

AN ECOLOGICAL SURVEY

of

LAND AT LEIGH FARM

[WMC06]

for

Dorset Council

October 2021

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SUMMARY

- This report forms part of a suite of ecological surveys commissioned by Dorset Council's Strategic Planning and Natural Environment Teams. Together the survey reports form part of the evidence base for the Local Plan, containing extended Phase 1 survey information for the potential allocated sites, highlighting important habitats and the likelihood of protected species being present.

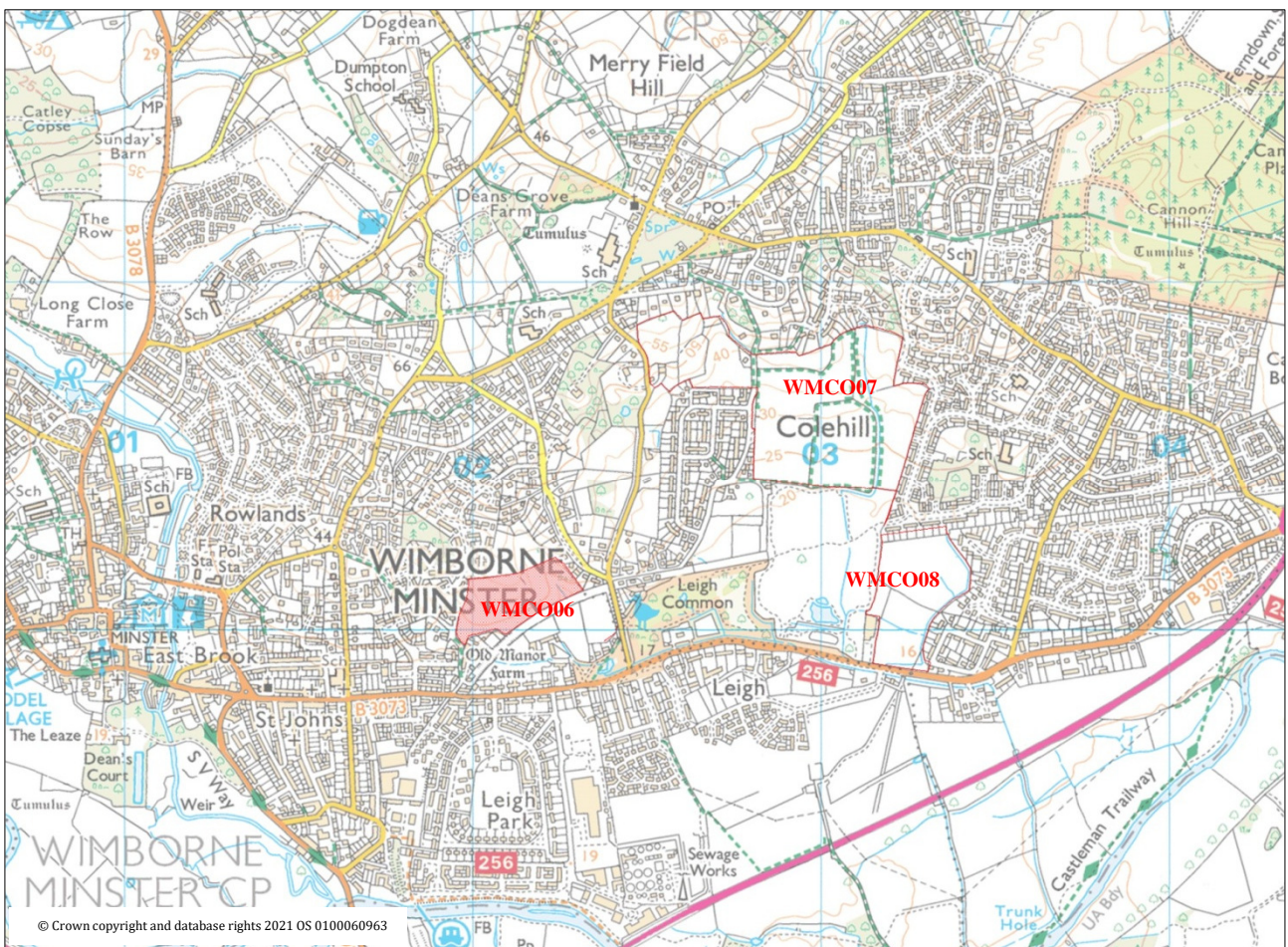
- The site has a diverse range of habitats with neutral, acid and marshy grassland and areas of scrub. Although the grassland is not particularly diverse there are few signs of past improvement. Seven Dorset Notable plant species were recorded, two of which are Red Listed as Near Threatened. These species are very localised and generally found in small quantity, except for Bird's-foot-trefoil which is frequent. The site is considered to be of **moderate** to **high ecological interest**.

