Waksman QC sitting as a judge of the High Court at the start of June 2009 in the case of *R (on the application of Simon Woolley) v Cheshire East Borough Council*. The judgment clarified for the first time the legal duty of a Local Planning Authority when determining a planning application for a development which may have an impact on European Protected Species ("EPS"), such as bats, great crested newts, dormice or otters.

to protect badgers from incidental effects of lawful activities and deliberate attempts to inflict injury or kill badgers. Under the Act it is illegal to:

- Wilfully kill, injure, take, possess or cruelly ill-treat a badger or attempt to do so;
- Interfere with a badger sett by damaging or destroying it;
- Obstruct access to, or any entrance of, a badger sett; and
- Disturb a badger when it is occupying a sett.

A badger sett is defined as '*any structure or place which displays signs indicating current use by a badger*'. This can include culverts, pipes and holes under sheds, piles of boulders, old mines and quarries etc. Natural England recommends that in addition to currently occupied setts, plans also consider the effect of development on seasonally-used setts as these may be in use by badgers when development starts⁸.

Badgers and Development and Licence Requirements

Badger Disturbance:

- Under the *Protection of Badgers Act 1992*, any activity causing disturbance of badgers when they are occupying a sett is an offence unless it is undertaken in accordance with the terms of a disturbance licence from Natural England. As the Act does not highlight what constitutes disturbance, English Nature (the predecessor of Natural England) provided advice on the types of development activities, and their proximity to setts, that would warrant a badger disturbance licence⁹. However, Natural England's new interim badger licensing guidelines⁸ do not refer to disturbance zones around setts for different types of development activities. This is largely due to uncertainty over what activities will disturb badgers and a lack of clarity over the legal interpretation of the word 'disturbance'. The current position appears to be that the need for a badger disturbance licence at a development site is at the discretion of the environmental consultant involved. Later in 2008, Natural England will publish their interpretation of what constitutes disturbance to badgers, which should assist with establishing what elements of a development would require licensing. Where work has the potential to damage a sett, then a sett interference licence would be required from Natural England.

Sett Interference:

- If necessary, it is possible to move badgers from a sett, but the difficulty/success of such actions depends upon the importance of the sett to that group of badgers

⁸ Natural England (2007). Badgers and Development: A Guide to Best Practice and Licensing (Interim Guidance Document).

⁹ English Nature (2002). Badgers and development. English Nature, Northminster House, Peterborough.

and whether a suitable alternative sett exists within their territory. For setts in 'current use' by badgers, a licence must be issued (by Natural England) before the badgers can be moved and/or the sett destroyed. In general, the smaller the sett, the less important it is likely to be to the continued survival of a group of badgers, and the more successfully the badgers can be excluded from it.

- Any attempt to move badgers by direct means (using exclusion fencing, for example) must be done responsibly, and with suitable expertise. The licensing procedure should ensure that the implications of such an action have been fully investigated, any mitigating measures have been undertaken, and that a person with suitable expertise carries out the operation.
- Badger licences are not generally issued during the period 1 December to 30 June inclusive and therefore development works need to be carefully timed to avoid the 'close season' on licence applications. The 'close season' on licensing is due to the following:
 - Badgers are markedly less active during the winter months and actions such as exclusion are unlikely to be effective; and
 - Pregnant and lactating females, and dependant cubs, are likely to be found underground between mid-January and the end of June.

Wild Birds¹⁶

The Wildlife & Countryside Act 1981 (as amended) is domestic legislation for Great Britain that repeals existing wildlife legislation such as:

- Protection of Birds Acts 1954 to 1967; and
- Conservation of Wild Creatures and Wild Plants Act 1975.

The Act covers the provisions made in these previous acts and provides additional provision for species and countryside protection. The Act is the primary legislation in Great Britain for the protection of flora, fauna and the countryside. The Act includes the UK's domestic implementation of the species protection of the European Directive on the Conservation of Wild Birds (79/409).

Under the Wildlife and Countryside Act 1981 all birds, their nests and eggs are protected by law and it is thus an offence, with certain exceptions to intentionally:

¹⁶ www.naturenet.net

- Kill, injure or take any wild bird.
- Take, damage or destroy the nest of any wild bird while it is in use or being built.
- 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 or the Protection of Birds Act 1954.
- Have in one's possession or control any egg or part of an egg which has been taken in contravention to the Act. This includes items taken or killed before the passing of the Act.
- Have in one's possession or control any live bird of prey of any species in the world (with the exception of vultures and condors) unless it is registered and ringed in accordance with the Secretary of State's regulations.
- Have in one's possession or control any bird of a species occurring on Schedule 4 of the Act unless registered (and in some cases ringed) in accordance with the Secretary of State's regulations.
- Disturb any wild bird listed on Schedule 1 while it is nest building, or at a nest containing eggs or young, or disturb the dependent young of such a bird.

Status of Wild Birds

The leading governmental and non-governmental conservation organisations in the UK have reviewed the population status of the birds that are regularly found in the UK. A total of 247 regularly breeding or wintering species were assessed and each placed onto one of three lists - Red, Amber or Green. Forty species are Red-listed, 121 are Amber-listed and 86 are Green-listed. Seven quantitative criteria were used to assess the population status of each species and place it onto the Red, Amber or Green List. These criteria are listed below. The review excluded species that are not native to the UK and those that occur irregularly as vagrants or scarce migrants.

Global Conservation Status - Species assessed as Globally Threatened using IUCN11 criteria were placed on the Red List.

Recent Decline - Species whose breeding or non-breeding population declined, or range contracted, rapidly (by more than 50%) or moderately (by between 25 and 49%) over the last 25 years were placed on the Red and Amber Lists respectively.

Historical Decline - Species whose populations declined severely between 1800 and 1995 were placed on the Red List, except for those that have recovered substantially (more than doubled) in the last 25 years, which were Amber Listed. In earlier assessments, all species showing a serious historical decline were Red Listed, but in this assessment the success of recent conservation action has been recognised by moving recovering species to the Amber List.

European Conservation Status - Species whose population status is unfavourable in Europe (but which are not Globally Threatened) were placed on the Amber List.

Rare Breeders - Species with a mean population size of 1-300 pairs breeding annually over the last five years were placed on the Amber List. If a full census was carried out in a single year, the result of this was used instead of a five-year mean.

Localised Species - Species for which 50% or more of the breeding or non-breeding population occurs at 10 or few sites were placed on the Amber List. This criterion was used because a species whose population is confined to a few sites faces a greater threat from chance events than one whose population is widespread. The sites considered were either Important Bird Areas (identified by BirdLife International) or Special Protection Areas (designated under the European Union's Directive on the Conservation of Wild Birds).

International Importance - Species with 20% or more of their European population breeding in the UK were placed on the Amber List, as were non-breeding wildfowl with 20% or more of their northwest European population occurring in the UK and non-breeding waders with 20% or more of their East Atlantic Flyway population occurring in the UK. This criterion is different from the others as it is a measure of the UK's responsibility for each species rather than the extent to which species are threatened.

- Red List species are those that are Globally Threatened according to IUCN criteria; those whose population or range has declined rapidly in recent years; and those that have declined historically and 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.
- Species that fulfil none of the criteria are Green-listed.