

North Littlehampton

Fitzalan Link Road
Planning Application

Ecology Report

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Greencore Group Plc.

Fitzalan Link, North Littlehampton

**Ecological Scoping/Phase 1 Habitat
Survey**

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1.0 EXECUTIVE SUMMARY

Site Location	The Fitzalan Link site lies in the centre of Littlehampton in West Sussex. The site is located between Worthing Road, Highdown Drive and East Street and is centred on Ordnance Survey Grid Reference TQ 031 029 (503125, 102901).
WYGE Survey	The survey included a desktop review of site-specific biological data and an extended Phase 1 habitat survey.
Site Overview	The site is composed of two areas: Area 1 is dominated by rough tussocky semi-improved neutral grassland. This area is typically surrounded by residential developments, the majority of which have their rear gardens backing directly onto the site. The southern and eastern boundary is shared in part with Littlehampton College. Towards the bottom of the site it becomes increasingly narrow and ends by a small private drive leading out into further residential development. Area 2 continues further south beyond the College with a narrow section of horse grazed rough semi-improved neutral grassland with small ruderal and scrub margins, flanked by a mature Leyland cypress hedge in the eastern boundary.
Summary of evaluation	The main ecological value of this site is considered to be: • Linear intact hedgerows and woodland strips within the site and along margins for commuting and feeding bats; • Intrinsic interest of mature broadleaved trees potentially for roosting bats; • Foraging habitat for bats within the semi-improved neutral grassland-ruderal-scrub-woodland mosaic; • Potential badger foraging and commuting interest generally; • Breeding and nesting bird habitat generally of the broadleaved trees, hedgerows, rough grassland and scrub habitats; • Reptile interest within the grassland-ruderal-scrub mosaic; • Potential GCN interest within the scrub-woodland mosaic during their non-breeding phase; • Broad invertebrate interest within the grassland-ruderal-scrub mosaic.
Recommendations	• It is recommended that the mature trees and hedgerows surrounding the field boundaries should be retained wherever possible. Where this is not possible, the loss of trees and hedgerows should be minimised and those trees to be removed should first be investigated for their bat roosting potential; • Should the above assessment of the trees indicate a bat roosting



	potential of moderate or higher, it will be necessary to undertake bat activity surveys prior to the commencement of development activity; • As signs and evidence of badger activity are easier to locate during the late autumn and winter months, it is recommended that a badger assessment be undertaken to establish the status of badgers along the route; • European hedgehogs (a UK BAP priority species and material consideration in planning applications) are likely to be present and potentially hibernating on the site. Therefore if it is important to consider this species when commencing the construction work. This may require ecological supervision of vegetation clearance and a tool box talk to site workers etc; • All areas of dense vegetation should be thoroughly checked for active bird nests by a suitably experienced ecologist prior to removal. If clearance during the bird breeding season is unavoidable, a bird nesting survey should be undertaken and measures put in place to protect and mitigate for the impact on this group; • A presence/absence reptile survey should be undertaken in the areas highlighted to be of potential for this group to establish the status of reptiles along the route, involving a minimum of seven visits during suitable weather conditions to record reptiles; • At this stage the presence of GCNs in their terrestrial phase along the route cannot be ruled out but is considered unlikely; • It is recommended that an invertebrate survey be undertaken along the site at an appropriate time (May to September); • A Habitat Management Plan should be produce to appropriately manage the potential loss of important habitats such as the woodland-scrub-semi-improved grassland mosaic; • Should pruning or arboricultural work be required an arboricultural survey should be undertaken first in order to ascertain the value of the trees prior to works; • Ecological input should be sought for all landscaping proposals, in order to take into account the requirements of biodiversity and include native and locally-sourced species; • Japanese Knotweed should be treated prior to any development works.
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2.0 INTRODUCTION

In September 2009, WYG Environment (WYGE) was commissioned by Greencore Group Plc. to undertake an Ecological Scoping and Phase 1 Habitat survey of the proposed Fitzalan Link site, centred on Ordnance Survey Grid Reference TQ 031 029 (503125 , 102901). The survey was undertaken by WYGE Ecologist Sabrina Bremner on the 12th October 2009.

The aims of this survey were to:

- Gain an overview of the ecological interests of this site;
- Highlight ecological issues and constraints, which need to be addressed before site development work commences;
- Recommend further considerations and survey work as required.

2.1 Site Description

The Fitzalan Link site lies in the centre of Littlehampton in West Sussex. The site is located between Worthing Road, Highdown Drive and East Street and is centred on Ordnance Survey Grid Reference TQ 031 029 (503125, 102901).

The site is composed of two areas, which are detailed below:

Area 1 - is a large area located in the northern extent of the site, approximately 3.2ha in size, dominated by rough tussocky neutral grassland, which was cut regularly up until a few years ago). The boundary of the grassland is dominated by a mosaic ruderal and bramble scrub, beyond which are boundary hedgerows, which are typically species poor and mature trees. Area 1 is surrounded by residential properties, along the north eastern, eastern and western boundary. The majority of which have their rear gardens backing directly onto the site, with some access gates leading onto the site. Beyond Area 1 to the north lies Worthing Road, with is a nursery and caravan park lying beyond this. The southern boundary is shared with North Littlehampton College. Towards the southern limit of Area 1 the land becomes increasingly narrow and ends by a small private drive leading out into further residential development.



Area 2 – comprises a comparatively smaller area of approximately 1.1ha. This area continues further south beyond the College with a narrow section of rough semi-improved neutral grassland with narrow ruderal and scrub margins, flanked by a mature Leyland cypress hedge in the eastern boundary. This area is divided into two by a flint wall towards the southern limit, running east-west. These two areas are currently closely grazed by horses. In the southern limit of Area 2 are Fitzalan Road and East Street to the south. This area is dominated by hardstanding in the form of pavement and roads, with narrow strips of amenity grassland and scattered parkland trees. Immediately to the west of the site is complex of buildings - a nursing home and police station and to the east lies further residential development.