- Those sites of **high ecological interest** are of SNCI quality and are therefore an important wildlife site within a county context. This site has not, as yet, been put forward as a potential SNCI.

1.0 INTRODUCTION

This report forms part of a suite of ecological surveys commissioned by Dorset Council's Strategic Planning and Natural Environment Teams. Together the survey reports form part of the evidence base for the Local Plan, containing extended Phase 1 survey information for the potential allocated sites, highlighting important habitats and the likelihood of protected species being present. The surveys have been carried out by Dorset Environmental Records Centre who are working with Dorset Council to ensure that ecological data for the Local Plan process is as up-to-date as possible.

MAP 1 Location of site



2.0 METHODS

The survey was undertaken on the 14th September 2021 in overcast weather. The area was walked and a plant species list compiled with frequencies assigned to each species using the DAFOR scale¹. Particular attention was paid to the presence of any Section 41 or Red Listed species, and any that are on the Dorset Environmental Records Centre (DERC) lists of Dorset Notable species (DERC, 2012). Habitats present were assessed for their potential to support protected species (see Section 6.1), and visible signs for Badger such as setts, latrines and paths were looked for. Each habitat type present and any species or features of particular note were described using target notes (see Section 5.2.2).

A habitat map was produced in the field by drawing boundaries of the different vegetation types over a print out of the latest aerial photograph. This was then digitized using DERCs Integrated Habitat System (IHS) mapping process.

The sites are assessed for their ecological interest at the time of the survey (see Section 6.0). Those sites assessed as being of **Low Ecological Interest** have very little interest and are generally improved grasslands or arable fields. Those of **Moderate Ecological Interest** may support some interest such as one or more Dorset Notable plant species, but do not qualify as a Site of Nature Conservation Interest (SNCI). Those of **High Ecological Interest** are of SNCI quality and are therefore an important wildlife site within a county context.

Nomenclature for plants follows Stace (2019).

¹ The DAFOR scale records species according their abundance as follows:

D = Dominant; **A** = Abundant; **F** = Frequent; **O** = Occasional; **R** = Rare; **L** = Local (e.g. **LF** = Locally Frequent)

3.0 LEGISLATION & POLICY

3.1 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.

This legal protection means that where development has the potential to impact on bats, or other species of national interest, 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 sites³ 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.

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 plant or cause their spread. Species listed under Schedule 9 that are most likely to be encountered are Japanese knotweed (*Fallopia japonica*) and giant hogweed (*Heracleum mantegazzianum*).

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 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 through a number of mechanisms. 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, sell or possess a live badger; mark or ring a badger. A licence is required for work affecting badgers and their setts.

- **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.

3.2 POLICY

The following policy is of relevance to this report:

- **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 (2018) includes sections on legally protected species and sites (see Section 2.1).

- **Local Sites (including Sites of Nature Conservation Interest (SNCI), Local Nature Reserves (LNR), and Biological Notification Sites (BNSs)/County Wildlife Sites (CWSs)):**

These are a network of sites designated for their nature conservation importance in a local context. Although they are not afforded legal protection they contribute towards local and national biodiversity.

- **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.

4.0 EXISTING DATA

The following summary is based on the desk study carried out by DERC for Dorset Council covering the Local Plan Emerging Site Allocations (DERC 2020). The species records are based on post-2010 data.

