LINDSAY CARRINGTON
ECOLOGICAL SERVICES

ECOLOGICAL APPRAISAL
PIDDLEHINTON TRANSIT SITE
PIDDLEHINTON
DORSET
DT2 7SZ

MAY 2020

ON BEHALF OF DORSET COUNCIL

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Authorisation

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The contents of this report were correct at the time of the last survey visit. The report is provided for the sole use of the named client and is confidential.

It is company policy to share species records collected during our surveys with local biological records centres unless instructed otherwise by the client.

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SUMMARY

1. Lindsay Carrington Ecological Services Limited were commissioned by Annabel King of Dorset Council, to conduct an ecological appraisal on land identified as a proposed transit site for the gypsy and traveller community located to the south east of Enterprise Park, Piddlehinton, Dorset DT2 7SZ. The site has previously been used by the community and is currently being used by three caravans. An extension to the permission is required.

2. An ecological appraisal is a multi-disciplinary walk-over survey and was conducted with the objective of identifying any ecological constraints associated with the proposals such as the site's potential to support any legally protected species or habitats of high nature conservation value.

3. The site currently comprises recently grazed semi-improved calcareous grassland, scrub, colonised hardstanding and woodland habitat. Three caravans and associated vehicles were also present on site.

4. The grassland habitat on site supports both common and widespread species as well Dorset notables including the common bird's-foot trefoil and cowslip. The grassland is considered to hold botanical value and as such recommendations to manage the grassland have been made in section 5.1.

5. The woodland habitat is fragmented and has not been managed. Recommendations to manage the woodland including thinning the understory have been provided in section 5.1.

6. The site has the potential to support a number of protected species including bats and dormice however due to the nature of the proposals no impacts are likely to occur, however in the event that lighting is proposed the scheme will follow the recommendations provided in section 5.2.

7. Recommendations have been provided in section 5.3 to enhance the site for ecology including the provision of bird and bat boxes.

1.0 INTRODUCTION

Lindsay Carrington Ecological Services Limited were commissioned by Annabel King of Dorset Council, to conduct an ecological appraisal on land identified as a proposed transit site for the gypsy and traveller community located to the south east of Enterprise Park, Piddlehinton, Dorset DT2 7SZ (Grid reference: SY72519640). A site location plan has been provided as appendix I.

An ecological appraisal is a multi-disciplinary walk-over survey and was conducted with the objective of identifying any ecological constraints associated with the proposals such as the site's potential to support any legally protected species or habitats of high nature conservation value.

Section 2 of the report provides some background information on legislative requirements and relevant policy. Section 3 details the methodologies adopted for the ecological surveys that were conducted and section 4 provides an account of the survey results. Section 5 provides information on the relevance of the results to the proposed development and makes recommendations for measures to mitigate and compensate for the effects on a particular habitat or species.

2.0 LEGISLATION AND POLICY

2.1 Legislation

The following legislation may be of relevance to the proposed works. Full details of statutory obligations with respect to biodiversity and the planning system can be found in DCLG Circular 06/2005.

- **The Conservation of Habitats and Species (Amendments) (EU Exit) Regulations 2019:**
  This transposes the EU Habitats Directive (Council Directive 92/43/EEC) into domestic law and ensures that the habitat and species protection and standards will continue to apply upon the UK's exit from the EU. The Regulations provide protection for a number of species including:

  - All species of bat
  - Dormouse (*Muscardinus avellanarius*)
  - Great crested newt (*Triturus cristatus*).

  This legislation makes it an offence to deliberately capture, kill or injure individuals of these species listed on Schedule 2 and damage or destroy their breeding site or place of shelter. It is also illegal to deliberately disturb these species in such a way as to be likely to significantly affect: (i) the ability of any significant group of the species to survive, breed or rear or nurture their young; or (ii) the local distribution or abundance of the species[1].

  This legal protection means that where development has the potential to impact on bats, or other species of national interest[2], the results of a protected species survey must be submitted with a planning application.

  Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) are also protected under this legislation. These are a network of sites designated for supporting habitats or species of high nature conservation importance in the European context. Any activity that has a detrimental effect on these European

[1] The *Conservation of Habitats and Species (Amendments) (EU Exit) Regulations 2019* transposes the Conservation of Habitats and Species Regulations 2017 to allow the protection of habitat and species to continue unchanged once the UK leaves the EU. The 2017 Regulations consolidated the numerous amendments that were made to the Conservation (Natural Habitats, &c.) Regulations 1994. Of particular relevance are amendments made in August 2007and January 2009 which increased the threshold of illegal levels of disturbance to European Protected Species (EPS). An offence is only committed if the deliberate disturbance would result in significant impacts to the EPS population. However, it should be noted that activities that cause low levels of disturbance to these species continue to constitute an offence under Section 9 of the Wildlife and Countryside Act (see below).

[2] Species of wild fauna and flora as listed in Annex II, IV or V to the Habitats Directive.

sites[3] is made an offence under the Regulations. Where a development is likely to have a significant impact on a European site, the Regulations require a rigorous assessment of the impacts, known as an Appropriate Assessment.

- **The Wildlife and Countryside Act 1981 (and amendments):** Protected fauna and flora are listed under Schedules 1, 5 & 8 of the Act. Species likely to be of relevance include:
    - All species of **bat.** It is an offence to intentionally or recklessly disturb any bat whilst it is occupying a roost or to intentionally or recklessly obstruct access to a bat roost
    - All species of British **reptile** (in particular grass snake (*Natrix helvetica*), common lizard (*Zootoca vivipara*), adder (*Vipera berus*) and slow-worm (*Anguis fragilis*)). It is illegal to kill or injure these species
    - **Great crested newt.** It is illegal to obstruct access to any structure or place which great crested newts use for shelter or protection or to disturb any great crested newt while it is using such a place
    - **Water vole** (*Arvicola amphibius*). It is an offence to intentionally kill, injure or take water vole, intentionally or recklessly damage, destroy, obstruct access to water vole burrows or disturb them whilst in a burrow.

