# Environmental Statement

## Appendix 8.2: Phase 1 Habitat Survey

## Land at Lower Berse Farm, Wrexham

On behalf of Redrow Homes Ltd

July 2024



THE ENVIRONMENT PARTNERSHIP



# RUTHIN ROAD

# WREXHAM

# HABITAT SURVEY TECHNICAL REPORT

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## APPENDICES

APPENDIX A: Hedgerows and Target Notes Report

## DRAWINGS

G8745.018 – Phase 1 Habitat Survey Map

# 1.0 Introduction

1.1 The Environment Partnership (TEP) Ltd was commissioned by Redrow Homes in January 2021 to carry out an updated habitat survey at the site known as Ruthin Road, Wrexham, hereafter referred to as 'the site'.

1.2 The site is located off Ruthin Road, to the west of Wrexham (Central Grid Reference: SJ 31500 49800). The Site consists of mainly arable farmland and improved grassland, bordered by native species rich, intact hedgerows. Within the site there are small pockets of dense semi-natural broad-leaved woodland, continuous scrub, and hardstanding/buildings. A wet ditch runs within the northern section and there is one pond within the site.

1.3 The site is bordered by the B5099 to the south, A525 (Ruthin Road) to the north and A483/Berse Lane to the west. Residential and commercial development extends to the north, east and south. Agricultural fields and woodland extend to the west.

1.4 This technical report has been commissioned to inform proposals for the construction of a new residential development for up to 1,520 units. It has the following objectives:

- To describe the existing vegetation and give an overview of the habitats present on site;
- To identify whether there are any features of conservation value such as habitats of biodiversity importance; and
- To identify and describe any evidence of protected or notable plant species and invasive non-native plant species within the site.

1.5 Figure 1 shows the location of the site in the wider landscape.

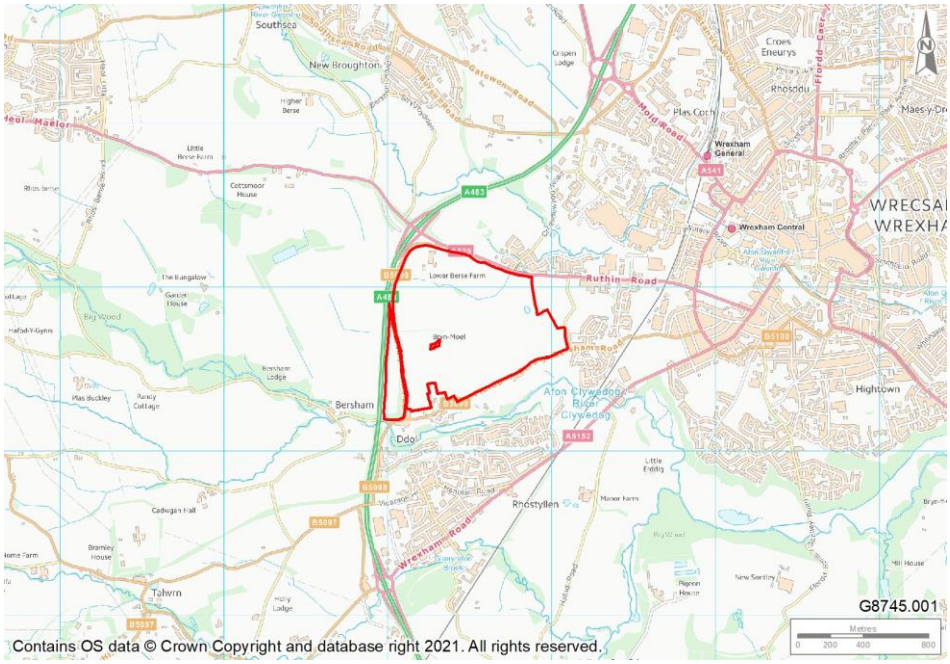



*Figure 1: Site Location Plan*

# 2.0 Methods

2.1 The habitat survey for the site included a Phase 1 habitat survey.

### Phase 1 Habitat Survey

2.2 The updated Phase 1 habitat survey of the site was carried out between the 12th and 14th April 2021 by TEP Senior Ecologist Clare Gower (ACIEEM, FISC Level 4). The survey was carried out in accordance with the standard methods set out in the Joint Nature Conservation Committee (JNCC) Handbook for Phase 1 Habitat Survey (2010)[1]. The survey method records the habitat types present in and immediately surrounding the site, based on the descriptions within the Phase 1 habitat assessment method. Plant species were identified in accordance with Stace[2] and recorded as target notes.

2.3 Previous target notes and habitat maps from the 2013 Phase 1 habitat survey were reviewed, updated and amended where required.

Limitations

2.4 The extended Phase 1 habitat survey was undertaken during the recommended seasonal window (April to October) and therefore no seasonal constraints to the survey was encountered.

2.5 Access was possible to all areas and therefore no limitations with respect to access were encountered.

[1] Joint Nature Conservation Committee, (2010), *Handbook for Phase 1 Habitat Survey: A technique for environmental audit*.
[2] Stace, C. (2010). *New Flora of the British Isles (3rd edn).* Cambridge University Press.

# 3.0 Results

3.1 The majority of the site is in agricultural use with a mix of arable and grazing fields, separated by an extensive network of hedges. At the time of the survey, the arable crops were too young to distinguish the species/crop types being produced. The grazing fields comprise a mix of improved and species-poor semi-improved grassland of varying quality and species abundance. There is a small area of amenity grassland (lawn) adjacent to the farm buildings in the northwest corner of the site. There is also a partially dry shallow ditch and a small area of marshy grassland running south towards the brook from the pond near the farm buildings (TN21).

3.2 A list of the habitats recorded on site are provided below. Summary descriptions for each habitat are given with further details of points of interest provided in Target Notes at Appendix A. The Phase 1 habitat plan is provided in Drawing G8745.018.

3.3 The following habitats are present within, or adjacent to the site:

- Improved grassland;
- Semi-improved grassland;
- Amenity grassland;
- Arable farmland;
- Tall ruderal vegetation;
- Hedgerows, including:
  - Native species-rich intact hedgerow;
  - Species-poor intact hedgerow;
  - Native species-rich defunct hedgerow;
  - Species-poor defunct hedgerow;
  - Native species-rich hedgerow and trees;
  - Species-poor hedgerow and trees;
- Green Lane / Bridlepath
- Dense/continuous and scattered scrub;
- Semi-natural broad-leaved woodland;
- Scattered Broad-leaved Trees;
- Standing water;
- Flowing wet ditch / brooks;
- Bare ground and hardstanding;
- Buildings and structures.

### Improved Grassland

3.4 There are several fields in the centre and west of the site of improved grassland (TN19) heavily dominated by perennial rye-grass *Lolium perenne* with occasional other species such as white clover *Trifolium repens*, chickweed *Stellaria media* and dandelion *Taraxacum officinale agg*. These fields are generally being used as either grazing or to grow fodder for livestock.



*Figure 2: Improved grassland in the southwest of the site across Berse Lane, as described in TN19*

## Semi-improved Grassland

3.5 There are fields of semi-improved grassland occurring in the northwest and centre of the site (TN20 and Figure 3) of varying quality and species abundance ranging from low species diversity in one large field to relatively species rich grasslands in each of the others. The most species rich semi-improved grasslands occur in the northwest corner of the site, and within four smaller fields in the centre of the site (Figure 4). Most of these fields are grazed, some more intensively and frequently than others, and are generally still dominated by perennial rye-grass. These fields are generally quite flat with some small undulations.

3.6 The larger fields in the northwest of the site (Figure 5) were being grazed by young cattle at the time of the survey, but there was still a good variety of species present including cuckooflower *Cardamine pratensis*, lesser celandine *Ficaria verna*, yarrow *Achillea millefolium* and red deadnettle *Lamium purpureum*. The four fields in the centre of the site have previously been grazed though were not currently being grazed at the time of the survey. They generally had a short to medium sward with some rough patches of taller vegetation and included some other frequent species such as field woodrush *Luzula campestris*, and occasional species such as ramsons *Allium ursinum* and upright hedge-parsley *Torilis japonica*.

3.7 The area classified as semi-improved grassland at TN22 (Figure 6) in the northwest corner of the site is a piece of derelict land between a large barn to the south and Berse Lane to the north. It contains lots of spoil and rubble heaps, storage of farm equipment and materials, and much of the area has become vegetated with a species rich composition but with no single dominant species across the area which included ground-ivy *Glechoma hederacea*, garlic mustard *Alliaria petiolata*, lords and ladies *Arum maculatum*, pendulous sedge *Carex pendula* and white dead-nettle *Lamium album*.



*Figure 3 Semi-improved neutral grassland described by TN20*



*Figure 4 Semi-improved grassland described by TN22 within four fields in the centre of the site*

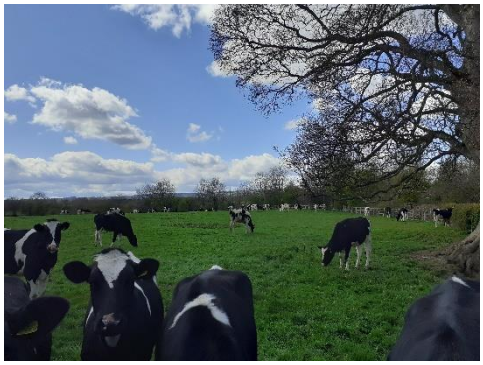


*Figure 5 Semi-improved grassland grazed by young cattle in the northwest of the site described by TN22*



*Figure 6 Undulating semi-improved grassland described by TN22 in the northwest corner of the site with spoil piles*

## Amenity Grassland

3.8 There is a small area of amenity grassland within the gardens surrounding the farmhouse in the northwest corner of the site.

## Arable Farmland

3.9 The majority of the larger fields along the north, east and south of the site are arable fields which at the time of the survey contained young, unidentifiable crops.



*Figure 7: Arable fields in the east of the site (TN18)*

## Tall Ruderal Vegetation

3.10 Tall ruderal vegetation occurs throughout the site, with five more extensive areas marked in the Phase 1 habitat map (drawing ref: G8745.018), and most are associated with ditches, field boundaries and habitat edges throughout the site. Patches of tall herb also occur within the fields. These areas commonly comprise a mix of nettles *Urtica dioica*, great willowherb *Epilobium hirsutum*, cow parsley *Anthriscus sylvestris*, hogweed *Heracleum sphondylium* and creeping thistle *Cirsium arvense* with rosebay willowherb *Chamerion angustifolium*, and occasional other species including yarrow *Achillea millefolium* and lesser burdock *Arctium minus*.

3.11 The most extensive continuous area of tall ruderal herb (TN1, Figures 8 and 9) is associated with the flowing ditch of TN2 which runs for approximately 835m across the northwest corner of the site, with one wider area of tall ruderal vegetation towards the eastern end of this ditch around a bend which is interspersed with scattered and patches of dense scrub. This vegetation includes nettle, creeping thistle, great willowherb, hogweed and in areas some marginal and aquatic species such as reeds *Phragmites australis* and greater reedmace *Typha latifolia*.

3.12 In the western field, across Berse Lane from the rest of the site, there are two main areas of tall ruderal vegetation: one is a slight ditch associated with a partially buried culverted water course running across the field (TN25); and one along the southern edge of a fenced off area of scrubby woodland in the north of the field (TN8).

3.13 The area at TN25 along the buried watercourse (Figure 10) comprises sloping ground either side of the culverted brook and contains species found in similar areas across the site such as cow parsley *Anthriscus sylvestris*, hogweed, nettle and curled dock *Rumex crispus*, but also contained species such as water figwort *Scrophularia auriculata* and dove's-foot cranesbill *Geranium molle*.