4.1 PROTECTED SPECIES

Species	Status	Distance from site	Date/s of record/s
Badger	WCA	Within 100m radius	
Bats	EPS; WCA	Within 100m radius	
Dormouse	S41; EPS; WCA	Within 1-km radius	2002
Otter	EPS; WCA	Within 1-km radius	
Water Vole	S41; WCA	Within 1-km radius	
Brown Hare	S41	-	
Hedgehog	S41	-	
Great Crested Newt	EPS; S41	Within 1-km radius	2016
Reptiles	S41; WCA	-	

4.2 PROTECTED HABITATS

Wet woodland – Section 41; UK Priority Habitat	155 metres to the east
Lowland Meadows – Section 41; UK Priority Habitat	272 metres to the north – northeast
Purple Moor-grass & Rush-pasture – Section 41; UK Priority Habitat	392 metres to the east

4.3 PROTECTED SITES

Dorset Heaths Special Area of Conservation	2.65 kilometres to the southwest
Corfe & Barrow Hills Site of Special Scientific Interest	2.65 kilometres to the southwest
Canford Heath Site of Special Scientific Interest	2.98 kilometres to the south
Ferndown Common Site of Special Scientific Interest	3.98 kilometres to the east

5.0 RESULTS

5.1 SITE DESCRIPTION

The site lies to the north of the disused railway line on the west side of Northleigh Lane. The field is undulating sloping up from the southwest corner, then sloping down to a valley at the eastern end where there is a winter-wet stream. The area overlies the London Clay and the Poole Formation giving rise to varied soils which are neutral to acid in character. The top of the slope is parched and dry, but lower down there are areas where drainage is impeded and it is dominated by rushes.

5.2 HABITAT DESCRIPTION

Grassland

The western part of the field is more neutral in character the swards dominated by Common Bent *Agrostis capillaris* and Red Fescue *Festuca rubra*, with more scattered Cock's-foot *Dactylis glomerata*, Yorkshire Fog *Holcus lanatus* and Sweet Vernal Grass *Anthoxanthum odoratum*. Herbs are not particularly diverse with Common Bird's-foot-trefoil *Lotus corniculatus*, Lesser Stitchwort *Stellaria graminea* and Common Sorrel *Rumex acetosa* all frequent to locally abundant, with smaller quantities of Common Cat's-ear *Hypochaeris radicata*, Common Knapweed *Centaurea nigra* and Yarrow *Achillea millefolium*. There are several patches of Creeping Thistle *Cirsium arvense*, and along the western edge of the field near the gate is a band of more enriched grassland with abundant Creeping Thistle, Cock's-foot and False Oat-grass *Arrhenatherum elatius*.

At the top of the field there is a stand of parched acid grassland dominated by Common Bent and Sheep's Sorrel *Rumex acetosella*, with scattered Red Fescue, Yorkshire Fog, Lesser Stitchwort and Common Bird's-foot-trefoil. There are a good number of ant-hills in this area. Where the field slopes down to a valley there are small areas of acid grassland, extra species noted here include Common Dog-violet *Viola riviniana*, Tormentil *Potentilla erecta*, Trailing Tormentil *Potentilla anglica*, Germander Speedwell *Veronica chamaedrys* and Heath Speedwell *Veronica officinalis*.