This Act also makes it an offence to intentionally kill, injure or take any wild bird or to take, damage or destroy their eggs and nests (whilst in use or being built). In addition, it is an offence to disturb any nesting bird listed on Schedule 1 or their young.

Schedule 9 of the Act lists those species for which it is an offence to cause their spread. Schedule 9 species that are most likely to be encountered are Japanese knotweed (*Fallopia japonica*) and New Zealand pigmyweed (*Crassula helmsii)*.

Sites of Special Scientific Interest (SSSIs) are also protected under the Wildlife and Countryside Act 1981. These are a network of sites identified as being of national nature conservation importance and hence afforded legal protection.

National Nature Reserves (NNRs) are also protected under the Act (section 35 (1)) and established under the National Parks and Access to the Countryside Act 1949. These are nature reserves which are considered to be of national importance by the relevant statutory bodies i.e. Natural England, Natural resource Wales.

- **Natural Environment and Rural Communities Act (NERC) 2006**: This Act enforces a duty on the planning authority and local council to conserve biodiversity (section 40). Additionally, section 41 encourages the local councils to

[3] Current reference to European sites, Special Area of Conservation and Special Protection Area are retained under the amendments to the *Conservation of Habitats and Species (Amendments) (EU Exit) Regulations 2019*.

be aware of the species and habitats of 'principal importance' and to act accordingly to protect and manage these habitats and species.

- **The Countryside and Rights of Way Act 2000:** This Act strengthens nature conservation and wildlife protection. It places a duty on Government Ministers and Departments to conserve biological diversity, provides police with stronger powers relating to wildlife crimes, and improves protection and management of SSSIs.

- **The Protection of Badgers Act 1992:** This Act makes it an offence to wilfully take, injure or kill a badger (*Meles meles*); cruelly mistreat a badger; interfere with badger setts. A licence is required for work which may damage or disturb a sett.

- **Wild Mammals (Protection) Act 1996:** This Act provides protection for all wild animals from intentional acts of cruelty.

- **Hedgerow Regulations 1997:** These Regulations establish a set of criteria for assessing the importance of hedgerows. Where a hedgerow is deemed to be 'important' its removal is prohibited without consent from the local Planning Authority

2.2 Policy

The following policy is of relevance to the proposed works:

- **National Planning Policy Framework (NPPF):** This sets out the Government's vision for biodiversity in England with the broad aim that planning, construction, development and regeneration should maintain and enhance, restore or add to biodiversity and geological conservation interests. NPPF (2019) includes sections on legally protected species and sites in section 15 (2) (see section 2.1).

- **Local Sites (including Sites of Nature Conservation Interest (SNCIs), Local Nature Reserves (LNR), and Biological Notification Sites (BNSs)/Local Wildlife Sites (LWSs)):** These are a network of sites designated for their nature conservation importance in a local context. Where such development is permitted, the local planning authority will use conditions and/or planning obligations to minimise the damage and to provide compensatory and site management measures where appropriate.

- **Natural England Protected Species Standing Advice**: The standing advice is used by local authorities as a fall back position when in pre-application consultation or during the determination period to define habitat and species survey efforts and mitigation proposals.

- **Dorset Biodiversity Planning Protocol Guidance (2020):** This sets out Dorset Council's recommended way to review planning applications in relation to biodiversity and meets the requirements of the Natural England Protected Species Standing Advice. The production of a Biodiversity Plan (BP) is required and will be conditioned as a means of clearly identifying and securing mitigation for wildlife site, protected habitats and species.

- **Biodiversity Action Plans (BAPs):** BAPs set out policy for protecting and restoring priority species and habitats as part of the UK's response as signatories to the Convention on Biological Diversity. BAPs operate at both a national and local level with priority species and habitats identified at a national level and a series of Local BAPs that identify ecological features of particular importance to a particular area of the country. The requirement to consider and contribute towards BAP targets is derived from the NERC Act 2006 and was strengthened through the Countryside and Rights of Way Act 2000. Habitat and Species Action Plans that are likely to be of relevance include:

    - Reptiles (UK BAP)
    - Brown long-eared bat (*Plecotus auritus*) (UK BAP)
    - Soprano pipistrelle (*Pipistrellus pygmaeus*) (UK BAP).
    - House sparrow (*Passer domesticus*) (UKBAP)
    - Starling (*Sturnus vulgaris*) (UKBAP)

3.0 METHODOLOGY

3.1 Desk study

Dorset Environmental Records Centre (DERC) provided protected species records within two kilometres of the site boundary and details on non-statutory designated sites. The Multi-Agency Geographical Information for the Countryside (MAGIC) website was used to provide any information relating to statutory designated sites within five kilometres of the proposed development.

3.2 Field study

3.2.1 Vegetation

The standard phase 1 habitat survey methodology (JNCC, 2010) was adopted whereby habitats are mapped using colour codes (appendix II). A detailed walkover survey was undertaken by Jenny Sutch on the 6th May 2020, directly searching for legally protected and invasive species of plant and categorising any habitats of ecological value that were encountered. A general description of the vegetation was also noted, listing species encountered and scoring their abundance using the DAFOR scale:

D Dominant
A Abundant
F Frequent
O Occasional
R Rare
L Local (used as a prefix to any of the above)

Limitations

During the walkover survey every effort is made to ensure invasive species are identified including Japanese knotweed, however as this is a preliminary ecological appraisal, recommendations for further invasive species surveys will be made when considered necessary.

3.2.2 Protected species assessment

Habitats and features were assessed for their potential to support protected and notable species (see section 2). In many cases determining the presence, distribution and population size of protected species will require additional, specialist surveys.

Badger

A direct search was undertaken for signs of badgers across the site. Signs of badgers may include setts, dung pits, latrines, paths or hairs on fences and vegetation. Any setts encountered were classified according to the number of entrances and the extent of their use.