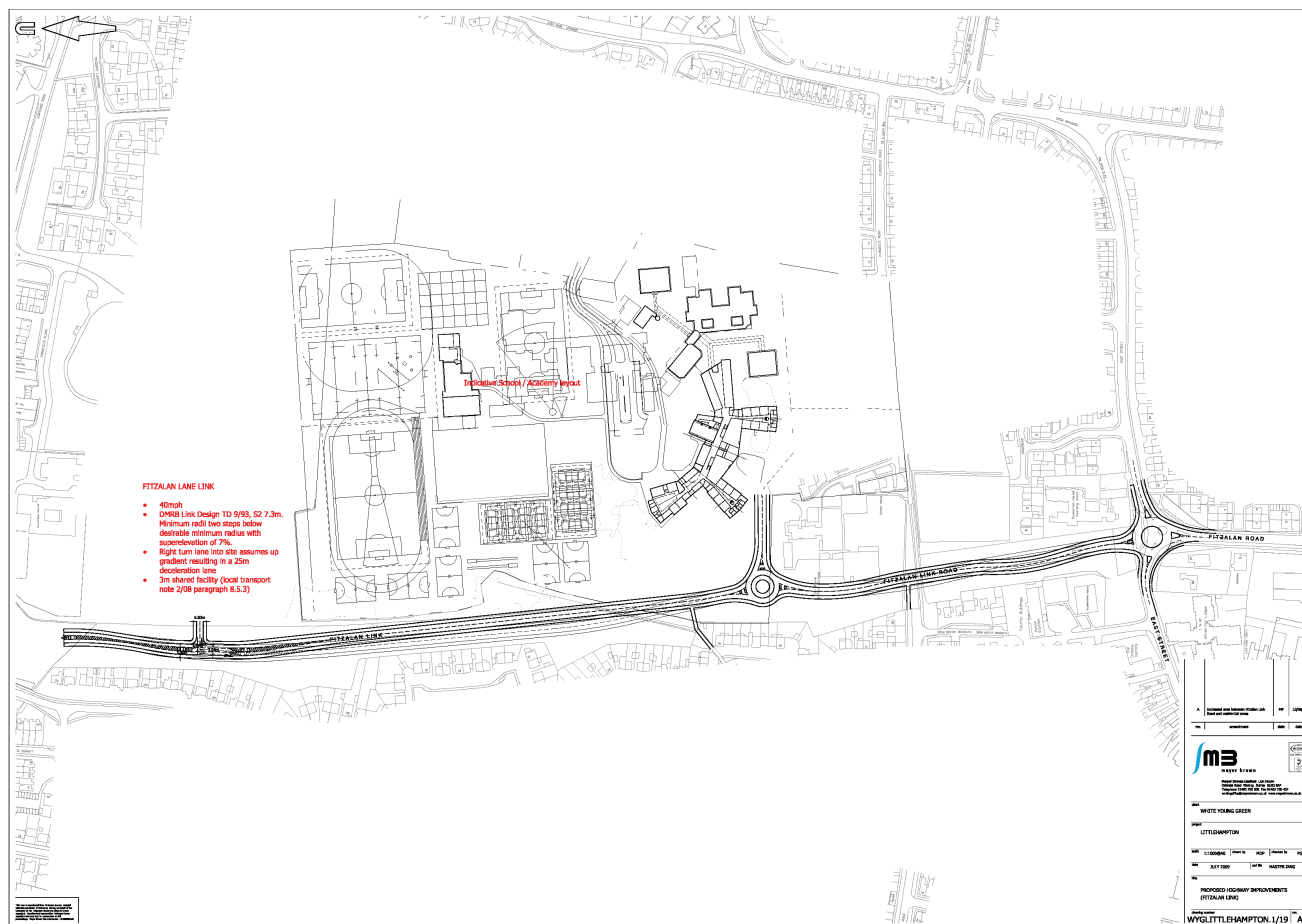
2.2 Proposed Development

The proposed development is a road – Fitzalan Link, which will join East Street at the southern limit of the site to Worthing Road at the northern extent of the site. This development will involve the removal of numerous trees, hedgerows and areas of dense scrub and the clearance of a central area of uncut semi-improved neutral grassland and tall herb vegetation, and the southern areas of grazed neutral grassland and amenity grassland.

Figure 1 below shows the location of the proposed Fitzalan Link site.



Figure 1. the proposed Fitzalan Link route





2.3 Report Conditions

For a detailed review of the extent and limitations of this report, attention is drawn to the report conditions in Appendix A and the WYGE proposal document forwarded previously.



3.0 METHODOLOGY

The overall methodology comprised:

- A desk based review of existing information from readily available sources (web-based);
- Site-specific biological information gained from statutory and non-statutory consultation;
- An Extended Phase 1 Habitat survey of the proposed Fitzalan Link site.

The site survey was undertaken by WYGE Ecologist Sabrina Bremner on the 12th October 2009.

3.1 Desk based review

A review of readily available ecological information, including searches for statutory sites and the important habitat and species they support, within 2km of the site was undertaken. This provided the overall ecological context for the site and surrounding areas and potential basis for the habitat and protected species surveys. The sources of information consulted in this study were:

- Natural England 'Nature on the Map' website;
- The Multi Agency Geographic Information for the Countryside (MAGIC) website;
- Arun District Council website;
- Local Biodiversity Action Plan (LBAP), in this case Species Action Plan for Sussex (2001)
- Natural England Landscape Policy and Character websites.



3.2 Consultation

Site and species specific information was sourced through direct consultation with the Sussex Biodiversity Records Centre (SxBRC), which holds collated records from all local wildlife groups within Sussex. SxBRC was asked to provide any information on records of protected and/or scheduled species within a 2km radius of the site. In addition, information on statutory and non-statutory sites located within 2km of the site and reasons for their designation were also requested. Arun District Council was also contacted for information regarding Tree Preservation Orders at the site. Time constraints prevented further consultation with individual wildlife recording groups.

The responses from SxBRC are presented in Appendix B and a summary is provided in Section 4.2 below.

3.3 Scoping Survey

Field survey methodology followed standard approaches as follows:

3.3.1 Habitats

Habitat types were classified using the standard Phase 1 methodology (JNCC, 2003) and target notes were prepared describing any notable features identified during the survey. Wherever possible UK BAP priority habitats (see below) and important ecological features, which hold potential to support assemblages of species, were identified.

3.3.2 Protected and Notable Species

The field survey also set out to establish the likelihood of protected and notable species being present. This involved identifying features, including signs, potential refugia, breeding sites and foraging areas for a range of appropriate species including:



- Bats (Chiroptera);
- Badgers (*Meles meles*) and other mammals including water voles (*Arvicola amphibius*);
- Nesting and feeding birds;
- Reptiles and amphibians, including slow worms (*Anguis fragilis*);
- Invertebrates;
- Other fauna.

3.3.3 Biodiversity Action Plan priority species and habitats

During the course of the desk based review and the survey, effort was made to establish the potential for the site to support priority species and identify habitats and species which are listed within the UK Biodiversity Action Plan (UKBAP) and Sussex's Local Biodiversity Action Plans (LBAPs). Plants and animals identified as UK BAP priority species are listed under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 and are material considerations in applications for planning permission.

Plants and animals listed as UK BAP Priority Species are protected under Section 41 of the Natural Environment and Rural Communities (NERC) Act, 2006, and are material considerations in applications for planning permission. The list of UKBAP priority species and habitats has recently been revised (June 2007), and now contains 1149 species and 65 habitats.

Sussex Biodiversity Partnership developed the Species Action Plan for Sussex (2001) which details the regions' targets and actions for the priority species and habitats identified within the Sussex area, taking into account both local and national priorities, ensuring that national concerns are met whilst reflecting local conditions and concerns.



3.4 Survey and consultation constraints

Access was not possible to the full extent of the site therefore observations were made from the boundaries where necessary. Dense scrub obscured views and restricted access in places. It is important to note that survey timing was sub-optimal to directly observe some species, especially vascular plants, bats, nesting birds and badgers and follow up work may be required where necessary.

Although the consultation with SxBRC provided the most recent and representative records available, it is recognised that that further data might be held with local wildlife recording groups, but due to constraints of time, it was not possible to contact all local groups, e.g. Sussex Bat Group and Sussex Amphibian and Reptile Group.



4.0 BASELINE CONDITIONS

4.1 Desktop Review

According to the MAGIC and Natural England 'Nature on the Map' websites, no statutory or non statutory designated sites lie within the Fitzalan link site. However, the following statutory designations lie within 2km of the Fitzalan Link site boundary:

Statutory designations

- Climping Beach Site of Special Scientific Interest (SSSI). This site lies approximately 1km south-west of the site and is designated due to its important wintering bird populations and rare vegetated shingle beaches - Sussex BAP habitat(32.06 ha.).
- West Beach Local Nature Reserve (LNR) This site lies approximately 1km south-west of the site and is part of the Climping Beach SSSI. It is also designated due to its important wading bird populations and rare vegetated shingle beaches (15.66 ha.).

Roads and conurbations sever connectivity of these areas to the site.

Other designations

Landscape Classification

Additionally the Fitzalan Link site lies within the following landscape designated Natural Area(s):

- South Coast Plain National Character Area (Area 126):
- South Coast Plain and Hampshire Lowlands Natural Area (Natural Area 74).

Natural Areas are classified by Natural England. This classification describes the typical landscape and natural character of the area, but is non statutory and acts as guidance for planning and conservation targeting purposes.