Marshy grassland

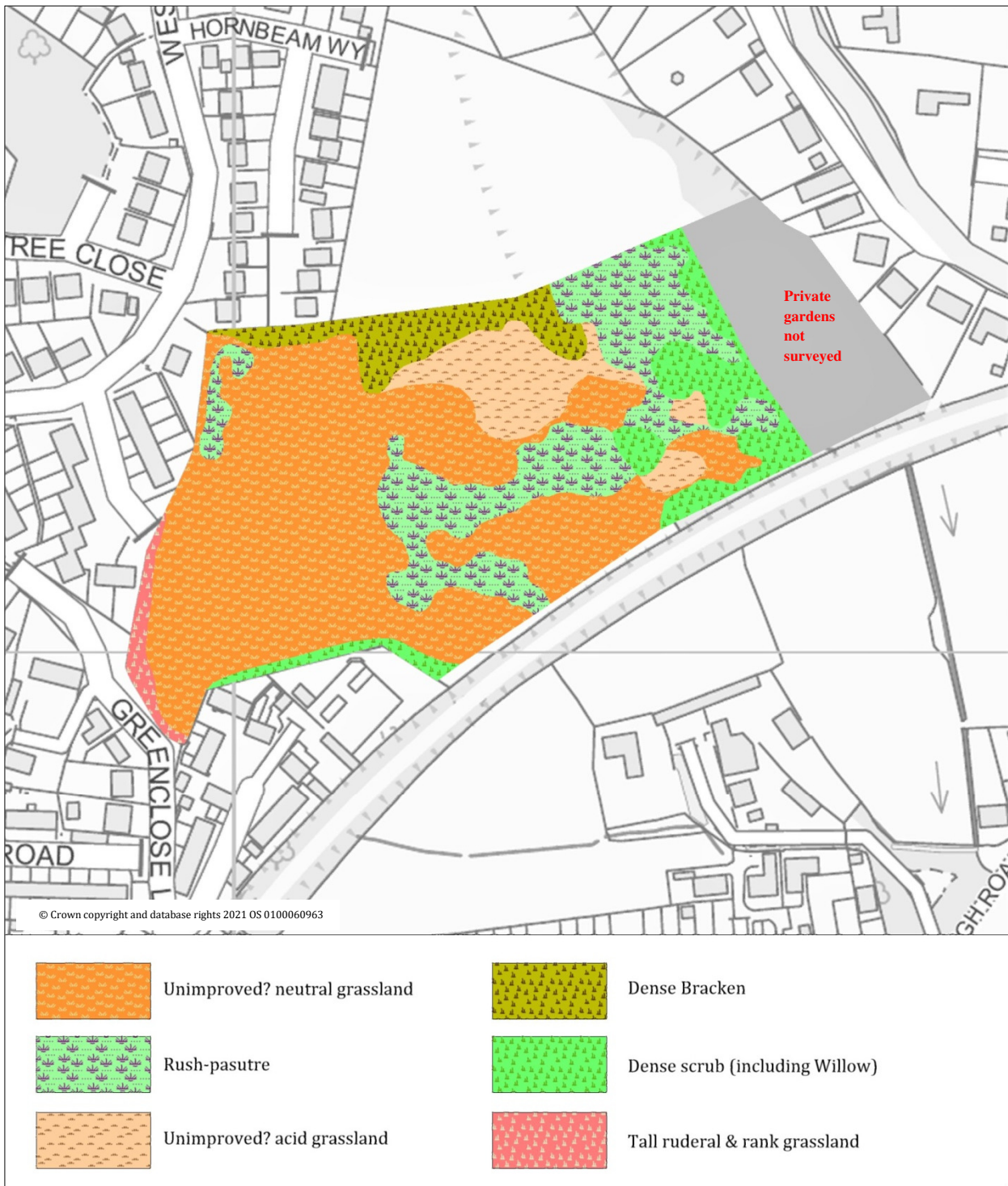
The damp areas are characterized by dense stands of Soft Rush *Juncus effusus*, and more grassy areas with patches of Sharp-flowered Rush *Juncus acutiflorus* and abundant Yorkshire Fog plus Creeping Bent *Agrostis stolonifera* and Red Fescue. Herbs are not that diverse with abundant Marsh Bird's-foot-trefoil *Lotus pedunculatus*, frequent Marsh Thistle *Cirsium palustre* and occasional Lesser Stitchwort. In the eastern part

of the field there is one area with stands of Water Mint *Mentha aquatica* and Common Fleabane *Pulicaria dysenterica*, and another area in the valley by the small stream at the eastern end with abundant Water Mint and Yellow Loosestrife *Lysimachia vulgaris* plus Marsh Thistle and Marsh Bedstraw *Galium palustre*.