Bats

Potential for the site to support roosting, foraging and commuting bats was assessed in accordance with the Bat Conservation Trust (BCT) *Bat Surveys for Professional Ecologists Good Practice Guidelines* (Collin *et al*. 2016). Where suitable habitat is identified further recommendations will be made.

Great crested newt

Suitable breeding ponds are essential to support populations of great crested newt although they actually only spend a relatively short period of the year in the ponds during the spring for breeding. The remainder of the year is spent in suitable 'foraging' habitat such as tall grassland and woodland. During the winter great crested newts hibernate, often amongst the roots of trees and scrub or in places such as piles of rubble, amongst foundations of buildings or under fallen trees and logs.

Great crested newts are known to forage up to at least 500 metres from their breeding sites and suitable habitats that fall within 500 metres must be considered even in situations where the breeding site itself will not be affected. Suitable breeding habitat, and the presence of suitable terrestrial habitat within the development site were assessed during this survey.

Hazel dormouse

The habitat on the site was assessed for the potential to support hazel dormouse, which are found in habitats such as woodlands, scrub and hedgerows with good connectivity and suitable food plants. Satellite images were used to assess the connectivity of any suitable habitat present on the site to other areas of woodland and hedgerow networks.

Reptiles

Reptiles are widespread in habitats that provide both cover in the form of scrub or tall vegetation, and basking areas such as areas of hardstanding or short grassland communities. Piles of debris or rubble also provide excellent cover and hibernation sites for reptiles. The site was assessed for its potential to support reptile species and recommendations for further action made where appropriate.

4.0 RESULTS

4.1 Desk study

Statutory and non-statutory sites

Table 1 below lists statutory sites designated for nature conservation located within five kilometres of the site, and non-statutory sites within two kilometres of the site.

Table 1: Statutory and non-statutory designated sites

Site name	Conservation status	Distance from site	Size (Ha)	Habitat description
Lyscombe and Highdon	SSSI[4]	4.4 km north east	82.91	Chalk slopes situated between the River Piddle and Devils Brook which support an important example of rich and attractive chalk flora of central Dorset.
Muston Farm	SNCI[5]	0.55 km south west	7.6	Supports meadows of unimproved and semi-improved calcareous grassland and scrub.
Muston Copse	SNCI	0.6 km north east	1.46	A small copse of ash (*Fraxinus excelsior*) and sycamore (*Acer pseudoplatanus*) over a chalk soil. Listed on the provisional inventory for ancient woodland.
Home Eweleaze	SNCI	1.7 km east	2.3	Calcareous grassland on a west-facing chalk bank.
Waterston Springs	SNCI	1.9 km south east	0.5	A small area of wet meadow located next to disused watercress beds.

No impacts are anticipated on the designated sites due to the size of the proposed development and the distance between the development site and the designated sites. As such no further action is required.

Protected species records

Table 2 below presents the results of the search for relevant protected species highlighted by DERC within two kilometres of the site boundary.

[4] SSSI: Site of Special Scientific Interest
[5] SNCI: Sites of Nature Conservation Importance

Table 2: Protected and notable species within a two kilometre radius of the site.

Common name	Scientific name	Status	Records (dates post 2000 only)
Reptiles and Amphibians			
Slow worm	*Angius fragilis*	Schedule 5 WCA[6], NERC[7]	3 records dated between 2012 and 2013.
Birds			
House martin	*Delichon urbicum*	Amber List BoCC[8]	2 records dated between 2010 and 2013.
Little egret	*Egretta garzetta*	Annex 1[9]	1 record dated 2013.
Yellowhammer	*Emberiza citrinella*	NERC, Red list BoCC	1 record dated 2010.
Red kite	*Milvus milvus*	Schedule 1 WCA, Annex 1, Amber List BoCC	1 record dated 2013.
House sparrow	*Passer domesticus*	NERC, Red list BoCC	5 records dated between 2010 and 2016.
Willow warbler	*Phylloscopus trochilus*	Amber list BoCC	1 record dated 2013.
Golden plover	*Pluvialis apricaria*	Annex 1, Amber List BoCC	1 record dated 2015.
Dunnock	*Prunella modularis*	NERC, Amber list BoCC	1 record dated 2010.
Bullfinch	*Pyrrhula pyrrhula*	NERC, Red list BoCC	2 records dated between 2011 and 2013.
Starling	*Sturnus vulgaris*	NERC, Red list BoCC	1 record dated 2010.
Song thrush	*Turdus philomelos*	NERC, Red list BoCC	1 record dated 2010.
Barn owl	*Tyto alba*	Schedule 1 WCA	1 record dated 2016.
Terrestrial Mammals			
Western European Hedgehog	*Erinaceus europaeus*	NERC	1 record dated 2014.
Brown hare	*Lepus europaeus*	NERC	1 record dated 2012.
European otter	*Lutra lutra*	Schedule 5 WCA, Schedule 2 Habs Regs[10], NERC	2 records dated between 2017 and 2019.
Badger	*Meles meles*	PBA[11]	16 records dated between 2010 and 2018.
Bats			
Bats sp	*Chiroptera sp*	Schedule 2 Habs Regs, Schedule 5 WCA, UK BAP[12]	1 record dated 2014.

[6] WCA: The Wildlife and Countryside Act 1981 (as amended)
[7] NERC: Natural Environment and Rural Communities Act 2006
[8] BoCC: Birds of Conservation Concern
[9] Annex 1: As listed within the Birds Directive
[10] Habs Regs: The Conservation of Habitats and Species (Amendments) (EU Exit) Regulations 2019
[11] PBA: Protection of Badgers Act (1992)
[12] UK BAP: UK Biodiversity Action Plan species