Non Statutory designations

Environmental Stewardship Areas

Within 2km of the Fitzalan Link site boundary are three areas under Entry Level Stewardship (ELS) to the north west, west and south west and one area under Organic Entry Level Stewardship to the north east of the site. ELS is a voluntary, non-competitive scheme to encourage farmers across a wide area of farmland to deliver simple yet effective environmental management (Natural England, 2009). The scheme requires a basic level of environmental management and participants can choose from a wide range of more than 50 management options. These cover all farming types and include things such as hedgerow management, stone wall maintenance, low input grassland, buffer strips, and arable options (Natural England, 2009).

It is considered that such designations within the local areas will present no restrictions to the proposed development.

Sussex Local Biodiversity Action Plan Species and Habitats

The following Sussex Local BAP Habitats are present on the site:

- Woodland- a strip in the eastern boundary of Area 2;
- Hedgerows –the northern limit of the site, and to the north east of the site boundary.

In addition the following Sussex Local BAP Habitats are located within a 2km radius of the site boundary:

- Arable Field Margins – 1km to the north of the site;
- Lowland Meadow- 1km to the north of the site;
- Reedbed – 1.2km to the north east of the site;
- Lowland grazing marsh – 1km to the north east, north and north west of the site;
- Coastal Vegetated Shingle- 1km to the south west of the site.

The details of these sites and habitats are given in Appendix B.



4.2 Consultation

Records obtained from the consultees provide an ecological context for the site and a supplementary source of biodiversity information. Records can also provide an indication of the potential of a site to support a species, especially if favourable habitat conditions are found there on site and in the intervening landscape.

SxBRC was consulted in 2008 to obtain all records of notable and protected species within 2km of the site.

SxBRC Results

Statutory designations

SxBRC confirmed the presence of the following designation within a 2km radius of the site:

- Climbing Beach SSSI;

Non Statutory designations

The presence of one non-statutory site within 1km of the Fitzalan Link site was confirmed by the SxBRC data search:

- Littlehampton Golf Course and Atherton Beach Sites of Nature Conservation Interest (SNCI). This site lies approximately 1km to the south west of the site (adjacent to Climbing Beach SSSI) and is designated due to its botanical richness. It is separated from the site by a number of main roads.

SNCI is a non-statutory designation and is a typical term for a network of sites that are identified at a county level as being of local conservation importance and often recognised in Local Authority development plans. They are sometimes called SINCs or County Wildlife sites.



Species Records

No species records were provided for the Fitzalan link site. However, a number of notable species records are held by SxBRC have been recorded within 2km of the site boundary:

- whiskered bat (*Myotis mystacinus*);
- Natterer's bat (*Myotis nattereri*);
- serotine bat (*Eptesicus serotinus*);
- common pipistrelle bat (*Pipistrellus pipistrellus*) – a Sussex BAP species;
- barbastelle bat (*Barbastella barbastellus*);
- brown long-eared bat (*Plecotus auritus*);
- hen harrier (*Circus cyaneus*);
- corn crake (*Crex crex*);
- red-necked phalarope (*Phalaropus lobatus*) ;
- wood lark (*Lullula arborea*);
- sky lark (*Alauda arvensis*) - a Sussex BAP species;
- song thrush (*Turdus philomelos*) a Sussex BAP species;
- slow worm (*Anguis fragilis*);
- grass snake (*Natrix natrix*);
- adder (*Vipera berus*);
- common lizard (*Lacerta vivipara*);
- stag beetle (*Lucanus cervus*) - a Sussex BAP species;
- white letter hairstreak (*Strymonidia (Satyrium) w-album*);
- broad-bordered bee-hawk (*Hemaris fuciformis*);
- red helleborine (*Cephalanthera rubra*).

Tree Preservation Orders

No Individual and Group Tree Preservation Orders (TPO) have been placed on trees on and around this site (pers. comm. Arun District Council, Planning Department-Technical Support).



5.0 DESCRIPTION OF SITE ECOLOGY

5.1 Detailed Description of Site

5.1.1 General site description

The site is composed of two distinct areas: Area 1 is the area from Worthing Road south to Littlehampton College. This area is a complex mosaic dominated by tall tussocky semi-improved neutral grassland, with scrub and tall ruderal margins. Throughout the site are plantation broadleaved and coniferous trees, small area of broadleaved trees and occasional intact species poor hedges. Area 2, to the south of Littlehampton College continuing to East Street in the south is semi-improved neutral grassland, currently grazed by horses, bound to the east by a mature Leyland cypress hedge, with amenity grassland and scattered parkland trees in the southern limit.

Photos are in Appendix C and a map of the Phase 1 habitat survey, which illustrates the habitats and the distinct areas, is given in Drawing No. GLTD/A044029-2/HAB/02 in Appendix D.



5.1.2 Habitats

The following Phase 1 habitat types were present within the Areas 1 and 2 on site:

- Woodland and scrub – woodland, broadleaved, semi-natural (A1.1.1);
- Woodland and scrub – parkland/scattered trees, coniferous (A3.2);
- Woodland and scrub – parkland/scattered trees-mixed (A3.3);
- Woodland and scrub – scrub, dense/continuous (A2.1);
- Grassland and marsh - semi-improved neutral grassland (B2.2);
- Cultivated/disturbed land - amenity grassland (J1.2);
- Tall herb and fern: ruderal (C3.1);
- Boundaries: Intact hedgerow -species poor (J2.1);
- Wall (J2.4);
- Fence (J2.5)
- Built up areas - caravan site(J3.4);
- Built up areas – buildings(J3.6):
- Bare ground (J4).



Woodland, broadleaved, semi-natural (Photos 9-13),

There are several areas of semi-natural broadleaved woodland on the site and in the immediate surrounds. These areas are typically dominated by mature hawthorn (*Crataegus monogyna*), often ivy (*Hedera helix*) clad, elder (*Sambucus nigra*), ash (*Fraxinus excelsior*), holly (*Ilex aquifolium*), rose (*Rosa* sp.) and are surrounded by dense bramble (*Rubus fruticosus* agg.) dominated scrub. The understorey is typically shaded and the ground cover dominated by ivy with some dead wood.

Parkland/scattered trees, coniferous (Photos 7-8),

This habitat is dominated by a line of mature Leyland cypress (*x Cupressocyparis leylandii*). These are located along the south eastern boundary of the site.

Parkland/scattered trees-mixed (Photos 5-6, 39-43),

These trees comprise a linear feature that runs north to south through the site, which are dominated by mature Lombardy poplar (*Populus nigra*) and Leyland cypress. Additional trees are located in the north eastern limit of the site, to the east beyond the site boundary and also in the southern limit of the site, around the existing East Street roundabout. Numerous scattered trees are located along the western site boundary, often in residential gardens.

Scrub, dense/continuous (Photos 34-37),

Dense bramble dominates this habitat type, with common nettle (*Urtica dioica*), ivy and rose also present.



Semi-improved neutral grassland (Photos 1-4, 38),

This habitat type dominates the site; the grassland is tall and tussocky in places having been left uncut for several years (pers. comm. local resident). It has moderate species diversity, with grass species noted including: Yorkshire fog (*Holcus lanatus*), cock's foot (*Dactylis glomerata*), meadow foxtail (*Alopecurus pratensis*), timothy grass (*Phleum pratense*), crested dog's-tail (*Cynosurus cristatus*) and herb species comprising thistle (*Cirsium* sp.), dock (*Rumex* sp.) yarrow (*Achillea millefolium*), red clover (*Trifolium pratense*) and ribwort plantain (*Plantago lanceolata*).

Amenity grassland

This habitat type was observed adjacent to the site in Littlehampton College; and in the southern limit of the site around the existing roundabout on East Street. This habitat type is typically species poor due to its managed nature, dominated by perennial rye grass (*Lolium perenne*), white clover (*Trifolium repens*), and was mowed at the time of the survey.

Ruderal (Photo 33),

Tall ruderal species were noted in a few discrete disturbed areas throughout the site, in particular where footpaths had created bare ground. Such areas were dominated by common nettle, thistle, bramble and rosebay willowherb (*Chamerion angustifolium*).