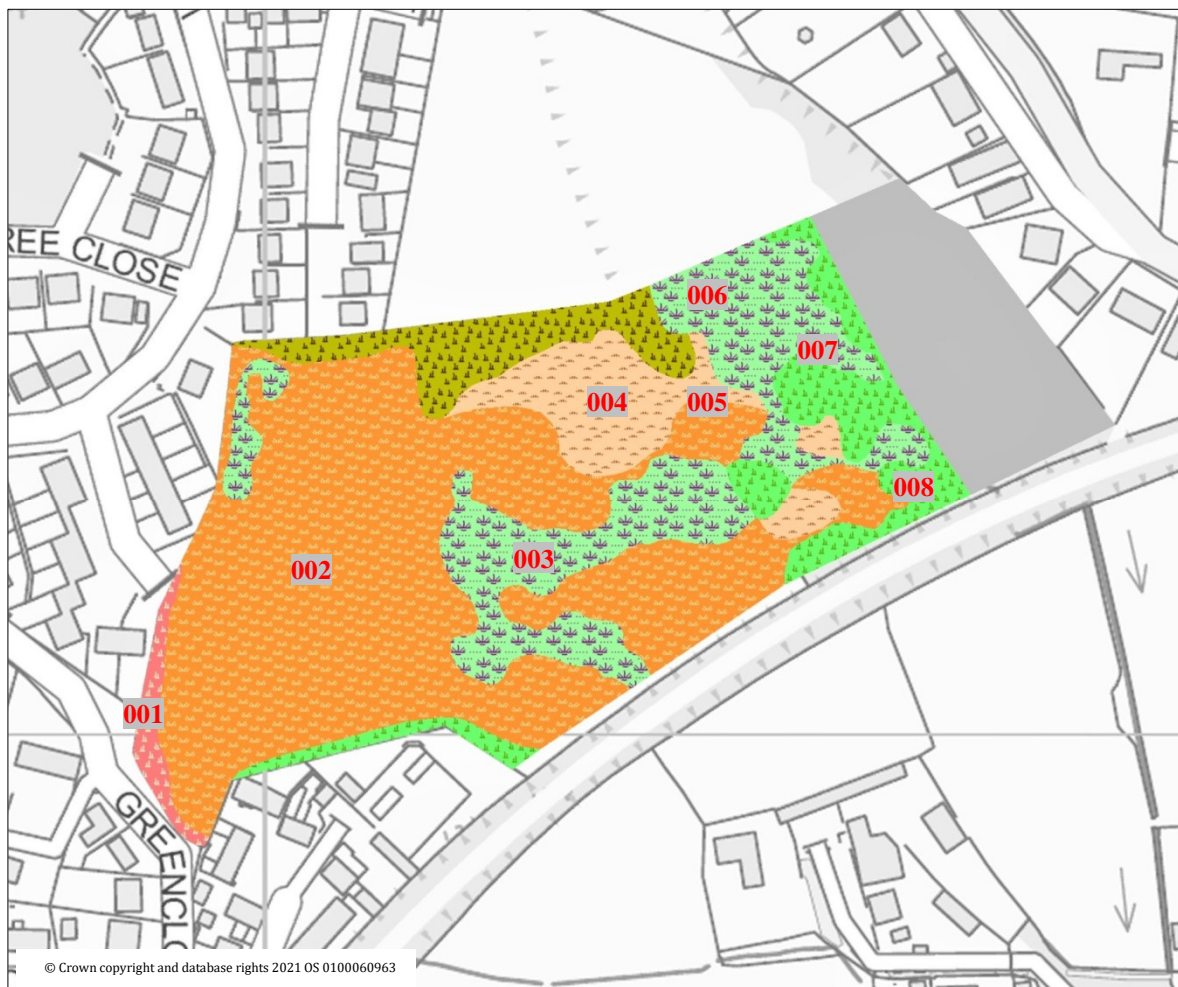
Scrub

Scrub is present in the eastern part of the site and scattered along the old railway line. Bramble *Rubus fruticosus* forms dense patches with scattered shrubs such as Hawthorn *Crataegus monogyna* and Holly *Ilex aquifolium*, plus several young Pedunculate Oak *Quercus robur* trees. In the east on damper ground there are several small stands of Grey Willow *Salix cinerea* with a sparse ground flora of Bramble, Creeping Buttercup *Ranunculus repens* and Rough Meadow-grass *Poa trivialis*, with Lady Fern *Athyrium filix-femina*, Broad Buckler-fern *Dryopteris dilatata*, Male Fern *Dryopteris filix-mas* and Enchanter's Nightshade *Circaea lutetiana*. Along the northern boundary there are two stands of dense Bracken *Pteridium aquifolium*.

5.2.1 Habitat map



5.2.2 Target notes



No.	Grid Ref	Target Note
001	SU0196 0000	Enriched area along western edge with abundant False Oat-grass, Cock's-foot and patches of Creeping Thistle.
002	SU0203 0006	Grassland typical of the more neutral soils. Common Bent and Red Fescue dominate the sward with scattered Yorkshire Fog and Cock's-foot. Herbs include frequent to abundant Bird's-foot-trefoil, Common Sorrel and Lesser Stitchwort, with small quantities of Common Knapweed, Common Cat's-ear and Yarrow.
003	SU0212 0007	Marshy area dominated by Soft Rush with abundant Yorkshire Fog and patchy Sharp-flowered Rush. Herbs are few apart from abundant Marsh Bird's-foot-trefoil and scattered Lesser Stitchwort, Marsh Thistle and Common Sorrel.