Common name	**Scientific name**	**Status**	**Records (dates post 2000 only)**
Serotine	*Eptesicus serotinus*	Schedule 2 Habs Regs, Schedule 5 WCA, UK BAP	1 record dated 2015.
Pipistrelle species	*Pipistrelle* sp.	Schedule 2 Habs Regs, Schedule 5 WCA	2 records dated between 2001 and 2002.
Long-eared species	*Plecotus sp.*	Schedule 2 Habs Regs, Schedule 5 WCA, UK BAP	2 records dated between 2001 and 2002.
Brown long-eared bat	*Plecotus auritus*	Schedule 2 Habs Regs, Schedule 5 WCA, UK BAP	1 record dated 2015.
Plants			
Quaking-grass	*Briza media*	Dorset notable	4 records dated between 2010 and 2016.
Harebell	*Campanula rotundifolia*	Dorset notable	2 records dated 2016.
Whorl-grass	*Catabrosa aquatica*	Dorset notable	1 record dated 2010.
Galingale	*Cyperus longus*	Dorset notable	1 record dated 2015.
Dwarf spurge	*Euphorbia exigua*	Dorset notable	2 records dated between 2015 and 2017.
Common cudweed	*Filago vulgaris*	Dorset notable	1 record dated 2015.
Autumn gentian	*Gentianella amarella*	Dorset notable	1 record dated 2012.
Bluebell	*Hyacinthoides non-scripta*	Schedule 8 WCA, Dorset notable	8 records dated between 2016 and 2018.
Hoary plantain	*Plantago media*	Dorset notable	1 record dated 2010.
Ragged-Robin	*Silene flos-cucli*	Dorset notable	2 records dated 2010.
Devil's-bit scabious	*Succisa pratensis*	Dorset notable	4 records dated between 2010 and 2016.
Invertebrates			
Small heath	*Coenonympha pamphilus*	NERC	3 records dated between 2011 and 2014.
Wall	*Lasiommata megera*	NERC	1 record dated 2010.
Black oil-beetle	*Meloe proscarabaeus*	NERC	1 record dated 2014.
Violet oil-beetle	*Meloe violaceus*	NERC	1 record dated 2011.

These records of protected and notable species in the vicinity of the site increase the likelihood of them being present where suitable habitat is identified in the field survey.

4.2 Field survey

4.2.1 Vegetation

The accompanying phase 1 habitat map provided as appendix II depicts the habitats encountered and highlights areas of particular interest with target notes. The site is currently used for grazing horses for part of the year and previously formed part of the military barracks with remains of old buildings footings recorded. The site is currently being used to house three caravans and their families. The wider landscape comprises intensively managed farmland with an extensive hedgerow network and Enterprise Park located to the immediate north and west of the site.

Descriptions of the habitats on site are provided below:

Semi-improved calcareous grassland (target note 1)

The site comprises a large semi-improved calcareous grassland field (measuring 1.47 ha) divided into two by a post and wire fence. The field is situated on a slope which is south facing. The sward height was approximately 1 to 2 centimetres and had been grazed over the winter period with horses only recently being removed from site. Species present included an abundance of herbs including the Dorset notable common bird's-foot trefoil (*Lotus corniculatus*) and cowslip (*Primula veris*). Areas of the grassland were disturbed and species associated within disturbed ground was recorded including greater plantain (*Plantago major*) and wavy bittercress (*Cardamine flexuosa*). Species encountered are presented in table 3 below.

Table 3: Plant species recorded within the semi improved calcareous grassland

Common name	Latin name	Abundance	Status
Grasses, ferns and mosses			
Creeping bent	*Agrostis stolonifera*	LF	Common in grasslands of all kinds except on most acidic soils
Barren brome	*Bromus sterilis*	LA	Common on dry hedge banks, waste ground & roadside
Soft brome	*Bromus hordeaceus*	LF / O	Common on moist, dry grassland & wasteland
Spring sedge	*Carex caryophyllea*	LA/ O	Common in neutral and calcareous grasslands
Cock's-foot	*Dactylis glomerata*	O	Common & widespread
Red fescue	*Festuca rubra*	F	Common & widespread
Yorkshire fog	*Holcus lanatus*	LF	Common & widespread
Perennial rye-grass	*Lolium perenne*	O	Common & widespread
Annual meadow-grass	*Poa annua*	LO	Abundant in grasslands, cultivated ground & wasteground
Meadow-grass sp	*Poa sp*	O	Common and widespread

Common name	Latin name	Abundance	Status
Herbaceous plants			
Yarrow	*Achillea milliefolium*	A / LF	Very common in meadows and grasslands
Daisy	*Bellis perennis*	F	Common & widespread
Wavy bittercress	*Cardamine flexuosa*	LO	Common in waste grounds and garden, and stream sides.
Common mouse-ear	*Cerastium fontanum*	O	Common & widespread
Common stork's-bill	*Erodium cicutarium*	LO	Common & widespread
Cleavers	*Galium aparine*	LO	Common & widespread
Cut-leaved crane's-bill	*Geranium dissectum*	LO	Common & widespread
Dove's-foot crane's-bill	*Geranium molle*	F	Common & widespread
Ground-ivy	*Glechoma hederacea*	O	Common & widespread
Hogweed	*Heracleum sphondylium*	LF / O	Common & widespread
Cat's-ear	*Hypochaeris radicata*	O	Common & widespread
Rough hawkbit	*Leontodon hispidus*	O / LF	Common on calcareous grasslands, meadows and fens
Common bird's-foot trefoil	*Lotus corniculatus*	LA / F	Very common in grasslands
Field forget-me-knot	*Myosotis arvensis*	O	Common & widespread
Mouse-ear-hawkweed	*Pilosella officinarum*	LA/ O	Common & widespread
Ribwort plantain	*Plantago lanceolata*	LF	Common & widespread
Greater plantain	*Plantago major*	LO	Common & widespread
Cowslip	*Primula veris*	LA/ F	Common in meadows, grasslands, open woods
Creeping cinquefoil	*Potentilla reptans*	LA / F	Very common in lowland hedge banks, grasslands and wasteground.
Creeping buttercup	*Ranunculus repens*	F	Common & widespread
Yellow-rattle	*Rhinanthus minor*	LF / O	Common in grasslands and dunes.
Common sorrel	*Rumex acetosa*	O	Very common in grasslands and open woods
Broad-leaved dock	*Rumex obtusifolius*	LR	Common & widespread
Dandelion	*Taraxacum agg.*	LO	Common & widespread
Red clover	*Trifolium pratense*	LF	Common & widespread
White clover	*Trifolium repens*	LF	Common & widespread
Germander speedwell	*Veronica chamaedrys*	LA/F	Very common in woods, hedge banks and grasslands
Field speedwell	*Veronica persica*	LF	Common & widespread
Common vetch	*Vicia sativa*	O	Common & widespread

Species present within the grassland are common and widespread, although a number of species identified within the grassland are considered to have some botanical value.