Intact hedgerow -species poor,

Two areas of hedgerow are present within the site boundary: the first is located along the northern boundary with Worthing Road (Photos 24-25). The second hedgerow is located in the centre of the site, with an area of hedge running west to east by Littlehampton Primary School (Photos 26-27) and are dominated by hawthorn, with occasional blackthorn (*Prunus spinosa*), elder, rose (*Rosa* sp.), ivy and bramble.



Wall

A flint wall divides the horse grazed fields in Area 2.

Fence

Numerous fences are located throughout the site, predominantly along site boundaries.

Built-up areas

These bound the site to the west, in the form of residential developments and the care home/police station complex to the south west of the site. To the north east are a series of school buildings, further school properties are located along the eastern boundary of Area 2.

5.1.3 Target notes

Target Notes are used to detail any particular features of ecological interest found (Refer to numbers in red in Drawing No. GLTD/A044029-2/HAB/02, Appendix D)

Target Note 1 (Photos 1-4, 38, Appendix C)

This large area of uncut semi-improved neutral grassland is tussocky and relatively species rich. This habitat type is part of a greater mosaic including dense scrub, woodland strips and tall ruderal, and is of potential interest to basking and foraging reptiles and a wide variety of invertebrate species.

Target Note 2 (Photos 18-23, Appendix C)

Numerous badger latrines were observed throughout the site, with a particular concentration underneath an apple tree located in a residential garden adjacent to the western boundary of the site.

Target Note 3 (Photos 9-13, Appendix C)

Broadleaved woodland strips dominated by mature hawthorn, with dense ivy cover in places, and some dead and split wood, of potential bat roosting interest. Dense



scrub is often located adjacent to such woodland areas and the mosaic of woodland and scrub provides suitable hibernation habitat for local reptiles.

Target Note 4 (Photos 14-17, Appendix C)

This area of semi-improved grassland is currently closely grazed by horses and the ground within this area is 'poached' (compacted and disturbed). In the western limit of this area are small manure piles and narrow areas of scrub and tall ruderals, which are considered to hold some potential for foraging and basking reptiles.

Target Note 5 (Photos 30-32 Appendix C)

Japanese knotweed (*Fallopia japonica*) was noted in two locations in the southern limit of the site.

Target note 6 (Photos 44-46, Appendix C)

Several excavations and paths were noted in this area of woodland, and foraging paths.



5.1.4 Protected and notable species potential

The text below assesses the possibility of protected and/or notable species being on site, based on desk studies and field survey. Where further surveys are required, these are detailed in Section 8

Bats

The site contains no built structures suitable for bat roosting, and the surrounding buildings (Photos 28-29, Appendix C) - predominantly residential houses with pitched tiled roofed frequently with tile cladding (including south facing walls) are likely to be of bat roosting interest.

The areas of broadleaved woodland are dominated by mature hawthorn trees, some of which have dense ivy cover which may conceal cracks and splits that are potential roost sites for bats and as such are considered to be of **Low** potential to roosting bats.

It is considered likely that the site supports commuting and foraging bats as it is dominated by a mosaic of vegetation – woodland-scrub-dense tussocky grassland and tall ruderal which will attract a good invertebrate population providing good foraging opportunities for local bats.

As such the site as a whole is considered to be of **Low** potential as bat roosting location, and **Low** to **Moderate** potential as a bat foraging and commuting site but further survey should be undertaken to assess this with greater confidence.

Badgers (*Meles meles*) and other mammals

Several signs of badgers, such as paths leading to a series of excavations and recent latrines, were noted during the survey. A number of mammal paths were recorded within the grasslands and through hedgerows, however these could be attributable to mammals such as rabbits, cats and dogs, other signs of which (droppings and prints) were noted on site.

The hedgerow, grassland and scrub habitats on site could provide foraging opportunities for local badgers as well as connective habitat; however this is unlikely



to be prime habitat given the limited signs of activity. It should be noted that access into dense scrub and woodland was not possible in places.

Further survey is required before an assessment of the site's potential to support badgers can be made.

Water vole and Otter

No signs of water vole were noted during the survey and no aquatic habitats are present on site. The site is therefore unlikely to support this species as it lacks suitable riparian vegetation on which the species feeds.

No signs of otter were noted during the survey and no aquatic habitats are present on site. The site is therefore unlikely to support this species as it is unsuitable for foraging and commuting otter due to their temporal nature.

Hazel dormouse (*Muscardinus avellanarius*)

No signs of dormouse were noted during the survey.

Numerous hedgerows form the boundaries of Fitzalan Link site. The main food source for Hazel dormice is hazel (*Corylus avellana*). The hedgerows at the site are considered unfavourable for hazel dormice due to the absence of hazel, and the sparse presence of the many alternative food sources required by dormice throughout the season such as elder and honeysuckle (*Lonicera periclymenum*).

The lack of records of dormice within a 2km radius of the site boundary, the poor structure and composition of the hedgerows, and lack of connectivity to broadleaved woodland indicate the site as a whole is unsuitable to support dormice.

As such the site is considered to be of **Negligible** to **Low** potential to support dormice.

European hedgehog (*Erinaceus europaeus*)

It is considered likely that hedgehogs use the dense scrub-hedgerow-woodland areas on site to forage, commute and potentially hibernate in the dense scrub-woodland mosaic. Fitzalan Link is considered to be of **Moderate** potential to foraging, commuting and hibernating hedgehogs.



Birds

The site holds a range of habitats including broadleaved woodland, plantation coniferous and broadleaved trees, hedgerows and scrub that are favourable to breeding, nesting and over wintering birds. A number of birds were observed during the walkover survey including blackbird (*Turdus merula*) and robin (*Erithacus rubecula*) and local residents reported that kestrels (*Falco tinnunculus*) and sparrow hawks (*Accipiter nisus*) have been successfully breeding in the area immediately adjacent to the site, and have been observed hunting over the site.

In addition, the matrix of habitats on site is likely to provide birds with foraging resources and shelter.

Fitzalan Link is considered to be of **Moderate** potential as bird nesting and foraging areas.

Reptiles and amphibians

No signs of reptiles were noted during survey. Tall ruderal, semi-improved tussocky grassland provide potential basking habitat and dead wood, compost and manure heaps provide potential refuge opportunities. Tree lines and hedgerows, and residential gardens along the western boundary provide potential connectivity for dispersal on and off site. There are numerous records for reptiles, including slow worms common lizards, grass snake and adder made within two kilometres of the site and it is considered that the site holds **Moderate** potential for reptiles.

No signs of amphibians were noted during survey. There are no water bodies on the site which renders the site unsuitable for the aquatic breeding phase of great crested newts (*Triturus cristatus*) (mid March and mid June) and other more common species. Dead wood, compost heaps and occasional rubble and garden waste provides suitable refuge opportunities and tree lines and hedgerows provide potential connectivity for dispersal on and off site.

Aerial photographs were scrutinised for the 500m buffer around the road route, and no significant waterbodies were found within gardens of the residential surrounding areas that have connectivity to the site. Therefore *if* there are great crested newts



(GCNs) in the local area it is considered likely that the physical barriers are too great for commuting GCNs to enter the site during their terrestrial phase.

As such the site is considered to hold **Negligible** potential for GCNs during their aquatic phase and **Low** potential for GCNs during their terrestrial phase.

Reptile surveys have been recommended for this site and in the unlikely event that GCNs are present on site during their terrestrial phase these would be revealed during the reptile survey. At this point a Watching Brief will be recommended for such notable amphibians.

Invertebrates

Several invertebrate groups were observed during the survey, including dragonflies, crickets, butterflies, moths and beetles.

The matrix of habitats throughout the site and the provision of various flora in the adjacent gardens of residential properties are likely to provide a diversity of niches for local species, which are able to tolerate some disturbance from public/machinery.