No.	Grid Ref	Target Note
004	SU0212 0012	Top of field with an area of parched acid grassland and scattered ant-hills. Common Bent and Sheep's Sorrel dominate with scattered Red Fescue, Yorkshire Fog, Lesser Stitchwort and Bird's-foot-trefoil.
005	SU0216 0013	Small bank with acid grassland and a more diverse flora including Common Dog-violet, Trailing Tormentil, Bird's-foot-trefoil, Germander Speedwell and Heath Speedwell.
006	SU0217 0015	Marshy area with scattered rushes and dense stands of Water Mint and Common Fleabane.
007	SU0222 0015	Tall marshy vegetation by shallow winter-wet stream / ditch with abundant Water Mint and Yellow Loosestrife, plus Marsh Thistle and Marsh Bedstraw.
008	SU0221 0007	Scrub with stands of Grey Willow with very sparse vegetation beneath including Bramble, Broad Buckler-fern, Lady Fern, Enchanter's Nightshade, Yorkshire Fog and Rough Meadow-grass.

6.0 ASSESSMENT

The field supports a diverse range of habitats including neutral grassland, acid grassland and marshy grassland with small stands of scrub. The flora includes 7 Dorset Notable plant species although only one of these, Bird's-foot-trefoil, is found in abundance. Two of the species, Tormentil and Heath Speedwell, are listed as Near Threatened on the England Red List (Stroh *et al*, 2014). Both are still relatively widespread in Dorset and are characteristic of old grasslands on acidic and nutrient-poor soils. Overall this site is currently of **moderate** to **high ecological interest** due to the variety of habitat present and the number of notable plant species present.

Summary of Dorset Notable plant species recorded

Species	Habitat	Frequency
<i>Centaurea nigra</i> Common Knapweed	Neutral grassland	R-O
<i>Lotus corniculatus</i> Bird's-foot-trefoil	Neutral and Acid Grassland	F-LA
<i>Lysimachia vulgaris</i> Yellow Loosestrife	Fen, fen-meadow & rush-pasture	R-LF
<i>Potentilla anglica</i> Trailing Tormentil	Neutral grassland	O-LF
<i>Potentilla erecta</i> Tormentil	Neutral and Acid Grassland	R
<i>Veronica officinalis</i> Heath Speedwell	Acid grassland	R
<i>Viola riviniana</i> Common Dog-violet	Acid grassland	R

6.1 PROTECTED SPECIES ASSESSMENT

Species	Status	Habitat Potential	Future surveys
Badger	WCA	No setts seen but a latrine found in the west of the field and there are numerous mammal paths across the site (although two Roe Deer were seen and signs of Fox also present).	
Bats	EPS; WCA	The edges of the scrub especially in the sheltered eastern valley provide good potential foraging habitat for bats.	Survey required
Dormouse	S41; EPS; WCA	The scrub habitat is sub-optimal for this species.	
Otter	EPS; WCA	Very little permanent water on site.	
Water Vole	S41; WCA	Very little permanent water on site.	

Species	Status	Habitat Potential	Future surveys
Brown Hare	S41		
Hedgehog	S41	Suitable habitat is present around the margins and in the scrub areas.	
Great Crested Newt	EPS; S41	Very little permanent water on site.	
Reptiles	S41; WCA	The marshy and wet areas have the potential to support Grass Snake.	

REFERENCES

DERC 2012 *Dorset Notable Species Lists*. Dorset Environmental Records Centre, Dorchester

DERC 2020 *Local Plan Emerging Site Allocations: Ecological Data*. [Unpublished report for Dorset Council]

Stace, C.A. 2019 *New Flora of the British Isles* (4th Ed). C & M Floristics, Suffolk.

Stroh, P.A., Leach, S.J., August, T.A., Walker, K.J., Pearman, D.A., Rumsey, F.J., Harrower, C.A., Fay, M.F., Martin, J.P., Pankhurst, T., Preston, C.D. & Taylor, I. 2014 *A Vascular Plant Red List for England*. Botanical Society of Britain and Ireland, Bristol.