3.14 The tall ruderal at TN8 in front of the scrubby woodland (Figure 11) contains similar species to other areas across the wider site such as ragwort, creeping thistle, nettle, yarrow, rosebay willowherb and knapweed, but is interspersed with scattered young hawthorn *Crataegus monogyna* saplings.

3.15 The other larger areas of tall ruderal marked on the Phase 1 map include one area in the south of the site and this is associated with land to the rear of some private properties and another area in the northeast of the site associated with a hedgerow. They both contain similar species to those named above in other areas.



*Figure 8: Tall ruderal vegetation bordering a flowing ditch extending from TN1*



*Figure 9: Tall ruderal vegetation bordering the flowing ditch extending from TN1*



*Figure 10: Tall ruderal vegetation either side of the culverted brook running through the field at TN25*



*Figure 11: Tall ruderal vegetation along the edge of a scrubby woodland at TN 8*

## Hedgerows

3.16 The network of hedges is a notable feature of the site with 72 separate sections (counted from node to node) recorded, though for the purposes of assessment some were then paired up as they were a continuation of the same hedgerow, resulting in a total of 67 separate hedgerows being surveyed and recorded.

3.17 Species lists and photographs of each hedgerow are contained in Appendix A with reference to the hedgerows marked in drawing G8745.020 Important Hedgerows at the end of this document, and a full Hedgerow Assessment report (TEP Ref: 8745.08 has been produced with detailed assessments of all the hedgerows present on site.

3.18 Generally, the hedgerows surveyed were found to have a good mix of species. Hawthorn *Crataegus monogyna*, elder *Sambucus nigra*, holly *Ilex aquifolium*, hazel *Corylus avellana,* blackthorn *Prunus spinosa* and dog rose *Rosa canina* were the most frequently recorded woody species. Frequently recorded ground flora species include bluebell *Hyacinthoides non-scripta*, cleavers *Galium aparine*, nettle *Urtica dioica*, ivy *Hedera helix*, dog's mercury *Mercurialis perennis* and lord's and ladies' *Arum maculatum*.

3.19 There were also a number of hedgerows with mature standard trees, in particular English oak *Quercus robur*, many of these adjacent to the Public Right of Way (PROW) that bisects the site from west to east, starting at Berse Lane and terminating at Homestead Lane. Cross reference with the Arboricultural Impact Assessment indicates that while no registered veteran trees are present on the site, trees T24, T28 & T172 have veteran characteristics and should be considered as such.

3.20 Some hedgerows also had other features that contributed to their potential for importance such as being adjacent to the PROW, containing protected species within the ground flora such as native bluebell or growing on a bank.

A total of 41 hedgerows were assessed to be "important" under the Hedgerow Regulations (1997) in terms of the wildlife and landscape criteria. Eleven of these were assessed to be "important" due only to the presence of the protected plant species (Schedule 8, WCA) bluebell within the ground flora at the base of the hedges. All the other hedges were designated as "important" due to the average number of Schedule 3 woody species present within the sampled sections of the hedges in conjunction with the number of features associated with the hedges, as well as containing bluebell.

## Green Lane / Bridlepath

3.21 There is an old green lane (Figures 12 and 13) running through the centre of the site from west to east with raised hedgerows on banks on both sides with several mature trees throughout. This is an old throughway with several ancient woodland indicator species including enchanter's nightshade *Circaea lutetiana*, wood sorrel *Oxalis acetosella* (Figure 14), wood anemone *Anemone nemorosa*, herb-Robert *Geranium robertianum*, wood avens *Geum urbanum*, red campion *Silene dioica*, lesser celandine *Ficaria verna* (Figure 15), ramsons, lords-and-ladies and bluebell. There are also some different shrubs and scrub species not occurring in the rest of the site such as gooseberry *Ribes uva-crispa* and hairy broom *Cytisus striatus*.



*Figure 12: Green lane of TN13*



*Figure 13: Green lane at TN13*



*Figure 14: Wood sorrel in the green lane*



*Figure 15: Lesser celandine in the green lane*

## Dense and Scattered Scrub

3.22 A couple of areas of dense continuous scrub occur within the south of the site: one along a field boundary and one across a corner of the outer boundary of the site. These areas are dominated by hawthorn with abundant bramble *Rubus fruticosus agg*..

3.23 The area of dense scrub at TN7 (Figure 16), at the north end of the field in the west of the site, is dominated by hawthorn with willow Salix sp. as well as immature sycamore *Acer pseudoplatanus* and wych elm *Ulmus glabra* with a few scattered mature trees along the eastern side of this area.

3.24 There is an extended hollow in the northeast corner of a field at TN26 containing quite a bit of scattered scrub such as hawthorn and blackthorn bushes,



*Figure 16: Dense hawthorn scrub at TN7*

### Semi-natural Broad-leaved Woodland

3.25 There is a long, narrow area of broad-leaved woodland (TN 9), identified as ancient woodland on Magic, stretching right along the eastern and southern boundaries of an elongated field in the southwest corner of the site, to the west of Berse Lane. It has abundant sycamore with frequent ash *Fraxinus excelsior*. Other tree species present include silver birch *Betula pendula*, hawthorn, hazel, rowan *Sorbus aucuparia*, wych elm and yew *Taxus baccata*. There are a couple of Schedule 9 rhododendron *Rhododendron ponticum* shrubs within this woodland.

3.26 It is a mixed age woodland (Figure 17) with a good amount of dead wood and a varied understorey which includes several ancient woodland indicator species such as enchanter's nightshade, primrose *Primula vulgaris*, scaly male-fern *Dryopteris affinis ssp. Borreri*, dog's mercury, herb-Robert, wood avens, red campion, lesser celandine, ramsons, lords-and-ladies and bluebell. It supports a variety of fungi species including King Alfred's cakes *Daldinia concentrica*, and several species of waxcaps *Hygrocybes sp* and bracket fungi *Polypore sp*. There is an outgrown defunct hedge dominated by hawthorn along the border between the field and the woodland, with occasional bits of broken fencing. At the southern end of the woodland, beyond where the brook has cut through it, the woodland then slopes steeply down towards Bersham Road and the B5098. The woodland in the south of the field is younger (Figure 18) and more scrubby than other areas, with an abundance of hawthorn.

3.27 To the east of this woodland, in the south west of the main site, there is a long thin strip of semi-natural broad-leaved woodland (TN30, Figure 19) along the field edge with a public footpath running through it. It has a hawthorn hedge (H63) along its western edge at the field boundary. This woodland has abundant sycamore, hazel and hawthorn, with frequent blackthorn *Prunus spinosa*, rose species *Rosa sp*, elder and holly *Ilex aquifolium*.

3.28 There is a smaller block of woodland and willow scrub in the northwest section of the site (TN4, Figure 20) with ash, field maple, hawthorn, elder and alder Alnus glutinosa containing a sprawling wetland area created by flowing water being dammed within the woodland and then culverted to rejoin the brook.



*Figure 17: Mixed age woodland at TN9*



*Figure 18: Younger area of woodland at the south end of TN9*



*Figure 19: Woodland at TN30 with a public footpath running through it*



*Figure 20: Woodland and willow scrub at TN4 with a wetland area within it*

## Scattered Trees

3.29 There are several scattered trees within the site, mostly associated with the field boundaries, particularly around the field boundary south of the TN30 woodland in the southwest of the site. A few scattered mature trees in the northwest corner of the site, to the north of the farm buildings are considered to have the potential to accommodate roosting bats. The scattered mature trees across site are a mixture of species including willow species, English oak, ash, alder, wych elm, holly and sycamore.

### Standing Water

3.30 There is a small man-made pond (TN21, Figure 21) of very low water quality in the centre of a field near to the farm buildings, with no submergent vegetation and regularly used by waterfowl. It is understood this is linked to the farm buildings as an outfall pond for cattle slurry. A partially filled ditch runs north from the pond (Figure 22) through the field with some species associated with wet grassland such as soft rush *Juncus effusus*.

3.31 At TN5 there is an area that has previously been recorded as a dry ephemeral pool of which at the time of survey was just a dry bare patch in the corner of the field.



*Figure 21: Pond at TN21*



*Figure 22: Ditch running from the south of the TN21 pond*



*Figure 23: The previously recorded ephemeral pool at TN5 has now dried up*

### Flowing Wet Ditch / Brooks

3.32 TN2 is a flowing ditch/brook emerging from a concrete culvert under Berse Lane (Figure 24), flowing eastwards along field boundaries through the site before turning towards the north in the centre of the site. This watercourse has hedgerows on either one or two sides along most of its length through the site (Figures 25 and 26), some of these hedgerows occur on raised banks. This watercourse has a varied substrate base along its length ranging from a soil base in the west to a stone and silt base in the east and northern section where it contains large numbers of a tiny unidentified spire shelled freshwater snail in some areas.

3.33 Where the watercourse flows through the woodland at TN4, a sprawling wetland area has developed within the woodland (Figure 27) created by the flowing water being dammed within the woodland and then culverted to rejoin the brook on the eastern side of the woodland.

3.34 Another small brook (TN24) runs west to east through a partially collapsed culvert through a field (Figures 28 and 29) and then emerges from the culvert (Figure 30) running through the woodland at TN9 (Figure 31) before being culverted again to go under Berse Lane in a south-easterly direction, possibly towards the Afon Clywedog river to the south of the site.

3.35 This is a shallow brook with a base substrate made up of mud, silt and stone. The surrounding woodland has a similar species composition to that of TN9 with a few additional species along the banks of the brook such as pendulous sedge and water figwort.



*Figure 24: Concrete culvert where TN2 water emerges from under Berse Lane*



*Figure 25: TN2 brook running alongside a low-cut field boundary hedgerow*



*Figure 26: TN2 brook running alongside a field boundary hedgerow further east with tall ruderal along one bank and a hedgerow along the other*



*Figure 27: Area along the brook within the TN4 woodland where the water has been dammed and culverted causing the water to spread out within the woodland*



*Figure 28: TN24 brook running under field in a partially collapsed culvert of TN25*



*Figure 29: Collapsed culvert in field at TN25*



*Figure 30: Outfall of TN25 culvert into the woodland of TN9*



*Figure 31: Brook of TN24 running through the TN9 woodland*

## Bare Ground and Hardstanding

3.36 There are a few limited areas of bare ground dotted around the site, mostly associated with footpaths and tracks, gateways and access points into fields, and some small patches within fields where vegetation hasn't grown, but no significant areas.

3.37 The areas of hardstanding occur all around the farmyard, access road and buildings in the northwest of the site; the access road; and the area immediately surrounding the small substation at TN28.

## Buildings and Structures

3.38 Most of the larger buildings around the farmyard in the northwest of the site are large, corrugated metal storage and livestock barns. There is one long old multipurpose brick-built farm building (Figure 32) with a slate roof adjacent to the access road leading to the farmhouse, with a pitched slate roof. The farmhouse, a bit further down the access road is a large brick house with a pitched slate roof.

3.39 There is a small, corrugated metal field shelter at TN 27 (Figure 33), and at TN28 there is a single storey brick built sub-station with a flat roof which has been fenced off with a 10 foot chainmail fence (Figure 34). This building appears to be associated with a large mast within the same field and its stabilising anchor points and associated electrical conductor features (Figures 35, 36 and 37).

3.40 At TN23 there is a small brick building / animal field shelter with an open front and a flat ivy-covered roof (Figure 38). It has a concrete slab floor, some of which has fallen through (Figure 39).