The site supports a mosaic of habitats, including species-rich tussocky semi-improved grassland, dense scrub, woodland and tall ruderal, which can be important to a wide range of invertebrates. Several common orders of invertebrates were observed during the survey, including crickets, bees, dragonflies and butterflies. The site is considered to be of Moderate potential for invertebrates as a broad group.

Vascular plants

No signs of rare or notable plants were noted during the survey.

The survey was undertaken at a suboptimal time to observe many notable vascular plant species. Given the largely unmanaged nature of the habitats on site it is possible that notable species will be present on site.



6.0 NATURE CONSERVATION EVALUATION

6.1 Preliminary evaluation methodology

The following section considers the intrinsic value of the habitats and the protected species most likely to be present. In assessing importance of a feature, habitat or species a range of guidelines have been referred to including:

- The UK BAP (from www.ukbap.org.uk);
- Sussex Local Biodiversity Action Plan;
- A Nature Conservation Review (Ratcliffe. 1977);
- Guidelines for Ecological Impact Assessment in the United Kingdom (IEEM, 2006).

In accordance with the IEEM guidance noted above, the value or potential value of an ecological resource or feature is determined within a defined geographical context. The following frame of reference is used in this report:

- International;
- UK;
- National (i.e. England/Northern Ireland/Scotland/Wales);
- Regional;
- County (or Metropolitan - e.g. in London) –Sussex;
- District (or Unitary Authority, City, or Borough);
- local or Parish; and
- within zone of influence only (which might be the project site or a larger area).

For some species groups it is difficult to evaluate the interest until further surveys have been undertaken. However in this scoping study an initial assessment has been made based primarily on the capacity of the habitat to support the species in question.



6.2 Evaluation of habitats

Many of the habitats within the site boundary are of some nature conservation value and hold ecological interest which may be important for some of the species they support. At this stage, absence of protected species data on site limits the evaluation of the site's nature conservation importance and the value of these habitats may need to be updated following targeted protected species surveys. Those habitats that are considered to be of particular note for this site are as follows:

Broadleaved woodland

The areas of broadleaved woodland - comprising many mature hawthorn trees is considered to be semi-natural and of potential to support a wide range of nesting bird and roosting bat species. As a habitat type it is considered here to be locally uncommon and is therefore valuable at the **Local** level.

Semi-improved neutral grassland –ruderal-dense scrub mosaic

This habitat mosaic has been left uncut for several years allowing it to become densely tussocky moving towards good botanical species richness. This mosaic is relatively uncommon in the local area and dominates a large proportion of the entire site. As a habitat type it is considered here to be locally uncommon and is therefore valuable at the **Local** level.

Hedgerows

Specie poor intact hedgerows are present along the northern boundary of the site and are also present in the centre of the site. Generally, as a habitat type these hedgerows are considered to be fairly common in the local area as such are valuable at ***Within the zone of influence*** level only.



Scrub

The scrub habitat comprises common shrub species such as bramble, hawthorn and blackthorn and is a common feature in the local area. As a habitat type it is considered here to be valuable at the level of ***Within the zone of influence*** only.

6.3 Evaluation of protected and notable species relevant to this site

Bats

The mosaic of grassland-scrub-woodland-ruderal may be valuable as a foraging ground for bats, and the connectivity of the tree lines and hedgerows to similar habitats beyond the site is considered to be good. Some of the trees on site are potentially of low potential as bat roosting habitat. The site therefore is considered to be of value at the level of ***Within the zone of influence*** due to its potential to support roosting, foraging and commuting bats.

Badgers and other mammals

The mosaic of improved and semi-improved grassland, with tall ruderal and scrub are of potential interest to commuting and foraging badgers. The site is considered to be valuable to badgers at the ***Local*** level only.

It is considered likely that European hedgehogs use the site for foraging, commuting and hibernating purposes due to the presence of dense scrub and woodland strips and the likely presence of good populations of their food sources. The site is considered to be valuable to hedgehogs at the ***Local*** level only.

Birds

The mosaic of habitats that are present on site including scrub, ornamental planting, intact hedgerows and broadleaved trees, improved grassland and semi-improved grassland areas are particularly valuable for a wide variety of birds. As a result the site is considered to be of ***Local*** value in nature conservation terms.



Reptiles

The site is dominated by rough semi-improved grassland with areas of scattered scrub, scrubby hedgerows, tall ruderals and in the southern section some manure piles are present, all of which provide potentially favourable habitat for reptiles, particularly slow worms and common lizard. Therefore the site holds some potential for slow worms and common lizards and is considered to be valuable to this taxon group to the **Local** level only.

Amphibians

Notable amphibian species such as GCN's require a matrix of waterbodies to breed and as the site has no waterbodies it is considered highly unlikely that this species is present at the site during its aquatic phase. The site does support some suitable habitat for GCN's during their terrestrial phase, including dense scrub and woodland. However, these habitats are considered to be isolated from suitable aquatic habitat that would allow the migration of GCNs to the site. The site is therefore considered to be of value **within the zone of influence only** to GCNs.

Invertebrates

The site comprises a range of habitats including semi-improved rough grassland, scrub, hedgerows, broadleaved trees, and tall ruderal, all of which can provide important habitat for invertebrates. There are a good variety of pollen and nectar plant sources attractive to insects and the diversity and mosaic of habitats at the site is considered therefore to be of value at the **Local level** only.

Evaluation at the Landscape ecology scale

The wider site in which the proposed development area sits forms an island bounded by residential areas and roads. On the proposed development site itself the network of habitats such as broadleaved woodland, scrub and semi-improved neutral grassland is good but has little connectivity beyond the site in all directions.

Generally therefore the site has limited value in terms of landscape ecology and



connectivity to the open countryside outside the boundary. However, the boundary habitats have been recognised above as potentially being useful commuting markers and feeding areas for bats

If biodiversity is to be enhanced and encouraged back to the site post development and a major way of achieving this is to enhance and retain boundary habitat features as far as possible.

6.4 Summary of evaluation

The main ecological value of this site is considered to be:

- Linear intact hedgerows and woodland strips within the site and along margins for commuting and feeding bats;
- Intrinsic interest of mature broadleaved trees potentially for roosting bats;
- Foraging and commuting habitat for bats within the semi-improved neutral grassland-ruderal-scrub-woodland mosaic;
- Potential badger foraging and commuting interest generally;
- Breeding and nesting bird habitat generally of the broadleaved trees, hedgerows, rough grassland and scrub habitats;
- Reptile interest within the grassland-ruderal-scrub mosaic;
- Broad invertebrate interest within the grassland-ruderal-scrub mosaic.



7.0 LEGISLATIVE CONSIDERATIONS AND CONSTRAINTS

The site has the potential to support selected protected species and as such the following aspects of wildlife legislation should be noted:

7.1 Bats

All British bat species and their roosts are fully protected under Schedule 5 of the Wildlife and Countryside Act, 1981 (as amended) and are also included in Schedule 2 of the Conservation (Natural Habitats &c.) Regulations 1994. Further enforcement has been provided by the Countryside and Rights of Way Act 2000, which has made species offences arrestable, increases the time limits for some prosecutions and increases penalties.

Taken together, the Act and Regulations make it illegal to:

- intentionally or deliberately kill, injure or capture (or take) bats;
- deliberately disturb bats (whether in a roost or not);
- recklessly disturb roosting bats or obstruct access to their roosts;
- damage or destroy bat roosts;
- possess or transport a bat or any part of a bat, unless acquired legally;
- sell (or offer for sale) or exchange bats, or parts of bats.

This legislation applies to all life stages.

In summary, based on the above legislation, it is an obligation on those who seek to effect changes to buildings, structures, caves or trees where bats are present or thought to be present to seek specialist advice, and to ensure that appropriate systems are in place to avoid damage to bat roosts or the habitat where bats are present. Any work that will cause disturbance to a bat or bat roost shall require a specific licence from Natural England. This body will review licence applications in consultation with the Local Planning Authority and may impose conditions or refuse the granting of a licence.