Further recommendations are provided in section 5.1. This habitat also provides suitable habitat to support bat, badger, amphibians and reptile species. This is discussed further in section 4.2.2.

Scrub (target note 2)

Scrub habitat is present across the site in several small patches (totally an area of 0.26 ha). Species present include frequent occurrences of elder (*Sambucus nigra*), and hawthorn (*Crataegus monogyna*) with frequent to abundant common nettle (*Urtica dioica*), hogweed (*Heracleum sphondylium*) and frequent to occasional occurrences of broad-leaved dock (*Rumex obtusifolius*) and creeping thistle (*Cirsium arvense*). Rubble was also noted beneath one area of scrub.

Bramble scrub was also recorded along part of the fence line on the western boundary where a series of young cherry (*Prunus* sp) trees were noted.

Species present are common and widespread and hold low botanical value, however these areas have the potential to support nesting birds and reptiles which are discussed further in section 4.2.2.

Colonised hardstanding (target note 3)

An area measuring 0.07 ha of hardstanding is present which was laid approximately 3 years previously, to infill a large depression. The hardstanding has since been colonised by species including ragwort (*Senecio jacobaea*), spear thistle (*Cirsium vulgare*), ribwort plantain (*Plantago lanceolata*), barren brome (*Anisantha sterilis*), butterfly bush (*Buddleja davdii*), daisy (*Bellis perennis*), hogweed, creeping cinquefoil (*Potentilla reptans*), common nettle, creeping buttercup (*Ranunculus repans*) and cow parsley (*Anthriscus sylvestris*).

Species present are common and widespread and the habitat hold negligible ecological value. As such no further action is required.

Broad-leaved woodland (target note 4)

Scattered trees were recorded along the eastern part of the site and extended into the southern half of the site. According to MAGIC, this area is denoted as broad-leaved deciduous woodland and measures 0.42 ha. A number of mature trees were recorded including horse chestnut (*Aesculus hippocastanum*), beech (*Fagus sylvatica*) and sycamore (*Acer pseudoplatanus*), with an understory of blackthorn (Prunus spinosa) and bramble (*Rubus fruticosus* agg), with a sparse ground flora. Amongst the trees and shrubs paths have been made with large expanses of grassland present fragmenting the woodland habitat, creating patches of scattered trees and shrubs rather than a continuous woodland block. Species encountered are presented in table 4 below.

Table 4: Plant species recorded within the fragmented woodland habitat

Common name	Latin name	Abundance	Status
Canopy			
Horse chestnut	*Aesculus hippocastanum*	O	Very common & widespread
Sycamore	*Acer pseudoplatanus*	O	Common & widespread
Hawthorn	*Crataegus monogyna*	O	Common & widespread
Beech	*Fagus sylvatica*	O	Common in woods on chalk, limestone and light loams
Pine	*Pinus sp*	O	Common & widespread
Understory			
Blackthorn	*Prunus spinosa*	LF	Common & widespread
Bramble	*Rubus fruticosus agg*	LD/ F	Common & widespread
Elder	*Sambucus nigra*	LF	Common & widespread
Ground flora			
Cow parsley	*Anthriscus sylvestris*	O	Common & widespread
Burdock sp	*Arctium sp*	R	Common
Creeping thistle	*Cirsium arvense*	O	Common & widespread
Willowherb sp	*Epilobium sp*	O	Common & widespread
Cleavers	*Galium aparine*	LF	Common & widespread
Hogweed	*Heracleum sphondylium*	LF	Common & widespread
Yorkshire-fog	*Holcus lanatus*	LF	Common & widespread
Perforate St John's-wort	*Hypericum perforatum*	O	Very common in scrub, hedge banks, grassland and roads.
Cowslip	*Primula veris*	O	Common in meadows, grasslands, open woods
Creeping buttercup	*Ranunculus repens*	LO	Common & widespread
Broad-leaved dock	*Rumex obtusifolius*	LF	Common & widespread
Red campion	*Silene dioica*	O	Common & widespread
Dandelion	*Taraxacum agg*	LF	Common & widespread
Common nettle	*Urtica dioica*	LF	Common & widespread

Species present are common and widespread but have the potential to support badgers, bats, reptiles, amphibians and nesting birds. This is discussed further in section 4.2.2.

4.2.2 Protected species assessment

Badger

Despite a thorough search, no evidence of badgers, including setts, dung pits, latrines, paths or fur, was identified with the site.

No further action is required.

Bats

Trees

There are a number of mature trees present on site within the fragmented woodland habitat which could provide suitable roosting features for bats. A detailed assessment of the trees was not made due to no proposed impacts to the trees on site. The elder and hawthorn scrub patches within the northern field where the majority of the caravans will be located did not hold any potential roost features such as splits, cracks or woodpecker holes.

No further action is required, however if proposals change and any trees are required to be felled than a detailed tree inspection of potential roosting features will be required.

Foraging and commuting habitat

The semi-improved grassland, scrub and fragmented woodland habitat on site have been assessed as moderate value foraging/commuting habitat for bats according to the BCT Guidelines (Collins et al, 2016). These habitats are likely to support a diverse assemblage of invertebrate prey and they are also well connected with further suitable habitat in the surrounding area, which include hedgerows, woodland, farmland, residential housing with associated gardens, all of which could provide suitable foraging and commuting habitat for bats. DERC also returned four records of bat roosts within 2 kilometres of the site.