*Figure 32: Old brick multipurpose farm building*



*Figure 33: Corrugated metal field shelter at TN27*



*Figure 34: Electricity sub-station at TN28*



*Figure 35: Large mast in the field near TN26*



*Figure 36: Stabilising anchor points for the large mast*



*Figure 37: Fenced off electrical conductor structure associated with the sub-station and mast*



*Figure 38: Small brick building with ivy covered roof at TN23*



*Figure 39: Inside of the small brick building at TN23*

## Non-native species

3.41 A stand of rhododendron, an invasive species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended), was recorded within the broadleaved woodland located to the west of Berse Lane (B5098) (TN 11).

3.42 There was a small amount of variegated yellow archangel *Lamiastrum galeobdolon* subsp. *argentatum* noted along the green lane at TN13, which is also an invasive species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended).

### Connectivity with the Wider Landscape

3.43 The site forms part of a wider area of agricultural, arable and pasture with hedgerow boundaries situated on the western edge of Wrexham. There is limited connectivity to the northeast and east of the site because of areas of housing, schools and hospitals within the conurbation of Wrexham. There is also limited connectivity for terrestrial species to the west of the site due to the presence of the busy A483, which may form a significant barrier to the movements of smaller species. To the south however, there is connectivity to agricultural land and the Afon (River) Clywedog which is south of the relatively quiet Bersham Road (B5099), and some limited connectivity northwards, to the west of the residential estate, to some parcels of similar agricultural land with hedgerows and trees, though this again is quite isolated by residential developments and the busy A483. For species that can overcome the potential barriers of busy highways, such as species which can fly like birds, bats and some invertebrates; larger mammals; and more mobile species, then there are extensive areas of similar habitats in the wider landscape to the west and north of the site.

3.44 It is unlikely that a high diversity of rare or specialist species would occupy the landscape in which the site is located.

# 4.0 Conclusions

4.1 The site currently contains a variety of habitats suitable for supporting a range flora and fauna (predominantly common and widespread species).

4.2 The majority of the site is made up of arable and improved grassland which is of low ecological value due to the lack of species and structural diversity.

4.3 The habitats of highest ecological value within the site are the hedgerows, semi-natural broad-leaved woodland, scattered trees, the green lane, brooks and semi-improved grassland habitats. These areas provide varied breeding, feeding and commuting habitats for a variety of wildlife with plant species providing nectar, pollen and seeds for invertebrates, birds and mammals.

4.4 Hedgerows are a significant feature of this site. All native hedgerows, including the hawthorn dominated species-poor hedgerows, qualify as S7 priority habitat. Many of the hedgerows around the site have also been classed as 'Important' under the Hedgerow Regulations 1997 and an S7 habitat of principal importance, due to them being species-rich with respect to woody species and supporting a range of physical features and a diverse groundflora which increases their nature conservation value. All hedgerows should be retained and managed wherever possible within any development plans.

4.5 The parcels of broadleaved woodland on site are of local conservation value; the Wrexham Biodiversity Action Plan (WBAP) includes woodland as a priority habitat, stating that only 2.6% of the original woodland area currently remains in Wrexham County Borough. The woodland at TN9 in the west of the site has been classed as ancient woodland with several mature and potential veteran trees, with many ancient woodland indicator species within the ground flora and also as S7 habitat of principal importance.

4.6 The green lane of TN13 also includes several ancient woodland indicator species, and with the raised parallel hedgerows bordering this throughway it will qualify as having some heritage status. Cross reference with the Arboricultural Impact Assessment indicates that while no registered veteran trees are present on the site trees T24, T28 & T172 have veteran characteristics and should be considered as such. Veteran trees are included within the WBAP veteran tree and wood-pasture action plan as being of great value for the saproxylic (dead bark) invertebrates and fungi that they can support.

4.7 The semi-natural broad-leaved woodlands at TN4 and TN30 do not qualify as S7 priority habitats. TN4 has a lack of diversity mostly consisting of overgrown willow scrub with a few other species making up the canopy and a lack of a diverse ground flora. It has been classified as semi-natural woodland due to the height and age of the canopy in places. However, the woodland has poor structural diversity and establishment of woodland ground-flora has been negligible. TN30 is a narrow strip of woodland with a limited diversity of species. Retention and improved management of the semi-natural broad-leaved woodlands would provide more niches for wildlife within the site and locality.

4.8 The two brooks within the site have a diverse range of species along their banks and provide foraging opportunities and a freshwater aquatic habitat for a range of faunal species.

4.9 Ponds can be classed as a S7 habitat of principal importance and are also included as a priority habitat within the WBAP. However, the pond within the site has poor water quality, being a slurry pond, with no associated aquatic vegetation and would not currently be of high enough ecological value to be classed as an S7 habitat or as WBAP habitat.

4.10 The extensive areas of semi-improved neutral grassland have moderate ecological value as there is a good diversity of species present.

4.11 Non-native, invasive rhododendron and variegated yellow archangel were noted within the site and are identified under Schedule 9 of the Wildlife and Countryside Act 1981. It is an offence to allow the growth or spreading in the wild of any plant identified under the order.

# References

**Legislation and Policy**

Natural Environment and Rural Communities Act (NERC) 2006 (c.16). London: HMSO.

Wildlife and Countryside Act 1981 (c.69). London: HMSO.

**Best Practice and Guidance**

Joint Nature Conservation Committee, (2003), Handbook for Phase 1 Habitat Survey: A technique for environmental audit.

Institute of Ecology and Environmental Management, (2017), Guidelines for Preliminary Ecological Appraisal. IEEM

# APPENDIX A: Hedgerows and Target Notes Report

# Target Notes Report

Land off Ruthin Road, Wrexham

## HEDGES

These hedgerow target notes generally only list the important species with regards to a hedgerow assessment. For full lists of species present please refer to document 8745.008 – Updated Hedgerow Assessment Technical Report.

### Target Note HEDGE 1

| | | |
|---|---|---|
| *Crataegus monogyna* | Hawthorn | D |
| *Rosa sp.* | Rose species | O |
| *Rubus fruticosus agg.* | Bramble | O |



### Target Note HEDGE 2

| | | |
|---|---|---|
| *Crataegus monogyna* | Hawthorn | D |
| *Rosa canina agg.* | Dog Rose | F |
| *Sambucus nigra* | Elder | F |
| *Corylus avellana* | Hazel | O |
| *Fraxinus excelsior* | Ash | O |



## Target Note HEDGE 3

| | | |
|---|---|---|
| *Crataegus monogyna* | Hawthorn | D |
| *Ilex aquifolium* | Holly | F |
| *Rosa sp.* | Rose species | F |
| *Fraxinus excelsior* | Ash | O |
| *Hedera helix* | Ivy | O |
| *Sambucus nigra* | Elder | O |
| *Corylus avellana* | Hazel | R |
| *Ulmus sp.* | Elm species | R |



## Target Note HEDGE 4

Parallel managed hedges on either side of a flowing brook (also see Hedge 5).

| | | |
|---|---|---|
| *Cirsium arvense* | Creeping Thistle | A |
| *Crataegus monogyna* | Hawthorn | A |
| *Rubus fruticosus agg.* | Bramble | A |
| *Sambucus nigra* | Elder | A |
| *Rosa sp.* | Rose species | F |
| *Acer pseudoplatanus* | Sycamore | O |
| *Calystegia sp.* | Bindweed species | O |
| *Fraxinus excelsior* | Ash | O |
| *Heracleum sphondylium* | Hogweed | O |
| *Salix species* | Willow species | R |



## Target Note HEDGE 5

Continuation of above hedges (Hedge 4) on the other side of a gap for a field entrance over the brook, with the brook between two parallel managed hedges.

| | | |
|---|---|---|
| *Crataegus monogyna* | Hawthorn | A |
| *Rosa sp.* | Rose species | F |
| *Rubus fruticosus agg.* | Bramble | F |
| *Fraxinus excelsior* | Ash | O |
| *Sambucus nigra* | Elder | O |



## Target Note HEDGE 6

A species poor defunct hedge

| | | |
|---|---|---|
| *Crataegus monogyna* | Hawthorn | D |



## Target Note HEDGE 7

Mature hedge on bank

| | | |
|---|---|---|
| *Crataegus monogyna* | Hawthorn | D |
| *Rosa canina agg.* | Dog Rose | A |
| *Dryopteris dilatata* | Broad Buckler-fern | O |
| *Hedera helix* | Ivy | O |
| *Hyacinthoides non-scripta* | Bluebell | O |
| *Ilex aquifolium* | Holly | O |
| *Prunus spinosa* | Blackthorn | O |
| *Quercus robur* | English Oak | O |
| *Sambucus nigra* | Elder | O |
| *Corylus avellana* | Hazel | R |
| *Malus sp.* | | R |



## Target Note HEDGE 8

Short section of species-poor hedge

| | | |
|---|---|---|
| *Crataegus monogyna* | Hawthorn | D |
| *Sambucus nigra* | Elder | O |
| *Hedera helix* | Ivy | O |
| *Rubus fruticosus agg.* | Bramble | O |



## Target Note HEDGE 9

Gaps with ruderal growth

| | | |
|---|---|---|
| *Urtica dioica* | Nettle | A |
| *Cirsium arvense* | Creeping Thistle | F |

| | | |
|---|---|---|
| *Crataegus monogyna* | Hawthorn | F |
| *Rosa canina agg.* | Dog Rose | F |
| *Rubus fruticosus agg.* | Bramble | F |
| *Fraxinus excelsior* | Ash | O |
| *Quercus robur* | English Oak | O |
| *Sambucus nigra* | Elder | O |
| *Acer campestre* | Field Maple | R |



## Target Note HEDGE 10

| | | |
|---|---|---|
| *Ilex aquifolium* | Holly | A |
| *Acer pseudoplatanus* | Sycamore | F |
| *Crataegus monogyna* | Hawthorn | F |
| *Prunus spinosa* | Blackthorn | F |
| *Rosa sp.* | Rose species | F |
| *Rubus fruticosus agg.* | Bramble | F |
| *Acer campestre* | Field Maple | O |
| *Arum maculatum* | Lords-and-Ladies | O |
| *Corylus avellana* | Hazel | O |
| *Fraxinus excelsior* | Ash | O |
| *Geum urbanum* | Wood avens | O |
| *Hedera helix* | Ivy | O |
| *Hyacinthoides non-scripta* | Bluebell | O |
| *Hyacinthoides x massartiana* | Hybrid Bluebell | O |
| *Mercurialis perennis* | Dog's Mercury | O |
| *Prunus spinosa* | Blackthorn | O |
| *Sambucus nigra* | Elder | O |
| *Ulmus glabra* | Wych Elm | O |
| *Prunus sp.* | Cherry species | R |



## Target Note HEDGE 11

| | | |
|---|---|---|
| *Crataegus monogyna* | Hawthorn | D |
| *Rosa canina agg.* | Dog Rose | F |
| *Alnus glutinosa* | Alder | O |
| *Corylus avellana* | Hazel | O |
| *Fraxinus excelsior* | Ash | O |
| *Hyacinthoides non-scripta* | Bluebell | O |
| *Ilex aquifolium* | Holly | O |
| *Salix caprea* | Goat Willow | O |
| *Sambucus nigra* | Elder | O |
| *Ulmus glabra* | Wych Elm | O |
| *Arum maculatum* | Lords-and-Ladies | O |



## Target Note HEDGE 12

| | | |
|---|---|---|
| *Crataegus monogyna* | Hawthorn | A |
| *Fraxinus excelsior* | Ash | F |
| *Ilex aquifolium* | Holly | F |
| *Rosa canina agg.* | Dog Rose | F |
| *Acer pseudoplatanus* | Sycamore | O |
| *Corylus avellana* | Hazel | O |
| *Hedera helix* | Ivy | O |
| *Hyacinthoides non-scripta* | Bluebell | F |
| *Prunus spinosa* | Blackthorn | O |
| *Arum maculatum* | Lords-and-Ladies | R |

| | | |
|---|---|---|
| *Sambucus nigra* | Elder | R |
| *Ulmus glabra* | Wych Elm | R |