7.2 Badgers

Badgers are protected in Britain by the Protection of Badgers Act 1992. The purpose of this Act is to protect the animals from deliberate cruelty and from the incidental effects of lawful activities which could cause them harm. Under this legislation it is an offence to:

- wilfully kill, injure, take, possess or cruelly ill-treat a badger, or attempt to do so;
- interfere with a sett by damaging or destroying it;
- obstruct access to, or any entrance of, a badger sett;
- disturb a badger when it is occupying a sett.

Note that if any of the above resulted from a person being reckless, even if they had no intention of committing the offence, their action would still be considered an offence.

A person is not guilty of an offence if it can be shown that the act was 'the incidental result of a lawful operation and could not have been reasonably avoided'; only a court can decide what is 'reasonable' in any set of circumstances. In practice, a developer can avoid running into problems here if advice is taken from a professional ecologist or Natural England.

In terms of development, many construction activities within 30m of a badger sett may require a licence from Natural England.

Licences are not normally issued during the breeding season, which is between 30th November and 1st July, and cannot be issued retrospectively. Activities that necessarily involve disturbance should therefore be programmed to take place out with this period. Licences are usually only issued after full planning permission has been granted (if applicable) so that there is no conflict with the planning process.



7.3 Birds

All birds, their nests and eggs are protected by the Wildlife and Countryside Act 1981 (as amended), Part 1. It is therefore an offence to intentionally:

- 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;
- (Intentionally or recklessly) 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.

The presence of breeding birds should be considered a constraint to development if vegetation clearance is undertaken during the bird breeding season (generally considered to be from the beginning of March until the end of August). If presence of breeding birds is confirmed then the development timetable will have to be revised to take account of this and delay vegetation clearance until young birds have fledged the nest.

7.4 Reptiles

All British reptiles receive protection under the Wildlife and Countryside Act 1981 (as amended). The four more common species of reptile; the common lizard, the grass snake, the slow worm and the adder receive protection from Section 9(1) and all of Section 9(5) of the Wildlife and Countryside Act, 1981 (as amended), which makes it an offence to intentionally kill or injure an animal, sold or traded in any way.

It is therefore a criminal offence to undertake major works on site that may result in the death or injury of a native reptile species where these species are known to be present.



The two rare species of British reptile, the smooth snake and the sand lizard are listed in Schedule 5 of the Wildlife and Countryside Act, 1981 (as amended) and under Annex IV of the Conservation of Natural Habitats and of Wild Fauna and Flora Directive, 1992 ('the Habitats Directive') as a European protected species. Furthermore, the Countryside and Rights of Way Act, 2000 (Schedule 12, paragraph 5) has amended Section 9(4) of the 1981 Act to include the term 'reckless'. Consequently, it is an offence to intentionally kill, injure or take a smooth snake(s) and sand lizard as well as intentionally or recklessly damage, destruct or obstruct the access to the place of shelter or disturb the animal while it is occupying it. These species are therefore fully protected under Section 9 of the 1981 Act and under Regulation 39 of the Conservation (Natural Habitats etc) Regulations, 1994 that transposes the Habitats Directive into UK law.

7.5 Amphibians

The four commoner species of amphibian are protected by Section 9(5) of the Wildlife and Countryside Act 1981. This means that the protection for wild animals extends only as far as prohibiting sale and transporting or advertising for sale. This is intended to allow regulation of any trade in these species. Consequently catching them, or keeping them as pets, or even killing them, is not prohibited (subject to controls relating to animal welfare).

The amphibian species covered only by Section 9(5) are:

- Smooth or common newt (*Lissotriton vulgaris* formerly *Triturus vulgaris*);
- Palmate newt (*Lissotriton helveticus* - formerly *Triturus helveticus*);
- Common frog (*Rana temporaria*);
- Common toad (*Bufo bufo*).

It is very unlikely that great crested newts use the development site, but it is important to recognise that they are listed in Schedule 5 of the Wildlife and Countryside Act, 1981 (as amended) and under Annex IV of the Habitats Directive, 1992 as a European



protected species. The Countryside and Rights of Way Act, 2000 (Schedule 12, Paragraph 5) has amended Section 9 of the 1981 Act bolstering the protection of this species. They are therefore fully protected under Section 9 of the 1981 Act and under Regulation 39 of the Conservation (Natural Habitats &c.) Regulations, 1994, which transposes the European Habitats Directive into UK law.

In summary, it an offence to:

- intentionally kill, injure or take any great crested newt;
- intentionally or recklessly damage, destroy or obstruct the access to the place of shelter or protection or disturb the animal while it is occupying it;
- damage or destroy a breeding site or resting place of such animals.

This legislation applies to all life stages. Consequently, attention should be given to dealing with the modification or development of an area if aspects of it are deemed important to great crested newts (such as breeding ponds or hibernation sites).

7.6 Invertebrates

A small number of invertebrate species in the UK are listed under Section 9 of the Wildlife and Countryside Act 1981 (as amended) and as such may be protected under one, some or all of the following parts:

- intentional killing, injuring, taking;
- possession or control (live or dead animal, part or derivative);
- damage to, destruction of, obstruction of access to any structure or place used by a scheduled animal for shelter or protection;
- disturbance of animal occupying such a structure or place;
- selling, offering for sale, possessing or transporting for the purpose of sale (live or dead animal, part or derivative):
- advertising for buying or selling live or dead animal, part or derivative.



Many invertebrates are listed as priority species in the UK Biodiversity Action Plan (UKBAP).

Stag beetles are listed in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended); this legislation affords them protection from:

- damage to, destruction of, obstruction of access to any structure or place used by a scheduled animal for shelter or protection, and;
- disturbance of animal occupying such a structure or place.

In addition they are a UK BAP Priority Species; are also listed under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 and are regarded as a material consideration in planning permission applications.



8.0 RECOMMENDATIONS FOR FURTHER CONSIDERATION AND SURVEY WORK

8.1 General Recommendations

Planning Policy Statement 9 (PPS9) *Biodiversity and Geological Conservation* (2005) sets out the Government's vision for conserving and enhancing biological diversity in England. It includes the broad aim that planning, construction, development and regeneration should have minimal impacts on biodiversity and enhance it wherever possible. The broad objectives for planning include:

- Promotion of sustainable development
- To conserve, enhance and restore the diversity of England's wildlife
- To contribute to rural renewal and urban renaissance

Consideration should be given to the incorporation of biodiversity enhancing features within any development in order to ensure that the development meets criteria set out within PPS9 for creating biodiversity gain. Species-specific details on biodiversity enhancement will be provided following the further surveys, however a number of measures can be considered in advance, including:

- Retention of valuable habitat, including mature trees and hedgerows where possible;
- Ecological input be sought for any landscape plans or planting schemes proposed on the site in order to maximise the biodiversity potential of the site;
- Creation of new habitats such as ponds (potentially as a part of Sustainable Urban Drainage (SUDs)), the design of which should incorporate features of wildlife value;
- The installation of bat boxes and bird nest boxes on suitable trees;



- The provision of refuges suitable for amphibians, reptiles and small mammals such as hedgehogs in suitable habitat along the road route.

8.2 Further Ecological Surveys

Natural England's (NE) Standing Advice regarding the provision of survey information on all protected species 'upfront' with any planning permission application. This scoping survey has shown that a number of additional protected species surveys will be required for the proposed route of the Fitzalan Link and as such NE will be looking for this information to enable them to make an informed judgement and decision on the application. The absence of full information may lead to an objection by default by NE. For the link to the standing advice please follow:

http://www.naturalengland.org.uk/regions/south_east/ourwork/standingadvice/default.aspx

It is recommended that the following considerations are taken into account. It should be noted that some surveys can only be undertaken at certain times of the year and an approximate timetable of recommended survey times is given in Table 8.1.