The proposals for the site are temporary and no fixed structures will be constructed. Bats will therefore be able to continue to forage and commute across the site. There is likely to be some light spill from the caravans however the caravans will be sited within the open field away from the fragmented woodland habitat. As such the proposals are considered to have a negligible impact upon the local bat population. In the event that lighting will be provided on site further recommendations have been made in section 5.2.

Great crested newt

No records of great crested newt were returned from DERC, and no waterbodies were recorded son site, although two waterbodies were recorded within 500 metres of the site boundary.

One pond was located approximately 350 metres north east of the site and from aerial images is located within an arable field with a track leading to the waterbody and surrounding it. Little vegetation appears to be present around the waterbody.

The second waterbody was located approximately 240 metres north west of the site and appears to be rectangle in shape and located within Enterprise Park and surrounded by amenity grassland, hardstanding and buildings.

Suitable terrestrial habitat was recorded on site but in isolated areas. The scattered scrub patches, particularly within the north of the field with rubble present provides suitable foraging and sheltering habitat. This area however is isolated and surrounded by managed grassland and disturbed ground which does not provide suitable shelter or cover for newts moving across the site. The fragmented woodland provides some potential hibernation habitat amongst the roosts however this area is also surrounded by managed grassland and arable crops to the west.

The site is therefore considered to be sub-optimal for great crested newts and isolated from the wider landscape due to existing habitat management practices.

The proposals for the site will not impact on any newt potential breeding waterbodies or terrestrial habitat. As such the proposals will have a negligible impact upon great crested newts should they be present within the area and no further action is required.

Hazel dormouse

DERC returned no records of the hazel dormouse within 2 kilometres of the site. The scattered scrub and woodland habitat are suitable for supporting the hazel dormouse and are connected to the other suitable habitat, such as hedgerows on the eastern boundary which connect to woodland on the wider landscape. The habitat on site is fragmented however, the tree canopies do connect in places and the grassland habitat would not prevent the dormouse from crossing open expanses.

The woodland habitat provides some suitable food sources for the dormouse, however the understory in areas was spare with bare ground and little ground flora.

There is potential for the site to support the hazel dormouse however the proposals will not impact upon the suitable habitats present and as such no further action is required.

Reptiles

DERC returned three records of slow worm within 2 kilometres of the site. Suitable habitat to support common reptile species such as slow worm was recorded on site but in isolated areas.

The area of scattered scrub comprising elder and ruderal vegetation also contained rubble which provides suitable foraging and sheltering habitat. This area however was surrounded by grassland which had recently been grazed creating a short sward height which would not be suitable for reptiles to move through. In addition, the fragmented woodland provides some potential hibernation habitat amongst the roosts however this area is also surrounded by managed grassland and arable crops to the west.

The site is therefore considered to be sub-optimal for reptiles and isolated from the wider landscape due to existing habitat management practices.

The proposals for the site will not impact on any potential reptile habitat. As such the proposals will have a negligible impact upon reptiles should they be present within the area and no further action is required.

Nesting birds

The scrub and trees present on site hold potential to support nesting birds.

No vegetation removal is proposed to facilitate the development. Therefore, no impacts are anticipated upon potential nesting birds. As such no further action is required.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The site is temporarily being used by three caravans and their families, and the proposals for the site to become a permanent gypsy and traveller transit site will have limited impact upon habitats and species present. The site was generally considered to be of moderate botanical value. Recommendations have been made to ensure the habitats are retained and enhanced on site. Through the following proposals there will be a positive net gain in biodiversity on site.

5.1 Habitats

The semi-improved grassland on site is calcareous in nature and has the potential to support a rich botanical diversity. The habitats on site will not be lost and the caravans on site are temporary structures which can be moved and are likely to move around following the traditions of the gypsy and traveller community. The following management prescriptions are recommended for the site.

Scrub

- The scrub habitat on site provides a good mosaic of habitats across the wider site. There are however areas of scrub with ruderal vegetation present. The ruderal vegetation including common nettle, broad-leaved dock and creeping thistle need to be managed to ensure scrub encroachment into the grassland does not occur. Regular cutting of this area should continue, and arisings removed.

Grassland

- Current management of the grassland includes cutting in the spring and then grazing over the winter period. Where cutting takes place the arisings should be removed of site and should take place in late summer and not before August.
- Grazing is good management for this grassland, however the number of animals on site needs to be kept low and monitored. Areas to the south of the site were poached during the winter (located at the bottom of the slope) and therefore the current number of grazing animals is at its maximum.
- To create a mosaic of habitats the southern field could be divided into two to allow grazing to take place in one area and rotate. Horse grazing will also help to manage scrub encroachment.

Woodland

The fragmented woodland habitat has not been managed for a number of years and therefore the following should be implemented.

- The understory of blackthorn and bramble along the eastern boundary should be thinned. This will allow for ground flora to establish.
- Ruderal vegetation including common nettle should be managed and cut to allow for herbs to establish.

Other

- The area of hardstanding should be managed to prevent ragwort and buddleja from self seeding across the site. This area would be an ideal location to locate any caravans or vehicles.
- The community are likely to bring dogs onto site with them. This will increase the nitrate levels on site through dogs urinating. Where possible it should be encouraged that a designated area around the scrub habitat is used.
- Where caravans are moved from the site any new caravans coming in should be sited elsewhere to allow for the shaded grassland to re-establish.

5.2 Bats

In the event that a lighting scheme needs to be produced, this should be agreed with an ecologist in accordance with BCT Guidance Note 08/18 Bats and Artificial Lighting in the UK. Lighting used within the site will need to adhere to the following.

- Using LED lighting with light levels kept as low as practically possible (between 1 and 3 lux).
- Lighting will be directed to where it is needed (away from the woodland) through the design of the luminaire and by using accessories such as cowls or hoods.
- Lights will not be on constantly throughout the night creating dark periods to allow bats to continue foraging without light spill affecting them.
- Using light sources that emit minimal ultra-violet light, peak higher than 550nm and that are of a warm/neutral colour <2,700 kelvin.
- Using security lighting that is on a timer and only triggered at waist height.