## Target Note HEDGE 13

Adjacent to footpath

| | | |
|---|---|---|
| *Crataegus monogyna* | Hawthorn | D |
| *Ilex aquifolium* | Holly | A |
| *Rubus fruticosus agg.* | Bramble | F |
| *Acer pseudoplatanus* | Sycamore | O |
| *Corylus avellana* | Hazel | O |
| *Arum maculatum* | Lords-and-Ladies | O |
| *Ilex aquifolium* | Holly | O |
| *Dryopteris dilatata* | Broad Buckler-fern | O |
| *Fraxinus excelsior* | Ash | O |
| *Geum urbanum* | Wood avens | O |
| *Hyacinthoides non-scripta* | Bluebell | O |
| *Lamiastrum galeobdolon* | Yellow archangel | O |
| *Prunus spinosa* | Blackthorn | O |
| *Rosa canina agg.* | Dog Rose | O |
| *Sambucus nigra* | Elder | O |
| *Ulmus glabra* | Wych Elm | O |
| *Acer campestre* | Field Maple | R |



## Target Note HEDGE 14

| | | |
|---|---|---|
| *Ilex aquifolium* | Holly | A |
| *Acer pseudoplatanus* | Sycamore | F |

| | | |
|---|---|---|
| *Crataegus monogyna* | Hawthorn | F |
| *Fraxinus excelsior* | Ash | F |
| *Prunus spinosa* | Blackthorn | F |
| *Ulmus glabra* | Wych Elm | F |
| *Allium ursinum* | Ramsons | O |
| *Acer campestre* | Field Maple | O |
| *Arum maculatum* | Lords-and-Ladies | O |
| *Corylus avellana* | Hazel | O |
| *Crataegus monogyna* | Hawthorn | O |
| *Dryopteris dilatata* | Broad Buckler-fern | O |
| *Geum urbanum* | Wood avens | O |
| *Hyacinthoides non-scripta* | Bluebell | O |
| *Mercurialis perennis* | Dog's Mercury | O |
| *Quercus robur* | English Oak | O |
| *Rosa canina agg.* | Dog Rose | O |
| *Rubus fruticosus agg.* | Bramble | O |
| *Sambucus nigra* | Elder | O |



## Target Note HEDGE 15

| | | |
|---|---|---|
| *Prunus spinosa* | Blackthorn | D |
| *Crataegus monogyna* | Hawthorn | F |
| *Allium ursinum* | Ramsons | O |
| *Sambucus nigra* | Elder | F |
| *Acer pseudoplatanus* | Sycamore | O |
| *Corylus avellana* | Hazel | O |
| *Hedera helix* | Ivy | O |
| *Adoxa moschatellina* | Moschatel | O |
| *Arum maculatum* | Lords-and-Ladies | O |
| *Hyacinthoides non-scripta* | Bluebell | O |
| *Rosa canina agg.* | Dog Rose | O |
| *Sambucus nigra* | Elder | O |
| *Acer campestre* | Field Maple | R |
| *Ilex aquifolium* | Holly | R |
| *Salix cinerea* | Grey Willow | R |
| *Ulmus glabra* | Wych Elm | R |



## Target Note HEDGE 16

Hedge with a flowing ditch running along its northern side.

| | | |
|---|---|---|
| *Crataegus monogyna* | Hawthorn | A |
| *Corylus avellana* | Hazel | F |
| *Fraxinus excelsior* | Ash | F |
| *Ilex aquifolium* | Holly | F |
| *Prunus spinosa* | Blackthorn | F |
| *Rubus fruticosus agg.* | Bramble | F |
| *Acer campestre* | Field Maple | O |
| *Acer pseudoplatanus* | Sycamore | O |
| *Arum maculatum* | Lords-and-Ladies | O |
| *Hedera helix* | Ivy | O |
| *Hyacinthoides non-scripta* | Bluebell | O |
| *Prunus sp.* | Cherry species | O |
| *Quercus robur* | English Oak | O |
| *Geranium robertianum* | Herb-Robert | O |
| *Rosa sp.* | Rose species | O |





## Target Note HEDGE 17

| | | |
|---|---|---|
| *Crataegus monogyna* | Hawthorn | A |
| *Prunus spinosa* | Blackthorn | A |
| *Corylus avellana* | Hazel | F |
| *Fraxinus excelsior* | Ash | F |
| *Ilex aquifolium* | Holly | F |
| *Calystegia sp.* | Bindweed species | O |
| *Hedera helix* | Ivy | O |
| *Mercurialis perennis* | Dog's Mercury | O |
| *Rubus fruticosus agg.* | Bramble | O |
| *Sambucus nigra* | Elder | O |
| *Ulmus glabra* | Wych Elm | O |
| *Acer pseudoplatanus* | Sycamore | R |
| *Geum rivale* | Water Avens | R |
| *Geum urbanum* | Wood Avens | R |



## Target Note HEDGE 18

| | | |
|---|---|---|
| *Crataegus monogyna* | Hawthorn | D |
| *Prunus spinosa* | Blackthorn | A |
| *Corylus avellana* | Hazel | F |
| *Rosa sp.* | Rose species | F |

| | | |
|---|---|---|
| *Fraxinus excelsior* | Ash | O |
| *Ilex aquifolium* | Holly | O |
| *Rubus fruticosus agg.* | Bramble | O |
| *Abies grandis* | Grand Fir | R |
| *Acer pseudoplatanus* | Sycamore | R |
| *Arum maculatum* | Lords-and-Ladies | R |
| *Sambucus nigra* | Elder | R |
| *Ulmus glabra* | Wych Elm | R |



## Target Note HEDGE 19

| | | |
|---|---|---|
| *Crataegus monogyna* | Hawthorn | D |
| *Calystegia sp.* | Bindweed species | F |
| *Rubus fruticosus agg.* | Bramble | F |
| *Geum urbanum* | Wood avens | O |
| *Hedera helix* | Ivy | O |
| *Rosa sp.* | Rose species | O |
| *Corylus avellana* | Hazel | R |
| *Ulmus glabra* | Wych Elm | R |



## Target Note HEDGE 20

| | | |
|---|---|---|
| *Crataegus monogyna* | Hawthorn | D |

| | | |
|---|---|---|
| *Corylus avellana* | Hazel | F |
| *Ilex aquifolium* | Holly | F |
| *Prunus spinosa* | Blackthorn | F |
| *Pteridium aquilinum* | Bracken | F |
| *Sambucus nigra* | Elder | F |
| *Hedera helix* | Ivy | O |
| *Hyacinthoides non-scripta* | Bluebell | O |
| *Mercurialis perennis* | Dog's Mercury | O |
| *Rosa canina agg.* | Dog Rose | O |
| *Rubus fruticosus agg.* | Bramble | O |
| *Senecio jacobaea* | Ragwort | O |
| *Ulmus glabra* | Wych Elm | O |
| *Acer campestre* | Field Maple | R |
| *Arum maculatum* | Lords-and-Ladies | R |
| *Cornus sanguinea* | Dogwood | R |
| *Geum urbanum* | Wood avens | R |



## Target Note HEDGE 21

[redacted]

| | | |
|---|---|---|
| *Corylus avellana* | Hazel | A |
| *Crataegus monogyna* | Hawthorn | A |
| *Prunus spinosa* | Blackthorn | A |
| *Calystegia sp.* | Bindweed species | F |
| *Ilex aquifolium* | Holly | F |
| *Pteridium aquilinum* | Bracken | F |
| *Rosa sp.* | Rose species | F |
| *Sambucus nigra* | Elder | F |
| *Acer pseudoplatanus* | Sycamore | O |
| *Allium ursinum* | Ramsons | O |
| *Arum maculatum* | Lords-and-Ladies | O |
| *Fraxinus excelsior* | Ash | O |
| *Hedera helix* | Ivy | O |
| *Acer campestre* | Field Maple | R |
| *Geranium robertianum* | Herb-Robert | R |
| *Geum urbanum* | Wood avens | R |
| *Mercurialis perennis* | Dog's Mercury | R |
| *Ulmus glabra* | Wych Elm | R |



## Target Note HEDGE 22

| | | |
|---|---|---|
| *Corylus avellana* | Hazel | A |
| *Crataegus monogyna* | Hawthorn | A |
| *Prunus spinosa* | Blackthorn | A |
| *Ilex aquifolium* | Holly | F |
| *Sambucus nigra* | Elder | F |
| *Acer pseudoplatanus* | Sycamore | O |
| *Allium ursinum* | Ramsons | O |
| *Arum maculatum* | Lords-and-Ladies | O |
| *Fraxinus excelsior* | Ash | O |
| *Hyacinthoides non-scripta* | Bluebell | O |
| *Acer campestre* | Field Maple | R |
| *Geranium robertianum* | Herb-Robert | R |
| *Geum urbanum* | Wood avens | R |
| *Hedera helix* | Ivy | R |
| *Mercurialis perennis* | Dog's Mercury | R |



## Target Note HEDGE 23

[redacted] Some large mature trees along this hedge.

| | | |
|---|---|---|
| *Prunus spinosa* | Blackthorn | A |
| *Corylus avellana* | Hazel | F |

| | | |
|---|---|---|
| *Sambucus nigra* | Elder | F |
| *Acer campestre* | Field Maple | O |
| *Acer pseudoplatanus* | Sycamore | O |
| *Crataegus monogyna* | Hawthorn | O |
| *Hedera helix* | Ivy | O |
| *Rubus fruticosus agg.* | Bramble | O |
| *Ulmus glabra* | Wych Elm | O |



## Target Note HEDGE 24

| | | |
|---|---|---|
| *Prunus spinosa* | Blackthorn | A |
| *Acer campestre* | Field Maple | F |
| *Calystegia sp.* | Bindweed species | F |
| *Corylus avellana* | Hazel | F |
| *Crataegus monogyna* | Hawthorn | F |
| *Arum maculatum* | Lords-and-Ladies | O |
| *Geum urbanum* | Wood avens | O |
| *Hyacinthoides non-scripta* | Bluebell | O |
| *Ilex aquifolium* | Holly | O |
| *Mercurialis perennis* | Dog's Mercury | O |
| *Rosa canina agg.* | Dog Rose | O |
| *Sambucus nigra* | Elder | O |
| *Ulmus glabra* | Wych Elm | R |



## Target Note HEDGE 25

Defunct hedge

| | | |
|---|---|---|
| *Acer campestre* | Field Maple | O |
| *Crataegus monogyna* | Hawthorn | A |
| *Quercus robur* | English Oak | O |
| *Rosa canina agg.* | Dog Rose | O |
| *Sambucus nigra* | Elder | O |
| *Corylus avellana* | Hazel | F |
| *Arum maculatum* | Lords-and-Ladies | O |
| *Geum urbanum* | Wood avens | O |
| *Hyacinthoides non-scripta* | Bluebell | O |
| *Ilex aquifolium* | Holly | O |
| *Mercurialis perennis* | Dog's Mercury | O |
| *Rosa canina agg.* | Dog Rose | O |
| *Sambucus nigra* | Elder | O |
| *Ulmus glabra* | Wych Elm | R |



## Target Note HEDGE 26

Heavily managed

| | | |
|---|---|---|
| *Crataegus monogyna* | Hawthorn | F |
| *Ilex aquifolium* | Holly | F |
| *Acer campestre* | Field Maple | O |
| *Quercus robur* | English Oak | O |
| *Rosa sp.* | Rose species | O |
| *Sambucus nigra* | Elder | O |
| *Ulmus glabra* | Wych Elm | R |