The following targeted surveys, which follow recommended survey guidelines, are required to fully assess the ecological impacts of the development and develop appropriate mitigation strategies, where necessary:

8.2.1 Bats

It is recommended that a tree assessment for bat roosting potential be undertaken to ascertain whether any trees on site are used and of potential importance to roosting bats. Should the assessment of the trees indicate a bat roosting potential of Moderate or higher value, it will be necessary to undertake further bat activity surveys to ascertain if bats are roosting in the features and if so, the species and number of bats.



8.2.2 **Badgers and other mammals**

Within Area 1 paths were observed leading to a series of excavations in the area of woodland (Target note 6); several badger latrines were noted in the central and western areas, and well worn mammal paths were noted throughout the site. The presence of an active badger sett on or near the proposed route cannot be ruled out. As such a further survey should be undertaken to determine the level of use of the site by badgers.

European hedgehogs (a UK BAP priority species and material consideration in planning applications) are likely to be present and potentially hibernating on the site. Therefore it is important to consider this species when commencing the construction work. This may require ecological supervision of vegetation clearance and a tool box talk to site workers etc;

8.2.3 **Birds**

The broadleaved trees, hedgerows, scattered scrub and plantation trees on the site are likely to support nesting and breeding birds. Any vegetation clearance works likely to affect these features, should ideally be timed to commence outside the bird breeding period (March to August inclusive). It should be noted here that birds will sometimes nest outside these months and the relevant legislation will still apply if a nesting bird is found.

If the clearance of vegetation is unavoidable during the bird breeding season, then a nesting bird survey followed by ecological supervision of the works will be required. Any active bird nests found must be left in situ with an approximately 5 metre buffer zone until all of the young have fledged.

8.2.4 **Reptiles**

Rough grassland, scrub and ruderal vegetation are present throughout the site providing potential for basking and foraging reptiles. Small areas of dead wood in the woodland areas and small manure piles in the horse grazed fields may provide potential hibernacula habitat for reptiles. It is therefore recommended that a presence/absence



reptile survey is carried out to find out if these animals are present on site and in what numbers. This will establish the value of this site for this taxon group and provide information to develop any necessary mitigation measures.

8.2.5 **Amphibians**

No waterbodies were noted along the proposed route and, although the habitats along the proposed route, namely the dense scrub/woodland margins, provide favourable conditions for GCNs during their terrestrial phase the site is isolated from suitable aquatic habitat. Amphibian presence may be detected during the recommended reptile presence/absence survey (see above), but it is considered unlikely. However, a 'watching brief' is recommended and in the event of GCNs being detected appropriate further survey and mitigation measures may be required.

8.2.6 **Invertebrates**

The areas of improved and semi-improved grassland with rough grassland boundaries are also considered to be of interest to a wide range of invertebrate groups, including Orthoptera (crickets and grasshoppers), Odonata (dragonflies and damselflies), Coleoptera (beetles) and Lepidoptera (moths and butterflies). As such an invertebrate scoping survey should be undertaken to assess the value of this site for this phylum.



8.2.7 Trees and Hedgerows

Site investigation and construction works can potentially impact on trees and cause significant damage to root systems. As such, it is important to follow the guidance provided in BS 5837 'Trees in relation to Construction' and NHBC Standards 'Building near trees' in order to minimise any negative impacts upon retained trees.

Should pruning or arboricultural work be required an arboricultural survey should be undertaken first in order to ascertain the value of the trees prior to works.

Table 8.1 - Recommended periods for protected species surveys

Survey	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Bat Roost Assessment												
Bat Activity/ Emergence												
Badger activity												
Breeding Bird												
Reptile												
Invertebrate												

Key

	Unsuitable period of year for surveying
	Sub-optimal time to survey
	Optimal time to survey (Best Practice)



8.3 Additional Work

Japanese Knotweed was observed growing on the boundary of the horse grazed fields and the nursing home/police station complex in the south west limit of the site. It is recommended that the area of this invasive and notifiable species site is surveyed in more detail and a treatment programme commenced immediately to eradicate species.

8.4 Summary of recommendations

- It is recommended that the mature trees and hedgerows surrounding the field boundaries should be retained wherever possible. Where this is not possible, the loss of trees and hedgerows should be minimised and those trees to be removed should first be investigated for their bat roosting potential;
- Should the above assessment of the trees indicate a bat roosting potential of moderate or higher, it will be necessary to undertake bat activity surveys prior to the commencement of development activity;
- As signs and evidence of badger activity are easier to locate during the late autumn and winter months, it is recommended that a badger assessment be undertaken to establish the status of badgers along the route;
- European hedgehogs (a UK BAP priority species and material consideration in planning applications) are likely to be present and potentially hibernating on the site. Therefore if it is important to consider this species when commencing the construction work. This may require ecological supervision of vegetation clearance and a tool box talk to site workers etc;
- All areas of dense vegetation should be thoroughly checked for active bird nests by a suitably experienced ecologist prior to removal. If clearance during the bird breeding season is unavoidable, a bird nesting survey should be undertaken and measures put in place to protect and mitigate for the impact on this group;
- A presence/absence reptile survey should be undertaken in the areas highlighted to be of potential for this group to establish the status of reptiles



along the route, involving a minimum of seven visits during suitable weather conditions to record reptiles;

- At this stage the presence of GCNs in their terrestrial phase along the route cannot be ruled out but is considered unlikely;
- It is recommended that an invertebrate survey be undertaken along the site at an appropriate time (May to September);
- A Habitat Management Plan should be produce to appropriately manage the potential loss of important habitats such as the woodland-scrub-semi-improved grassland mosaic;
- Should pruning or arboricultural work be required an arboricultural survey should be undertaken first in order to ascertain the value of the trees prior to works;
- Ecological input should be sought for all landscaping proposals, in order to take into account the requirements of biodiversity and include native and locally-sourced species;
- Japanese Knotweed should be treated prior to any development works.



9.0 DOCUMENTS CONSULTED

English Nature (2001). Great Crested Newt Mitigation Guidelines, version August 2001.

Sussex Local Biodiversity Action Plan.

IEEM (2006). Guidelines for Ecological Impact Assessment in the United Kingdom.

Joint Nature Conservation Committee (2003). Handbook for Phase 1 Habitat Survey: A Technique for Environmental Audit. JNCC, Peterborough.

Joint Nature Conservation Committee (2003) *Herpetofauna Worker Manual*, JNCC, Peterborough.

Ratcliffe, D. A. (ed.) (1977). *A Nature Conservation Review*. Cambridge University Press, Cambridge.

The UK Biodiversity Steering Group Report. Volume 2. Action Plans. HMSO, (1995), London.

Wildlife and Countryside Act (1981). HMSO, London.



APPENDICES

Appendix A – Report Conditions

Appendix B – Consultation Response

Appendix C – Photographs

Appendix D – Drawings



APPENDIX A

Report Conditions



WYG ENVIRONMENT

C1 - REPORT CONDITIONS

Fitzalan Link, Greencore Group Plc.

Ecological scoping survey

This report is produced solely for the benefit of Greencore Group Plc. and no liability is accepted for any reliance placed on it by any other party unless specifically agreed in writing otherwise.

This report is prepared for the proposed uses stated in the report and should not be used in a different context without reference to WYGE. In time improved practices, fresh information or amended legislation may necessitate a re-assessment. Opinions and information provided in this report are on the basis of WYGE using due skill and care in the preparation of the report.

This report refers, within the limitations stated, to the environment of the site in the context of the surrounding area at the time of the inspections. Environmental conditions can vary and no warranty is given as to the possibility of changes in the environment of the site and surrounding area at differing times.