5.3 Ecological enhancement

A few suggestions for ecological enhancements across the site have been made below:

- Provision of bat boxes for bat species, while bird nest boxes can also be provided for species such as house sparrow (*Passer domesticus*). Bird and bat boxes on site would enhance the habitat for the local bat and bird populations. They can be installed appropriately in the woodland.
- Provision of log and brushwood piles alongside the eastern boundary would provide refugia and hibernacula for reptiles and other fauna such as hedgehog (*Erinaceus europaeus*) and invertebrates.

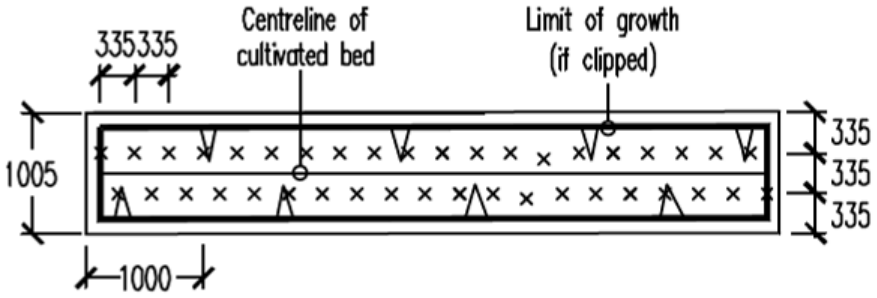
- In order to provide a net gain in biodiversity on site, a native hedgerow will be installed along the western boundary and will measure 150 metres in length. New species-rich native hedgerows with five standard trees will be planted. This will provide an additional habitat resource on site for a range of fauna, improve habitat connectivity, enhance the aesthetic appeal of the site, and provide natural screening of the site.

  New hedgerow planting on site will be in accordance with the recommended species and planting proportions detailed in table 5 below and following the planting pattern illustrated in diagram 1.

Table 5: Species to be included in hedgerow planting

Species	Proportion within hedgerow
Spindle (*Euonymous europaea*)	10%
Hawthorn (*Crataegus monogyna*)	15%
Blackthorn (*Prunus spinosa*)	15%
Field maple (*Acer campestre*)	15%
Dog rose (*Rosa canina*)	5%
Hazel (*Corylus avellana*)	20%
Elder (*Sambucus nigra*)	10%
Crab apple (*Malus sylvestris*)	5%
Guelder-rose (*Viburnum opulus*)	5%
Pedunculate oak (*Quercus robur*) will be used for standard tree planting within the hedgerow.	

Diagram 1: Planting Pattern



6.0 REFERENCES

Bright, P., Morris. P and Mitchell-Jones, T. (2006) *The dormice conservation handbook, second edition*. English Nature.

CIEEM (2017). *Guidelines for Preliminary Ecological Appraisal*, Second Edition. Chartered Institute of Ecology and Environmental Management, Winchester.

Collins, J., Charleston, P., Davidson-Watts, I., Markham, S. and Kerslake, L. (2016). *Bat Surveys for Professional Ecologists Good Practice Guidelines*. Bat Conservation Trust, London.

Department for Communities and Local Government (2005). *Circular 06/2005: Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System.*

Dorset Environmental Records Centre (2020). *Data search reference - DERC Ref: 06/05/2020 Piddlehinton*

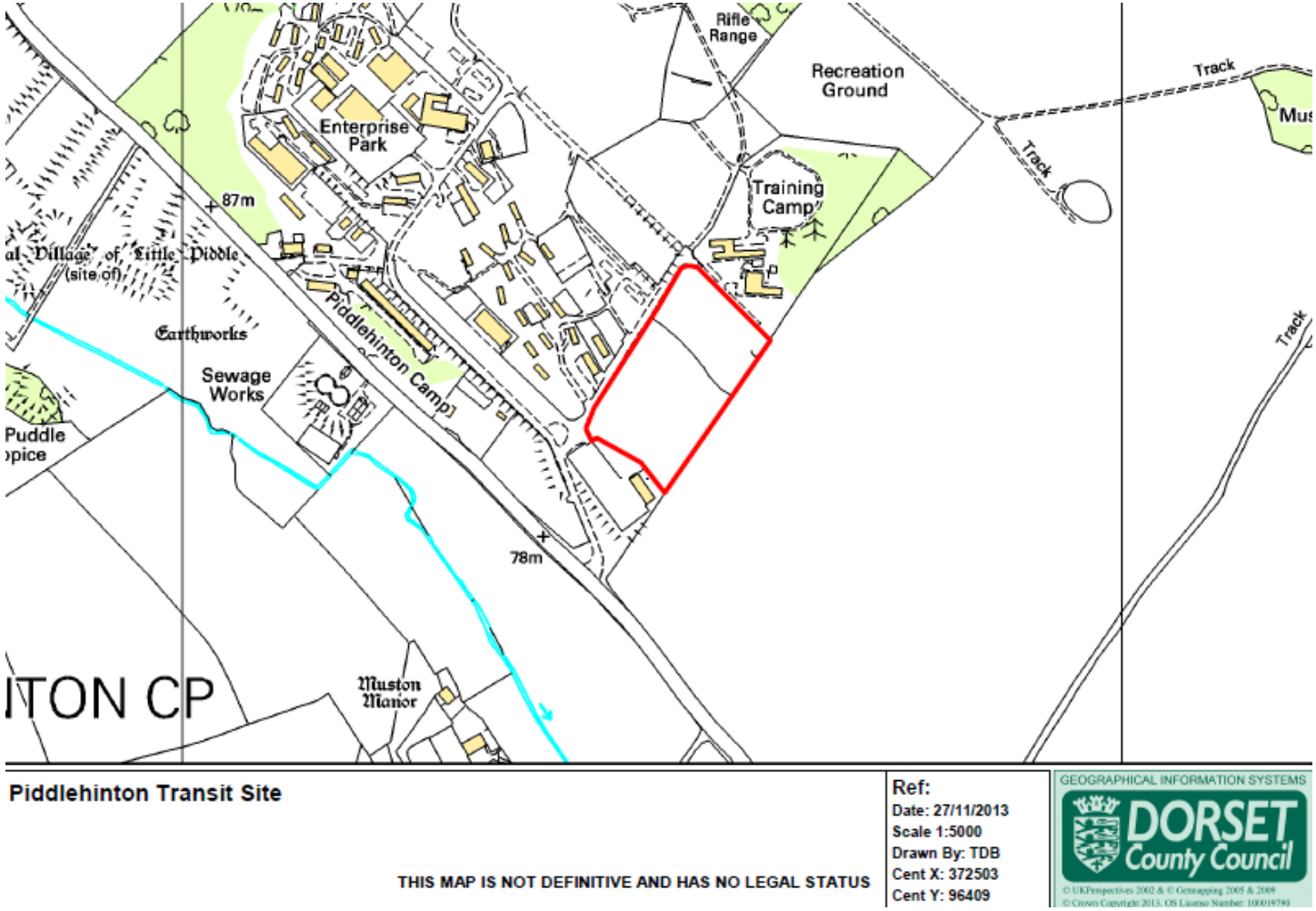
Froglife. (1999) *Reptile surveys: An introduction to planning, conducting and interpreting surveys for snake and lizard conservation*. *(Advice Sheet 10).*