## Target Note HEDGE 27

| | | |
|---|---|---|
| *Crataegus monogyna* | Hawthorn | A |
| *Prunus spinosa* | Blackthorn | F |
| *Sambucus nigra* | Elder | F |
| *Ulmus glabra* | Wych Elm | F |
| *Acer pseudoplatanus* | Sycamore | O |
| *Arum maculatum* | Lords-and-Ladies | O |
| *Corylus avellana* | Hazel | O |
| *Hedera helix* | Ivy | O |
| *Rosa sp.* | Rose species | O |
| *Salix caprea* | Goat Willow | O |
| *Fraxinus excelsior* | Ash | R |
| *Ilex aquifolium* | Holly | R |



## Target Note HEDGE 28

| | | |
|---|---|---|
| *Crataegus monogyna* | Hawthorn | A |
| *Rubus fruticosus agg.* | Bramble | F |
| *Sambucus nigra* | Elder | F |
| *Ilex aquifolium* | Holly | O |



## Target Note HEDGE 29

| | | |
|---|---|---|
| *Crataegus monogyna* | Hawthorn | D |
| *Rubus fruticosus agg.* | Bramble | F |
| *Acer pseudoplatanus* | Sycamore | O |
| *Corylus avellana* | Hazel | O |
| *Fraxinus excelsior* | Ash | O |
| *Ilex aquifolium* | Holly | O |
| *Ulmus glabra* | Wych Elm | O |
| *Rosa sp.* | Rose species | R |
| *Sambucus nigra* | Elder | O |



## Target Note HEDGE 30

| | | |
|---|---|---|
| *Crataegus monogyna* | Hawthorn | A |
| *Hedera helix* | Ivy | F |
| *Ulmus glabra* | Wych Elm | F |
| *Prunus spinosa* | Blackthorn | O |
| *Sambucus nigra* | Elder | O |
| *Acer pseudoplatanus* | Sycamore | R |
| *Fraxinus excelsior* | Ash | R |

| | | |
|---|---|---|
| *Rosa sp.* | Rose species | R |



## Target Note HEDGE 31

Heavily managed

| | | |
|---|---|---|
| *Crataegus monogyna* | Hawthorn | A |
| *Ulmus glabra* | Wych Elm | A |
| *Acer campestre* | Field Maple | O |
| *Acer pseudoplatanus* | Sycamore | O |
| *Arum maculatum* | Lords-and-Ladies | O |
| *Corylus avellana* | Hazel | O |
| *Fraxinus excelsior* | Ash | O |
| *Hedera helix* | Ivy | O |
| *Ilex aquifolium* | Holly | O |
| *Mercurialis perennis* | Dog's Mercury | O |
| *Rosa canina agg.* | Dog Rose | O |
| *Sambucus nigra* | Elder | O |
| *Tamus communis* | Black Bryony | R |



## Target Note HEDGE 32

Defunct

| | | |
|---|---|---|
| *Crataegus monogyna* | Hawthorn | A |

| | | |
|---|---|---|
| *Fraxinus excelsior* | Ash | F |
| *Rubus fruticosus agg.* | Bramble | F |
| *Hedera helix* | Ivy | O |



## Target Note HEDGE 33

Heavily managed

| | | |
|---|---|---|
| *Acer campestre* | Field Maple | A |
| *Crataegus monogyna* | Hawthorn | F |
| *Hedera helix* | Ivy | F |
| *Ulmus glabra* | Wych Elm | F |
| *Arum maculatum* | Lords-and-Ladies | O |
| *Corylus avellana* | Hazel | O |
| *Hyacinthoides non-scripta* | Bluebell | O |
| *Mercurialis perennis* | Dog's Mercury | O |
| *Prunus spinosa* | Blackthorn | O |
| *Rubus fruticosus agg.* | Bramble | O |
| *Bryonia dioica* | White Bryony | R |
| *Ilex aquifolium* | Holly | R |
| *Rosa canina.* | Dog Rose | R |
| *Sambucus nigra* | Elder | R |



## Target Note HEDGE 34

Mature, tall hedge

| | | |
|---|---|---|
| *Ilex aquifolium* | Holly | D |
| *Hedera helix* | Ivy | A |
| *Corylus avellana* | Hazel | F |
| *Crataegus monogyna* | Hawthorn | F |
| *Acer pseudoplatanus* | Sycamore | O |
| *Allium ursinum* | Ramsons | O |
| *Arum maculatum* | Lords-and-Ladies | O |
| *Fraxinus excelsior* | Ash | O |
| *Hyacinthoides non-scripta* | Bluebell | O |
| *Prunus spinosa* | Blackthorn | O |
| *Rosa sp.* | Rose species | O |
| *Sambucus nigra* | Elder | O |
| *Ulmus glabra* | Wych Elm | O |
| *Geranium robertianum* | Herb-Robert | R |
| *Geum urbanum* | Wood avens | R |
| *Mercurialis perennis* | Dog's Mercury | R |
| *Quercus robur* | English Oak | R |
| *Salix caprea* | Goat Willow | R |
| *Taxus baccata* | Yew | R |



## Target Note HEDGE 35

20m section

| | | |
|---|---|---|
| *Prunus spinosa* | Blackthorn | D |
| *Crataegus monogyna* | Hawthorn | F |
| *Rubus fruticosus agg.* | Bramble | O |



## Target Note HEDGE 36

Partly defunct

| | | |
|---|---|---|
| *Crataegus monogyna* | Hawthorn | A |
| *Rubus fruticosus agg.* | Bramble | A |
| *Fraxinus excelsior* | Ash | F |
| *Rosa sp.* | Rose species | O |
| *Quercus robur* | English Oak | R |



## Target Note HEDGE 37

More species diverse at the north end.

| | | |
|---|---|---|
| *Corylus avellana* | Hazel | A |
| *Crataegus monogyna* | Hawthorn | A |
| *Ilex aquifolium* | Holly | F |
| *Prunus spinosa* | Blackthorn | F |
| *Rubus fruticosus agg.* | Bramble | F |
| *Sambucus nigra* | Elder | F |
| *Hedera helix* | Ivy | O |
| *Hyacinthoides non-scripta* | Bluebell | O |
| *Quercus robur* | English Oak | O |
| *Rosa canina.* | Dog Rose | O |
| *Acer campestre* | Field Maple | R |
| *Ulmus glabra* | Wych Elm | R |



## Target Note HEDGE 38

Mature outgrown hedge with trees.

| | | |
|---|---|---|
| *Acer campestre* | Field Maple | F |
| *Corylus avellana* | Hazel | F |
| *Crataegus monogyna* | Hawthorn | F |
| *Fraxinus excelsior* | Ash | F |
| *Hedera helix* | Ivy | F |
| *Ilex aquifolium* | Holly | F |
| *Acer pseudoplatanus* | Sycamore | O |
| *Allium ursinum* | Ramsons | O |
| *Arum maculatum* | Lords-and-Ladies | O |
| *Geranium robertianum* | Herb-Robert | O |
| *Hyacinthoides non-scripta* | Bluebell | O |
| *Mercurialis perennis* | Dog's Mercury | O |
| *Prunus spinosa* | Blackthorn | O |
| *Quercus robur* | English Oak | O |
| *Rosa canina agg.* | Dog Rose | O |
| *Rubus fruticosus agg.* | Bramble | O |
| *Sambucus nigra* | Elder | O |
| *Schedonorus giganteus.* | Giant Fescue | O |
| *Ulmus glabra* | Wych Elm | O |
| *Taxus baccata* | Yew | R |



## Target Note HEDGE 39

| | | |
|---|---|---|
| *Acer campestre* | Field Maple | F |
| *Corylus avellana* | Hazel | F |
| *Crataegus monogyna* | Hawthorn | F |
| *Fraxinus excelsior* | Ash | F |

| | | |
|---|---|---|
| *Ilex aquifolium* | Holly | F |
| *Sambucus nigra* | Elder | F |
| *Acer pseudoplatanus* | Sycamore | O |
| *Hedera helix* | Ivy | O |
| *Hyacinthoides non-scripta* | Bluebell | O |
| *Mercurialis perennis* | Dog's Mercury | O |
| *Quercus robur* | English Oak | O |
| *Rosa sp.* | Rose species | O |
| *Rubus fruticosus agg.* | Bramble | O |
| *Arum maculatum* | Lords-and-Ladies | R |
| *Dryopteris dilatata* | Broad Buckler-fern | R |
| *Geum urbanum* | Wood avens | R |
| *Prunus avium* | Wild Cherry | R |
| *Ulmus glabra* | Wych Elm | R |



## Target Note HEDGE 40

| | | |
|---|---|---|
| *Crataegus monogyna* | Hawthorn | A |
| *Ilex aquifolium* | Holly | A |
| *Rubus fruticosus agg.* | Bramble | F |
| *Allium ursinum* | Ramsons | O |
| *Arum maculatum* | Lords-and-Ladies | O |
| *Fraxinus excelsior* | Ash | O |
| *Hedera helix* | Ivy | O |
| *Hyacinthoides non-scripta* | Bluebell | O |
| *Mercurialis perennis* | Dog's Mercury | O |
| *Quercus robur* | English Oak | O |
| *Rosa canina agg.* | Dog Rose | O |
| *Sambucus nigra* | Elder | O |



## Target Note HEDGE 41

Mature with trees. On a bank. [redacted]

| | | |
|---|---|---|
| *Crataegus monogyna* | Hawthorn | F |
| *Ilex aquifolium* | Holly | F |
| *Rosa canina agg.* | Dog Rose | F |
| *Rubus fruticosus agg.* | Bramble | F |
| *Sambucus nigra* | Elder | F |
| *Acer campestre* | Field Maple | O |
| *Corylus avellana* | Hazel | O |
| *Fraxinus excelsior* | Ash | O |
| *Hedera helix* | Ivy | O |
| *Hyacinthoides non-scripta* | Bluebell | O |
| *Prunus spinosa* | Blackthorn | O |
| *Quercus robur* | English Oak | O |
| *Ulmus glabra* | Wych Elm | O |



## Target Note HEDGE 42

[redacted]

| | | |
|---|---|---|
| *Corylus avellana* | Hazel | F |
| *Ilex aquifolium* | Holly | F |
| *Prunus spinosa* | Blackthorn | F |
| *Rubus fruticosus agg.* | Bramble | F |
| *Sambucus nigra* | Elder | F |

| | | |
|---|---|---|
| *Crataegus monogyna* | Hawthorn | O |
| *Hyacinthoides non-scripta* | Bluebell | O |
| *Pteridium aquilinum* | Bracken | O |
| *Quercus robur* | English Oak | O |
| *Rosa canina agg.* | Dog Rose | O |
| *Quercus rubra* | Red Oak | R |



## Target Note HEDGE 43

| | | |
|---|---|---|
| *Crataegus monogyna* | Hawthorn | D |
| *Acer pseudoplatanus* | Sycamore | O |
| *Hedera helix* | Ivy | O |
| *Rubus fruticosus agg.* | Bramble | O |
| *Rosa sp.* | Rose species | O |
| *Fraxinus excelsior* | Ash | R |



## Target Note HEDGE 44

| | | |
|---|---|---|
| *Crataegus monogyna* | Hawthorn | F |
| *Rubus fruticosus agg.* | Bramble | F |
| *Sambucus nigra* | Elder | F |
| *Fraxinus excelsior* | Ash | O |