This report is limited to those aspects reported on, within the scope and limits agreed with the client under our appointment. It is necessarily restricted and no liability is accepted for any other aspect. It is based on the information sources indicated in the report. Some of the opinions are based on unconfirmed data and information and are presented as the best obtained within the scope for this report.

Reliance has been placed on the documents and information supplied to WYGE by others but no independent verification of these has been made and no warranty is given on them. No liability is accepted or warranty given in relation to the performance, reliability, standing etc of any products, services, organisations or companies referred to in this report.

Whilst skill and care have been used, no investigative method can eliminate the possibility of obtaining partially imprecise, incomplete or not fully representative information. Any monitoring or



survey work undertaken as part of the commission will have been subject to limitations, including for example timescale, seasonal and weather related conditions.

Although care is taken to select monitoring and survey periods that are typical of the environmental conditions being measured, within the overall reporting programme constraints, measured conditions may not be fully representative of the actual conditions. Any predictive or modelling work, undertaken as part of the commission will be subject to limitations including the representativeness of data used by the model and the assumptions inherent within the approach used. Actual environmental conditions are typically more complex and variable than the investigative, predictive and modelling approaches indicate in practice, and the output of such approaches cannot be relied upon as a comprehensive or accurate indicator of future conditions.

The potential influence of our assessment and report on other aspects of any development or future planning requires evaluation by other involved parties.

The performance of environmental protection measures and of buildings and other structures in relation to acoustics, vibration, noise mitigation and other environmental issues is influenced to a large extent by the degree to which the relevant environmental considerations are incorporated into the final design and specifications and the quality of workmanship and compliance with the specifications on site during construction. WYGE accepts no liability for issues with performance arising from such factors.

WYG Environment Planning Transport Ltd.



APPENDIX B

Consultation Responses

From Sussex Biodiversity Records Centre (SxBRC) records



Desktop Review: From Natural England Websites and Magic



Site Check Report

Report generated on November 9 2009.

You clicked on the point:

Grid Ref: **TQ 031 029**

Full Grid Ref: **503125 , 102901**

The following features have been found within 2,000 metres of your search point:

Counties, Metropolitan Districts and Unitary Authorities (GB)

Geographic Level	Name
COUNTY	WEST SUSSEX

NUTS1 - Government Office Regions (GB)

Hotlink	Name	Reference
http://www.statistics.gov.uk/geography/nuts_se.asp	SOUTH EAST	UKJ

Natural Areas (England)

Hotlink	Name	Reference
http://www.naturalareas.naturalengland.org.uk/science/natural/na_details.asp?na_id=74&s=&r=6	SOUTH COAST PLAIN AND HAMPSHIRE LOWLANDS	75

National Character Areas (England)

Hotlink	Name	Reference
HTTP://WWW.NATURALENGLAND.ORG.UK/OURWORK/LANDSCAPE/ENGLANDS/CHARACTER/AREAS/SOUTH_COAST_PLAIN.ASPX	SOUTH COAST PLAIN	126

Ancient Woodland (England)

There are no features within your search area.

Environmental Stewardship Agreements (England)

Scheme	Start Date	Status	Agreement Ref
ENTRY LEVEL STEWARDSHIP	20070701	LIVE	AG00241639
ENTRY LEVEL STEWARDSHIP	20060501	LIVE	AG00268579
ENTRY LEVEL STEWARDSHIP	20061201	LIVE	AG00212914
ORGANIC ENTRY LEVEL STEWARDSHIP	20051101	LIVE	AG00073503

Local Nature Reserves (England)

Name	Reference
WEST BEACH	1009233

National Nature Reserves (England)

There are no features within your search area.



Ramsar Sites (England)

There are no features within your search area.

Special Protection Areas (England)

There are no features within your search area.

Special Areas of Conservation (England)

There are no features within your search area.

Sites of Special Scientific Interest (England)

Citation	Name	Reference
1004174	CLIMPING BEACH	1000225

Important Bird Areas (England)

There are no features within your search area.

Areas of Outstanding Natural Beauty (England)

There are no features within your search area.

Lowland Meadows (England)

There are no features within your search area.

National Parks (England)

There are no features within your search area.

To save the report, select "Save As" from the File menu. Give the report a name of your choice and save it in "Web Page, HTML only" format.
You can then open your report using your web browser software.

[Print Report](#) | [Close Window](#)



South Coast Plain Natural Area

South Coast Plain

The key characteristics of the South Coast Plain are...

- Major urban developments including Portsmouth, Worthing and Brighton linked by the A27/M27 corridor dominate much of the open, intensively farmed, flat, coastal plain.
- Coastal inlets and 'harbours' contain a diverse landscape of narrow tidal creeks, mudflats, shingle beaches, dunes, grazing marshes and paddocks. From the Downs and coastal plain edge there are long views towards the sea and the Isle of Wight beyond.
- Trees are not a dominant feature - there are some small woods and a few windswept individual trees in the farmland or the occasional poplar shelter belt.
- A pattern of large arable fields, defined by low hedgerows, are often interspersed by horticultural glasshouse 'estates' and isolated remnants of coastal heath.
- The complex series of creeks, mudflats and shingle beaches along the coastal edge becomes less apparent to the east with the intensively-farmed plain increasingly dominated by disordered seaside towns and leisure developments.

South Downs Natural Area

South Downs

The key characteristics of the South Downs are...

Prominent Chalk outcrop rising gently from the South Coast Plain with a dramatic north-facing scarp and distinctive chalk cliffs formed where the Downs end abruptly at the sea. A chalk landscape of rolling arable fields and close-cropped grassland on the bold scarps, rounded open ridges and sculpted dry valleys.

Lightly settled landscape with scattered villages, hamlets and farmsteads - flint is conspicuous in the buildings, walls of villages, farms and churches.

Roman roads and drove roads are common and characteristic features and the area is rich in visually prominent prehistoric remains, particularly Neolithic and Bronze Age barrows and prominent Iron Age hillforts.

In the east, rivers from the Low Weald cut through the Downs to form river valleys and broad alluvial floodplains with rectilinear pastures and wet grazing meadows - a contrast with the dry uplands. Above these valleys, the high, exposed, rounded uplands of white chalk have a simple land cover of few trees, an absence of hedgerows, occasional small planted beech clumps, and large arable areas and some grassland.



The eastern Downs have a distinctive escarpment which rises prominently and steeply above the Low Weald. It is indented by steep combs or dry valleys.

- Woodlands - both coniferous and broadleaved - are a distinctive feature of the western Downs.

In the west, large estates are important features with formal designed parkland providing a contrast to the more typical farmland pasture.



APPENDIX C

Photographs

Photos 1-4: Semi-improved neutral grassland-ruderal mosaic- of potential reptile and invertebrate interest



Photos 5-6: Plantation trees- Lombardy poplar and Leyland cypress



Photos 7-8: Leyland cypress conifer hedge along eastern boundary of horse grazed field



Photos 9-13: Broadleaved woodland with densely ivy clad hawthorn trees of potential bat roosting interest



Photos 14-17:- Horse grazed fields



Photos 18-23: Badger latrines and foraging signs



Photo 24-25: Hedgerows along northern boundary with Worthing Road



Photos 26-27- : Hedgerows along site boundary with Littlehampton College



Photos 28-29: Neighbouring residential properties with pitched, tiled roofs and occasionally with hanging tiles along walls



Photos 30-32 : Japanese Knotweed



Photo 33: Areas of ruderal around northern site entrance



Photos 34-37: Scrub areas along the western and north eastern boundaries



Photo 38: Scrub-woodland-semi-improved grassland-ruderal mosaic, with worn footpath



Photos 39-43: Scrub and trees with amenity grassland in southern limit of the site- East Street roundabout



Photos 44-46: Excavations adjacent to woodland strip and numerous mammal paths





APPENDIX D:

DRAWING: GLTD/A044029-2/HAB/02

PHASE 1 HABITAT MAP OF FITZALAN LINK SITE