APPENDIX I: Plant species recorded September 2021

Species	Common Name	Status	Frequency ¹
<i>Achillea millefolium</i>	Yarrow		R
<i>Agrostis capillaris</i>	Common Bent		A
<i>Agrostis stolonifera</i>	Creeping Bent		O
<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass		O
<i>Arrhenatherum elatius</i>	False Oat-grass		O-LA
<i>Athyrium filix-femina</i>	Lady Fern		R
<i>Brachypodium sylvaticum</i>	False Brome		R
<i>Carex hirta</i>	Hairy Sedge		O-LA
<i>Carex leporina</i>	Oval Sedge		R
<i>Carex nigra</i>	Common Sedge		R-LF
<i>Centaurea nigra</i>	Common Knapweed	DN-NG	R-O
<i>Circaea lutetiana</i>	Enchanter's Nightshade		R
<i>Cirsium arvense</i>	Creeping Thistle		O-LF
<i>Cirsium palustre</i>	Marsh Thistle		O-LA
<i>Corylus avellana</i>	Hazel		R
<i>Crataegus monogyna</i>	Hawthorn		R-O
<i>Dactylis glomerata</i>	Cock's-foot		F
<i>Dryopteris dilatata</i>	Broad Buckler-fern		R
<i>Dryopteris filix-mas</i>	Male Fern		R
<i>Equisetum arvense</i>	Field Horsetail		R
<i>Equisetum telmateia</i>	Great Horsetail		R
<i>Festuca rubra</i>	Red Fescue		F-LA
<i>Holcus lanatus</i>	Yorkshire-fog		A
<i>Hypochaeris radicata</i>	Common Cat's-ear		O
<i>Ilex aquifolium</i>	Holly		R
<i>Jacobaea vulgaris</i>	Ragwort		R
<i>Juncus acutiflorus</i>	Sharp-flowered Rush		O-LF
<i>Juncus effusus</i>	Soft Rush		O-LA
<i>Lotus corniculatus</i>	Common Bird's-foot-trefoil	DN-NG	F-LA
<i>Lotus pedunculatus</i>	Marsh Bird's-foot-trefoil		O-LA
<i>Lysimachia vulgaris</i>	Yellow Loosestrife	DN-F	R-LF
<i>Mentha aquatica</i>	Water Mint		R-LA
<i>Polystichum setiferum</i>	Soft Shield-fern		R
<i>Potentilla anglica</i>	Trailing Tormentil	DN-NG	O-LF
<i>Potentilla erecta</i>	Tormentil	NT; DN-AG	R
<i>Pteridium aquilinum</i>	Bracken		R-LA
<i>Pulicaria dysenterica</i>	Common Fleabane		R
<i>Quercus robur</i>	Pedunculate Oak		O
<i>Ranunculus acris</i>	Meadow Buttercup		R

Species	Common Name	Status	Frequency ¹
<i>Ranunculus repens</i>	Creeping Buttercup		O
<i>Rubus fruticosus</i> agg.	Bramble		O-LA
<i>Rosa canina</i>	Dog Rose		R
<i>Rumex acetosa</i>	Common Sorrel		F-LA
<i>Rumex acetosella</i>	Sheep's Sorrel		O-LA
<i>Rumex obtusifolius</i>	Broad-leaved Dock		R-O
<i>Rumex sanguineus</i>	Wood Dock		R
<i>Salix cinerea</i>	Grey Willow		O-LA
<i>Stellaria graminea</i>	Lesser Stitchwort		F
<i>Stellaria holostea</i>	Greater Stitchwort		R
<i>Trifolium pratense</i>	Red Clover		R
<i>Trifolium repens</i>	White Clover		O
<i>Veronica chamaedrys</i>	Germander Speedwell		O-LF
<i>Veronica officinalis</i>	Heath Speedwell	NT; DN-AG	R
<i>Viola riviniana</i>	Common Dog-violet	DN-AG	R

¹ **D** = Dominant; **A** = Abundant; **F** = Frequent; **O** = Occasional; **R** = Rare; **L** = Local (e.g. **LF** = Locally Frequent)

APPENDIX II: Photographs



FIG 01. SU0198 0000. General view looking east – northeast across the western part of the site.



FIG 02. SU0214 0012. Area of parched acid grassland (U1) with developing ant hills at top of field.



FIG 03 SU0217 0012. Area of acid grassland (U1) on bank with Heath Speedwell, Bird's-foot-trefoil and Heath Speedwell.



FIG 04. SU0217 0015. Wet area with stands of abundant Water Mint and Common Fleabane.



FIG 05. SU0222 0015. Wet area as eastern edge of site with large patch of Yellow Loosestrife plus Marsh Thistle, Marsh Bedstraw and Water Mint.