## Target Note HEDGE 45

| | | |
|---|---|---|
| *Ilex aquifolium* | Holly | D |
| *Sambucus nigra* | Elder | F |
| *Allium ursinum* | Ramsons | O |
| *Arum maculatum* | Lords-and-Ladies | O |
| *Crataegus monogyna* | Hawthorn | O |
| *Hyacinthoides non-scripta* | Bluebell | O |
| *Quercus robur* | English Oak | O |
| *Mercurialis perennis* | Dog's Mercury | O |
| *Rosa canina agg.* | Dog Rose | O |
| *Rubus fruticosus agg.* | Bramble | O |
| *Acer pseudoplatanus* | Sycamore | R |
| *Geum urbanum* | Wood avens | R |
| *Ulmus glabra* | Wych Elm | R |



## Target Note HEDGE 46

| | | |
|---|---|---|
| *Ilex aquifolium* | Holly | A |
| *Corylus avellana* | Hazel | F |
| *Crataegus monogyna* | Hawthorn | F |
| *Rubus fruticosus agg.* | Bramble | F |
| *Sambucus nigra* | Elder | F |
| *Acer campestre* | Field Maple | O |
| *Hyacinthoides non-scripta* | Bluebell | O |
| *Prunus spinosa* | Blackthorn | O |
| *Rosa canina agg.* | Dog Rose | O |

| | | |
|---|---|---|
| *Fraxinus excelsior* | Ash | R |
| *Tamus communis* | Black Bryony | R |
| *Quercus robur* | English Oak | R |



## Target Note HEDGE 47

[redacted]

| | | |
|---|---|---|
| *Crataegus monogyna* | Hawthorn | A |
| *Pteridium aquilinum* | Bracken | A |
| *Fraxinus excelsior* | Ash | F |
| *Ilex aquifolium* | Holly | F |
| *Prunus spinosa* | Blackthorn | F |
| *Rubus fruticosus agg.* | Bramble | F |
| *Sambucus nigra* | Elder | F |
| *Acer campestre* | Field Maple | O |
| *Arum maculatum* | Lords-and-Ladies | O |
| *Corylus avellana* | Hazel | O |
| *Hyacinthoides non-scripta* | Bluebell | O |
| *Rosa canina* | Dog Rose | O |
| *Quercus robur* | English Oak | R |



## Target Note HEDGE 48

| | | |
|---|---|---|
| *Ilex aquifolium* | Holly | A |
| *Corylus avellana* | Hazel | F |
| *Hedera helix* | Ivy | F |

| | | |
|---|---|---|
| *Rosa canina* | Dog Rose | F |
| *Sambucus nigra* | Elder | F |
| *Allium ursinum* | Ramsons | O |
| *Crataegus monogyna* | Hawthorn | O |
| *Hyacinthoides non-scripta* | Bluebell | O |
| *Acer campestre* | Field Maple | R |
| *Acer pseudoplatanus* | Sycamore | R |
| *Fraxinus excelsior* | Ash | R |
| *Geum urbanum* | Wood avens | R |
| *Quercus robur* | English Oak | R |
| *Ulmus glabra* | Wych Elm | R |



## Target Note HEDGE 49

| | | |
|---|---|---|
| *Crataegus monogyna* | Hawthorn | A |
| *Ilex aquifolium* | Holly | A |
| *Prunus spinosa* | Blackthorn | A |
| *Rosa sp.* | Rose species | F |
| *Rubus fruticosus agg.* | Bramble | F |
| *Acer campestre* | Field Maple | O |
| *Corylus avellana* | Hazel | O |
| *Hyacinthoides non-scripta* | Bluebell | O |
| *Sambucus nigra* | Elder | O |



## Target Note HEDGE 50

| | | |
|---|---|---|
| *Crataegus monogyna* | Hawthorn | A |
| *Ilex aquifolium* | Holly | F |
| *Prunus spinosa* | Blackthorn | F |
| *Rubus fruticosus agg.* | Bramble | F |
| *Hedera helix* | Ivy | O |
| *Hyacinthoides non-scripta* | Bluebell | O |
| *Rosa sp.* | Rose species | O |
| *Acer pseudoplatanus* | Sycamore | R |
| *Fagus sylvatica* | Beech | R |
| *Sambucus nigra* | Elder | R |



## Target Note HEDGE 51

A defunct hedge with gaps.

| | | |
|---|---|---|
| *Ilex aquifolium* | Holly | A |
| *Crataegus monogyna* | Hawthorn | F |
| *Rubus fruticosus agg.* | Bramble | F |
| *Sambucus nigra* | Elder | O |
| *Acer campestre* | Field Maple | R |
| *Fraxinus excelsior* | Ash | R |
| *Hyacinthoides non-scripta* | Bluebell | R |
| *Prunus spinosa* | Blackthorn | R |



## Target Note HEDGE 52

| | | |
|---|---|---|
| *Pteridium aquilinum* | Bracken | A |
| *Crataegus monogyna* | Hawthorn | F |
| *Prunus spinosa* | Blackthorn | F |
| *Arum maculatum* | Lords-and-Ladies | O |

| | | |
|---|---|---|
| *Corylus avellana* | Hazel | O |
| *Hedera helix* | Ivy | O |
| *Hyacinthoides non-scripta* | Bluebell | O |
| *Rosa canina* | Dog Rose | O |
| *Sambucus nigra* | Elder | O |



## Target Note HEDGE 53

| | | |
|---|---|---|
| *Ilex aquifolium* | Holly | A |
| *Crataegus monogyna* | Hawthorn | F |
| *Rubus fruticosus agg.* | Bramble | F |
| *Acer pseudoplatanus* | Sycamore | O |
| *Arum maculatum* | Lords-and-Ladies | O |
| *Hyacinthoides non-scripta* | Bluebell | O |
| *Corylus avellana* | Hazel | O |
| *Mercurialis perennis* | Dog's Mercury | O |
| *Prunus spinosa* | Blackthorn | O |
| *Sambucus nigra* | Elder | O |
| *Rosa canina* | Dog Rose | O |
| *Fraxinus excelsior* | Ash | R |



## Target Note HEDGE 54

| | | |
|---|---|---|
| *Prunus spinosa* | Blackthorn | A |

| | | |
|---|---|---|
| *Crataegus monogyna* | Hawthorn | F |
| *Ilex aquifolium* | Holly | F |
| *Rosa canina* | Dog Rose | F |
| *Rubus fruticosus agg.* | Bramble | F |
| *Sambucus nigra* | Elder | F |
| *Acer campestre* | Field Maple | O |
| *Allium ursinum* | Ramsons | O |
| *Arum maculatum* | Lords-and-Ladies | O |
| *Fraxinus excelsior* | Ash | O |
| *Geum urbanum* | Wood avens | O |
| *Hyacinthoides non-scripta* | Bluebell | O |
| *Mercurialis perennis* | Dog's Mercury | O |
| *Quercus robur* | English Oak | O |
| *Ulmus glabra* | Wych Elm | O |



## Target Note HEDGE 55

| | | |
|---|---|---|
| *Ilex aquifolium* | Holly | D |
| *Acer pseudoplatanus* | Sycamore | A |
| *Acer campestre* | Field Maple | F |
| *Corylus avellana* | Hazel | F |
| *Crataegus monogyna* | Hawthorn | F |
| *Prunus spinosa* | Blackthorn | F |
| *Rubus fruticosus agg.* | Bramble | F |
| *Arum maculatum* | Lords-and-Ladies | O |
| *Geum urbanum* | Wood avens | O |
| *Hyacinthoides non-scripta* | Bluebell | O |
| *Mercurialis perennis* | Dog's Mercury | O |
| *Quercus robur* | English Oak | O |
| *Rosa canina agg.* | Dog Rose | O |
| *Sambucus nigra* | Elder | O |
| *Malus pumila* | Apple | R |



## Target Note HEDGE 56

| | | |
|---|---|---|
| *Acer campestre* | Field Maple | F |
| *Corylus avellana* | Hazel | F |
| *Crataegus monogyna* | Hawthorn | F |
| *Prunus sp.* | Cherry species | F |
| *Prunus spinosa* | Blackthorn | F |
| *Acer pseudoplatanus* | Sycamore | O |
| *Arum maculatum* | Lords-and-Ladies | O |
| *Fraxinus excelsior* | Ash | O |
| *Geum urbanum* | Wood avens | O |
| *Hedera helix* | Ivy | O |
| *Hyacinthoides non-scripta* | Bluebell | O |
| *Mercurialis perennis* | Dog's Mercury | O |
| *Rosa canina* | Dog Rose | O |
| *Sambucus nigra* | Elder | O |
| *Ilex aquifolium* | Holly | R |
| *Prunus avium* | Wild Cherry | R |



## Target Note HEDGE 57

Recently cut hedgerow.

| | | |
|---|---|---|
| *Crataegus monogyna* | Hawthorn | A |
| *Corylus avellana* | Hazel | F |
| *Hedera helix* | Ivy | F |
| *Ilex aquifolium* | Holly | F |

| | | |
|---|---|---|
| *Prunus spinosa* | Blackthorn | F |
| *Acer campestre* | Field Maple | O |
| *Hyacinthoides non-scripta* | Bluebell | O |
| *Mercurialis perennis* | Dog's Mercury | O |
| *Quercus robur* | English Oak | O |
| *Rosa canina agg.* | Dog Rose | O |
| *Fraxinus excelsior* | Ash | O |
| *Sambucus nigra* | Elder | O |
| *Ulmus glabra* | Wych Elm | O |



## Target Note HEDGE 58

| | | |
|---|---|---|
| *Crataegus monogyna* | Hawthorn | D |
| *Hedera helix* | Ivy | F |
| *Acer pseudoplatanus* | Sycamore | O |
| *Rubus fruticosus agg.* | Bramble | O |



## Target Note HEDGE 59

| | | |
|---|---|---|
| *Crataegus monogyna* | Hawthorn | D |
| *Hedera helix* | Ivy | F |
| *Ulmus glabra* | Wych Elm | O |
| *Acer pseudoplatanus* | Sycamore | R |



## Target Note HEDGE 60

| | | |
|---|---|---|
| *Crataegus monogyna* | Hawthorn | F |
| *Rubus fruticosus agg.* | Bramble | F |
| *Acer pseudoplatanus* | Sycamore | O |
| *Hedera helix* | Ivy | O |
| *Mercurialis perennis* | Dog's Mercury | O |
| *Prunus spinosa* | Blackthorn | O |
| *Quercus robur* | English Oak | O |
| *Rosa canina agg.* | Dog Rose | O |
| *Sambucus nigra* | Elder | O |
| *Betula pendula* | Silver Birch | R |



## Target Note HEDGE 61

| | | |
|---|---|---|
| *Acer pseudoplatanus* | Sycamore | F |
| *Corylus avellana* | Hazel | F |
| *Crataegus monogyna* | Hawthorn | F |
| *Hedera helix* | Ivy | O |
| *Ilex aquifolium* | Holly | O |



## Target Note HEDGE 62

| | | |
|---|---|---|
| *Ilex aquifolium* | Holly | A |
| *Acer pseudoplatanus* | Sycamore | F |
| *Crataegus monogyna* | Hawthorn | F |
| *Arum maculatum* | Lords-and-Ladies | O |
| *Geum urbanum* | Wood avens | O |
| *Prunus spinosa* | Blackthorn | O |
| *Sambucus nigra* | Elder | O |



## Target Note HEDGE 63

| | | |
|---|---|---|
| *Acer pseudoplatanus* | Sycamore | A |
| *Corylus avellana* | Hazel | A |
| *Crataegus monogyna* | Hawthorn | A |
| *Prunus spinosa* | Blackthorn | A |
| *Rosa sp.* | Rose species | F |
| *Rubus fruticosus agg.* | Bramble | F |
| *Sambucus nigra* | Elder | F |
| *Arum maculatum* | Lords-and-Ladies | O |
| *Hyacinthoides non-scripta* | Bluebell | O |
| *Ilex aquifolium* | Holly | O |
| *Mercurialis perennis* | Dog's Mercury | O |
| *Quercus robur* | English Oak | O |