Joint Nature Conservation Committee (2010). *Handbook for Phase I Habitat Survey*. JNCC.

Ministry of Housing, Communities and Local Government (2019). *National Planning Policy Framework.*

Oldham, R.S., Keeble, J., Swan, M.J.S. & Jeffcote, M. (2000). *Evaluating the suitability of habitat for the Great Crested Newt (Triturus cristatus).* Herpetological Journal 10 (4), 143-155.

APPENDIX I: Site location plan



APPENDIX II: Phase 1 habitat map

Target notes to accompany Phase 1 habitat map

Target Note	Description
1	Semi-improved grassland habitat comprising creeping bent (*Agrostis stolonifera*) (LF), barren brome (*Anisantha sterilis*) (LA), soft brome (*Bromus hordeaceus*) (LF/O), spring sedge (*Carex caryophyllea*) (LA/O), cock's-foot (*Dactylis glomerata*) (O), red fescue (*Festuca rubra*) (F), Yorkshire-fog (*Holcus lanatus*) (LF), perennial rye-grass (*Lolium perenne*) (O), annual meadow-grass (*Poa annua*) (LO), meadow-grass sp (*Poa* sp) (O), yarrow (*Achillea millefolium*) (A/LF), daisy (*Bellis perennis*) (F), wavy bittercress (*Cardamine flexuosa*) (LO), common mouse-ear (*Cerastium fontanum*) (O), common stork's-bill (*Erodium cicutarium*) (LO), cleaver (*Galium aparine*) (LO), cut-leaved crane's-bill (*Geranium dissectum*) (LO), dove's-foot crane's-bill (*Geranium molle*) (F), ground-ivy (*Glechoma hederacea*) (O), hogweed (*Heracleum sphondylium*) (LF/O), cat's-ear (*Hypochaeris radicata*) (O), rough hawkbit (*Leontodon hispidus*) (O/LF), common bird's-foot trefoil (*Lotus corniculatus*) (LA/F), field forget-me-knot (*Myosotis arvensis*) (O), mouse-ear-hawkweed (*Pilosella officinarum*) (LA/O), ribwort plantain (*Plantago lanceolata*) (LF), greater plantain (*Plantago major*) (LO), cowslip (*Primula veris*) (LA/F), creeping cinquefoil (*Potentiall reptans*) (LA/F), creeping buttercup (*Ranunculus repens*) (F), yellow-rattle (*Rhinanthus minor*) (LF/O), common sorrel (*Rumex acetosa*) (O), broad-leaved dock (*Rumex obtusifolius*) (LR), dandelion (*Taraxacum* agg) (LO), red clover (*Trifolium pratense*) (LF), white clover (*Trifolium repens*) (LF), germander speedwell (*Veronica chamaedrys*) (LA/F), field speedwell (*Veronica persica*) (LF) and common vetch (*Vicia sativa*) (O).
2	Scrub habitat comprising elder (*Sambucus nigra*) (F), and hawthorn (*Crataegus monogyna*) (F), common nettle (*Urtica dioica*) (F/LA), hogweed (F/LA) broad-leaved dock (LF/O) and creeping thistle (*Cirsium arvense*) (LF/O). Rubble was also noted beneath one area of scrub. A series of young cherry (*Prunus* sp) trees were also noted.
3	An area of hardstanding is present which was laid approximately 3 years previously, to infill a large depression. The hardstanding has since been colonised by species including ragwort (*Senecio jacobaea*) (LO), spear thistle (*Cirsium vulgare*) (LO), ribwort plantain (LF), barren brome (LF), butterfly bush (*Buddleja davdii*) (O), daisy (LO), hogweed (LF/O), creeping cinquefoil (O), common nettle (LO), creeping buttercup (LF) and cow parsley (*Anthriscus sylvestris*) (LO).
4	Fragmented woodland habitat with a canopy layer comprising horse chestnut (*Aesculus hippocastanum*) (O), sycamore (*Acer pseudoplatanus*) (O), hawthorn (O), beech (*Fagus sylvatica*) (O), pine (*Pinus* sp) (O), with an understory of blackthorn (*Prunus spinosa*) (LF), bramble (*Rubus fruticosus* agg) (LD/F), elder (LF) and ground flora of cow parsley (O), burdock (*Arctium* sp) (R), creeping thistle (O), willowherb sp (*Epilobium* sp) (O), cleavers (LF), hogweed (LF), Yorkshire-fog (LF), perforate St John's-wort (*Hypercium perforatum*) (O), cowslip (O), creeping buttercup (LO), broad-leaved dock (LF), red campion (*Silene dioica*) (O), dandelion (LF) and common nettle (LF).