## Target Note HEDGE 64

The southern end of this hedge near the buildings is predominantly a beech hedge but diversifies along the roadside as it gets further north.

| | | |
|---|---|---|
| *Corylus avellana* | Hazel | A |
| *Fagus sylvatica* | Beech | A |
| *Acer pseudoplatanus* | Sycamore | F |
| *Hedera helix* | Ivy | F |
| *Ilex aquifolium* | Holly | F |
| *Rosa sp.* | Rose species | F |
| *Sambucus nigra* | Elder | F |
| *Ulmus glabra* | Wych Elm | F |
| *Acer campestre* | Field Maple | O |
| *Crataegus monogyna* | Hawthorn | O |
| *Hyacinthoides non-scripta* | Bluebell | O |
| *Mercurialis perennis* | Dog's Mercury | O |
| *Rosa canina agg.* | Dog Rose | O |
| *Rubus fruticosus agg.* | Bramble | O |
| *Prunus spinosa* | Blackthorn | R |



## Target Note HEDGE 65

For the purposes of analysis this hedgerow has been combined with Hedge 63 as the same feature.

| | | |
|---|---|---|
| *Crataegus monogyna* | Hawthorn | O |
| *Ilex aquifolium* | Holly | O |
| Cameraria ohridella | Horse Chestnut | R |



## Target Note HEDGE 66

| | | |
|---|---|---|
| *Ilex aquifolium* | Holly | A |
| *Corylus avellana* | Hazel | F |
| *Crataegus monogyna* | Hawthorn | F |
| *Arum maculatum* | Lords-and-Ladies | O |
| *Geum urbanum* | Wood avens | O |
| *Hyacinthoides non-scripta* | Bluebell | O |
| *Mercurialis perennis* | Dog's Mercury | O |
| *Quercus robur* | English Oak | O |
| *Prunus spinosa* | Blackthorn | O |
| *Rosa canina agg.* | Dog Rose | O |
| *Rubus fruticosus agg.* | Bramble | O |
| *Sambucus nigra* | Elder | O |
| *Ulmus glabra* | Wych Elm | O |
| *Acer pseudoplatanus* | Sycamore | R |
| *Fraxinus excelsior* | Ash | R |
| *Malus sylvestris* | Crab Apple | R |



## Target Note HEDGE 67

| | | |
|---|---|---|
| *Prunus spinosa* | Blackthorn | A |
| *Acer pseudoplatanus* | Sycamore | F |
| *Corylus avellana* | Hazel | F |
| *Ilex aquifolium* | Holly | F |
| *Quercus robur* | English Oak | F |
| *Sambucus nigra* | Elder | F |
| *Acer campestre* | Field Maple | O |
| *Arum maculatum* | Lords-and-Ladies | O |
| *Cornus sanguinea* | Dogwood | O |
| *Crataegus monogyna* | Hawthorn | O |
| *Fraxinus excelsior* | Ash | O |
| *Geum urbanum* | Wood avens | O |
| *Hedera helix* | Ivy | O |
| *Hyacinthoides non-scripta* | Bluebell | O |
| *Lamiastrum galeobdolon* | Yellow archangel | O |
| *Mercurialis perennis* | Dog's Mercury | O |
| *Oxalis acetosella* | Wood sorrel | O |
| *Rosa canina agg.* | Dog Rose | O |
| *Ulmus glabra* | Wych Elm | R |



## Target Note HEDGE 68

| | | |
|---|---|---|
| *Corylus avellana* | Hazel | A |
| *Crataegus monogyna* | Hawthorn | F |
| *Prunus spinosa* | Blackthorn | F |
| *Acer campestre* | Field Maple | O |
| *Acer pseudoplatanus* | Sycamore | O |
| *Hyacinthoides non-scripta* | Bluebell | O |
| *Ilex aquifolium* | Holly | O |
| *Mercurialis perennis* | Dog's Mercury | O |
| *Quercus robur* | English Oak | O |
| *Rosa canina agg.* | Dog Rose | O |
| *Rubus fruticosus agg.* | Bramble | O |
| *Sambucus nigra* | Elder | O |
| *Ulmus glabra* | Wych Elm | O |



## Target Note HEDGE 69

| | | |
|---|---|---|
| *Crataegus monogyna* | Hawthorn | A |
| *Corylus avellana* | Hazel | F |
| *Hedera helix* | Ivy | F |
| *Ilex aquifolium* | Holly | F |
| *Rosa canina agg.* | Dog Rose | F |
| *Acer campestre* | Field Maple | O |
| *Acer pseudoplatanus* | Sycamore | O |
| *Allium ursinum* | Ramsons | O |
| *Fraxinus excelsior* | Ash | O |
| *Geum urbanum* | Wood avens | O |
| *Hyacinthoides non-scripta* | Bluebell | O |
| *Mercurialis perennis* | Dog's Mercury | O |
| *Primula vulgaris* | Primrose | O |
| *Sambucus nigra* | Elder | O |
| *Ulmus glabra* | Wych Elm | O |



## Target Note HEDGE 70

Boundary hedge between north side of bridlepath / green lane and arable field.  It has a parallel hedge along

the green lane.

| | | |
|---|---|---|
| *Crataegus monogyna* | Hawthorn | D |
| *Acer campestre* | Field Maple | O |
| *Allium ursinum* | Ramsons | O |
| *Corylus avellana* | Hazel | O |
| *Galium aparine* | Cleavers | O |
| *Glechoma hederacea* | Ground-ivy | O |
| *Hedera helix* | Ivy | O |
| *Hyacinthoides non-scripta* | Bluebell | O |
| *Ilex aquifolium* | Holly | O |
| *Mercurialis perennis* | Dog's Mercury | O |
| *Ulmus glabra* | Wych Elm | R |

**Target Note HEDGE 71**

A boundary hedge between an arable field and an access road into the site. There is a parallel hedge on the other site of the road.

| | | |
|---|---|---|
| *Crataegus monogyna* | Hawthorn | D |
| *Acer campestre* | Field Maple | O |
| *Acer pseudoplatanus* | Sycamore | O |
| *Alliaria petiolata* | Garlic Mustard | O |
| *Anthriscus sylvestris* | Cow Parsley | O |
| *Corylus avellana* | Hazel | O |
| *Dryopteris filix-mas* | Male-fern | O |
| *Galium aparine* | Cleavers | O |
| *Hyacinthoides non-scripta* | Bluebell | O |
| *Ilex aquifolium* | Holly | O |
| *Lonicera periclymenum* | Honeysuckle | O |
| *Mercurialis perennis* | Dog's Mercury | O |
| *Prunus spinosa* | Blackthorn | O |
| *Rosa canina agg.* | Dog Rose | O |
| *Rubus fruticosus agg.* | Bramble | O |
| *Sambucus nigra* | Elder | O |
| *Vicia sepium* | Bush Vetch | O |



**Target Note HEDGE 72**

A boundary hedge between an arable field and the road.

| | | |
|---|---|---|
| *Crataegus monogyna* | Hawthorn | A |
| *Acer campestre* | Field Maple | O |
| *Acer pseudoplatanus* | Sycamore | O |
| *Calystegia sp.* | Bindweed species | O |
| *Corylus avellana* | Hazel | O |
| *Fraxinus excelsior* | Ash | O |
| *Galium aparine* | Cleavers | O |
| *Hedera helix* | Ivy | O |

| | | |
|---|---|---|
| *Hyacinthoides non-scripta* | Bluebell | O |
| *Ilex aquifolium* | Holly | O |
| *Mercurialis perennis* | Dog's Mercury | O |
| *Prunus spinosa* | Blackthorn | O |
| *Quercus robur* | English Oak | O |
| *Rosa canina agg.* | Dog Rose | O |
| *Sambucus nigra* | Elder | O |
| *Stellaria holostea* | Greater Stitchwort | O |
| *Tamus communis* | Black Bryony | O |
| *Urtica dioica* | Nettle | O |
| *Vicia sepium* | Bush Vetch | O |
| *Ulmus glabra* | Wych Elm | R |
| *Ulmus procera* | English Elm | R |



### Hedgerow Ground-flora and Field Margins

Across the site the groundflora of the hedgerows and field margins contains a wide variety of species including some ancient woodland indicator species.

| | | |
|---|---|---|
| *Anthriscus sylvestris* | Cow Parsley | F |
| *Arum maculatum* | Lords-and-Ladies | F |
| *Cirsium arvense* | Creeping Thistle | F |
| *Ficaria verna* | Lesser Celandine | F |
| *Galium aparine* | Cleavers | F |
| *Geranium molle* | Dove's-foot Cranesbill | F |
| *Geum urbanum* | Wood Avens | F |
| *Holcus lanatus* | Yorkshire-fog | F |
| *Hyacinthoides non-scripta* | Bluebell | F |
| *Phleum pratense* | Timothy | F |
| *Potentilla reptans* | Creeping Cinquefoil | F |
| *Rubus fruticosus agg.* | Bramble | F |
| *Silene dioica* | Red Campion | F |
| *Stachys sylvatica* | Hedge Woundwort | F |
| *Torilis japonica* | Upright Hedge-parsley | F |
| *Tussilago farfara* | Colt's-foot | F |
| *Urtica dioica* | Nettle | F |
| *Veronica chamaedrys* | Germander Speedwell | F |
| *Alliaria petiolata* | Garlic Mustard | O |
| *Allium ursinum* | Ramsons | O |
| *Arctium minus* | Lesser Burdock | O |
| *Cardamine flexuosa* | Wavy Bitter-cress | O |
| *Centaurea nigra* | Knapweed | O |
| *Chamaenerion angustifolium* | Rosebay Willowherb | O |
| *Cirsium palustre* | Marsh Thistle | O |
| *Cirsium vulgare* | Spear Thistle | O |
| *Dactylis glomerata* | Cock's-foot | O |

| | | |
|---|---|---|
| *Digitalis purpurea* | Foxglove | O |
| *Epilobium hirsutum* | Great Willowherb | O |
| *Equisetum arvense* | Field Horsetail | O |
| *Glechoma hederacea* | Ground-ivy | O |
| *Heracleum sphondylium* | Hogweed | O |
| *Hyacinthoides x massartiana* | Hybrid Bluebell | O |
| *Juncus effusus* | Soft Rush | O |
| *Mercurialis perennis* | Dog's Mercury | O |
| *Narcissus cvr.* | Narcissus cultivar | O |
| *Pentaglottis sempervirens* | Green Alkanet | O |
| *Pimpinella saxifraga* | Burnet-saxifrage | O |
| *Primula vulgaris* | Primrose | O |
| *Ranunculus repens* | Creeping Buttercup | O |
| *Rumex obtusifolius* | Broad-leaved Dock | O |
| *Senecio vulgaris* | Groundsel | O |
| *Stellaria graminea* | Lesser Stitchwort | O |
| *Taraxacum officinale agg.* | Dandelion | O |
| *Vicia sativa* | Common Vetch | O |
| *Vicia sepium* | Bush Vetch | O |
| *Viola riviniana* | Wood-dog-violet | O |
| *Arabadopsis thaliana* | Thale Cress | R |
| *Bryonia dioica* | White Bryony | R |
| *Dipsacus fullonum* | Teasel | R |
| *Oenanthe crocata* | Hemlock Water-dropwort | R |

# Further Target Notes

## Target Note RUTHINRDT001

Tall Ruderal along the banks of a flowing ditch (TN2).

| | | |
|---|---|---|
| *Urtica dioica* | Nettle | A |
| *Cirsium arvense* | Creeping Thistle | F |
| *Epilobium hirsutum* | Great Willowherb | F |
| *Rubus fruticosus agg.* | Bramble | F |
| *Heracleum sphondylium* | Hogweed | O |

## Target Note RUTHINRDT002

Ditch flowing from a culvert under Berse Lane eastwards along field boundaries through the site.

| | | |
|---|---|---|
| *Epilobium hirsutum* | Great Willowherb | F |
| *Typha latifolia* | Greater Reedmace | F |
| *Phragmites australis* | Reed | O |
| *Salix sp* | Willow species | O |



## Target Note RUTHINRDT003

Treeline

| | | |
|---|---|---|
| *Prunus spinosa* | Blackthorn | A |
| *Acer pseudoplatanus* | Sycamore | F |
| *Corylus avellana* | Hazel | F |
| *Crataegus monogyna* | Hawthorn | F |
| *Ilex aquifolium* | Holly | F |
| *Fraxinus excelsior* | Ash | O |



## Target Note RUTHINRDT004

Block of woodland / willow scrub containing a sprawling wetland area created by flowing water being dammed within the woodland and then culverted to rejoin the brook.

| | | |
|---|---|---|
| *Salix spp* | Willow species | D |
| *Crataegus monogyna* | Hawthorn | A |
| *Fraxinus excelsior* | Ash | A |
| *Acer campestre* | Field Maple | O |
| *Alnus glutinosa* | Alder | O |
| *Arctium minus* | Lesser Burdock | O |
| *Hedera helix* | Ivy | O |
| *Sambucus nigra* | Elder | O |



## Target Note RUTHINRDT005

This area has previously been recorded as a dry ephemeral pool of which at the time of survey was just a dry bare patch in the corner of the field. [redacted]

## Target Note RUTHINRDT006

Tall ruderal with occasional scrub

| | | |
|---|---|---|
| *Cirsium arvense* | Creeping Thistle | A |
| *Epilobium montanum* | Broad-leaved Willowherb | A |
| *Phalaris arundinacea* | Reed Canary-grass | A |
| *Urtica dioica* | Nettle | A |
| *Calystegia sp.* | Bindweed species | F |
| *Epilobium hirsutum* | Great Willowherb | F |
| *Heracleum sphondylium* | Hogweed | F |
| *Rumex obtusifolius* | Broad-leaved Dock | F |
| *Arrhenatherum elatius* | False Oat-grass | O |
| *Dactylis glomerata* | Cock's-foot | O |
| *Equisetum palustre* | Marsh Horsetail | O |
| *Rubus fruticosus agg.* | Bramble | O |
| *Senecio jacobaea* | Ragwort | O |



## Target Note RUTHINRDT007

An area of hawthorn dominated scrub, particularly in the west of this area, that is now starting to succeed to a young woodland, with occasional large mature trees mostly located in the east of the area. There is one very old large oak tree in this area. Several Ancient Woodland indicator species are present within the ground flora here.

| | | |
|---|---|---|
| *Crataegus monogyna* | Hawthorn | D |
| *Circaea lutetiana* | Enchanter's Nightshade | A |
| *Urtica dioica* | Nettle | A |
| *Acer pseudoplatanus* | Sycamore | F |
| *Mercurialis perennis* | Dog's Mercury | F |
| *Rubus fruticosus agg.* | Bramble | F |
| *Anthriscus sylvestris* | Cow Parsley | O |
| *Arum maculatum* | Lords-and-Ladies | O |
| *Asplenium scolopendrium* | Hart's-tongue | O |
| *Cirsium arvense* | Creeping Thistle | O |
| *Dryopteris affinis ssp. borreri* | Scaly Male-fern | O |
| *Fagus sylvatica* | Beech | O |
| *Festuca rubra* | Red Fescue | O |
| *Ficaria verna* | Lesser Celandine | O |
| *Galium aparine* | Cleavers | O |
| *Geranium robertianum* | Herb-Robert | O |
| *Geum urbanum* | Wood Avens | O |
| *Hedera helix* | Ivy | O |
| *Heracleum sphondylium* | Hogweed | O |
| *Hyacinthoides x massartiana* | Hybrid Bluebell | O |
| *Hedera helix* | Ivy | O |
| *Heracleum sphondylium* | Hogweed | O |
| *Ilex aquifolium* | Holly | O |
| *Quercus robur* | English Oak | O |
| *Ribes uva-crispa* | Gooseberry | O |
| *Rosa sp.* | Rose species | O |
| *Salix caprea* | Goat Willow | O |
| *Sambucus nigra* | Elder | O |
| *Stachys sylvatica* | Hedge Woundwort | O |
| *Ulmus glabra* | Wych Elm | O |
| *Urtica dioica* | Nettle | O |
| *Calystegia sp.* | Bindweed species | R |







## Target Note RUTHINRDT008

Strip of tall ruderal herb with scattered hawthorn saplings.

| | | |
|---|---|---|
| *Crataegus monogyna* | Hawthorn | A |
| *Cirsium arvense* | Creeping Thistle | F |
| *Dactylis glomerata* | Cock's-foot | F |
| *Rubus fruticosus agg.* | Bramble | F |
| *Senecio jacobaea* | Ragwort | F |
| *Urtica dioica* | Nettle | F |

| | | |
|---|---|---|
| *Achillea millefolium* | Yarrow | O |
| *Chamerion angustifolium* | Rosebay Willowherb | O |
| *Cirsium vulgare* | Spear Thistle | O |
| *Epilobium hirsutum* | Great Willowherb | O |
| *Holcus lanatus* | Yorkshire-fog | O |
| *Lathyrus pratensis* | Meadow Vetchling | O |
| *Phleum pratense* | Timothy | O |
| *Betula pendula* | Silver Birch | R |
| *Centaurea nigra* | Knapweed | R |
| *Fraxinus excelsior* | Ash | R |

## Target Note RUTHINRDT009

A very long broad-leaved woodland stretching right along the eastern and southern boundaries of an elongated field in the southwest corner of the site, across Berse Lane from the rest of the site. It is a mixed age woodland with a good amount of dead wood and a varied understorey which includes several Ancient Woodland indicator species. It supports a variety of fungi species including King Alfred's Cakes, and several species of waxcaps and bracket fungi. There is an outgrown defunct hedge dominated by hawthorn along the border between the field and the woodland, with occasional bits of broken fencing. At the southern end of the woodland, beyond where the brook has cut through it, the woodland then slopes steeply down towards Bersham Road and the B5098. The woodland to the south of the field is younger and more scrubby than other areas with an abundance of hawthorn.

| | | |
|---|---|---|
| *Acer pseudoplatanus* | Sycamore | A |
| *Hedera helix* | Ivy | A |
| *Ilex aquifolium* | Holly | A |
| *Rubus fruticosus agg.* | Bramble | A |
| *Allium ursinum* | Ramsons | F |
| *Arum maculatum* | Lords-and-Ladies | F |
| *Circaea lutetiana* | Enchanter's Nightshade | F |
| *Crataegus monogyna* | Hawthorn | F |
| *Cytisus striatus* | Hairy Broom | F |
| *Dryopteris filix-mas* | Male-fern | F |
| *Dryopteris affinis ssp. borreri* | Scaly Male-fern | F |
| *Ficaria verna* | Lesser Celandine | F |
| *Fraxinus excelsior* | Ash | F |
| *Geum urbanum* | Wood Avens | F |
| *Geranium robertianum* | Herb-Robert | F |
| *Hyacinthoides non-scripta* | Bluebell | F |
| *Juncus effusus* | Soft Rush | F |
| *Mercurialis perennis* | Dog's Mercury | F |
| *Moss sp.* | Moss species | F |
| *Primula vulgaris* | Primrose | F |
| *Rosa sp.* | Rose species | F |
| *Silene dioica* | Red Campion | F |
| *Stachys sylvatica* | Hedge Woundwort | F |
| *Viola riviniana* | Wood-dog-violet | F |
| *Agrostis stolonifera* | Creeping Bent | O |
| *Alliaria petiolata* | Garlic Mustard | O |
| *Arrhenatherum elatius* | False Oat-grass | O |
| *Asplenium scolopendrium* | Hart's-tongue | O |
| *Asplenium scolopendrium* | Hart's-tongue | O |
| *Betula pendula* | Silver Birch | O |
| *Brachypodium sylvaticum* | False Brome | O |
| *Carex pendula* | Pendulous Sedge | O |
| *Chamaenerion angustifolium* | Rosebay Willowherb | O |
| *Cirsium arvense* | Creeping Thistle | O |
| *Corylus avellana* | Hazel | O |
| *Dactylis glomerata* | Cock's-foot | O |
| *Dryopteris dilatata* | Broad Buckler-fern | O |
| *Epilobium montanum* | Broad-leaved Willowherb | O |
| *Festuca rubra* | Red Fescue | O |

| | | |
|---|---|---|
| *Galium aparine* | Cleavers | O |
| *Geranium pratense* | Meadow Cranesbill | O |
| *Geranium sylvaticum* | Wood Cranesbill | O |
| *Glechoma hederacea* | Ground-ivy | O |
| *Heracleum sphondylium* | Hogweed | O |
| *Holcus lanatus* | Yorkshire-fog | O |
| *Hyacinthoides sp.* | Bluebell species | O |
| *Lamium album* | White Dead-nettle | O |
| *Larix sp.* | Larch species | O |
| *Quercus robur* | English Oak | O |
| *Ribes sanguineum* | Flowering Currant | O |
| *Ribes uva-crispa* | Gooseberry | O |
| *Rosa sp.* | Rose species | O |
| *Rubus idaeus* | Raspberry | O |
| *Sambucus nigra* | Elder | O |
| *Sorbus aucuparia* | Rowan | O |
| *Sorbus aucuparia* | Mountain Ash | O |
| *Taraxacum officinale agg.* | Dandelion | O |
| *Ulmus glabra* | Wych Elm | O |
| *Ulmus sp.* | Elm species | O |
| *Urtica dioica* | Nettle | O |
| *Fallopia convolvulus* | Black Bindweed | R |
| *Prunus avium* | Wild Cherry | R |
| *Scrophularia auriculata* | Water Figwort | R |
| *Taxus baccata* | Yew | R |





## Target Note RUTHINRDT010

Rubble pile/ruins.



## Target Note RUTHINRDT011

Stand of rhodedendron within the woodland.

| | | |
|---|---|---|
| *Rhododendron ponticum* | Rhododendron | D |



## Target Note RUTHINRDT012

Stone wall



## Target Note RUTHINRDT013

Green lane/Bridle-path with outgrown hedgerow and lines of mature and mixed age trees and shrubs along both sides of a sunken path. Much of the hedgerows along the edges of the path are raised or on banks, thought to be a result of age and prolonged use of the path and the mature ages of the hedgerows and trees. There is a rich varied understorey which includes several Ancient Woodland indicator species along the full length of the path. Holes and fresh digging along the banks of the hedgerows are considered to likely be from rabbits.

| | | |
|---|---|---|
| *Circaea lutetiana* | Enchanter's Nightshade | A |
| *Dactylis glomerata* | Cock's-foot | A |
| *Hedera helix* | Ivy | A |
| *Allium ursinum* | Ramsons | F |
| *Anemone nemorosa* | Wood Anemone | F |
| *Arum maculatum* | Lords-and-Ladies | F |
| *Crataegus monogyna* | Hawthorn | F |
| *Cytisus striatus* | Hairy Broom | F |
| *Ficaria verna* | Lesser Celandine | F |
| *Geum urbanum* | Wood Avens | F |
| *Hyacinthoides x massartiana* | Hybrid Bluebell | F |
| *Pteridium aquilinum* | Bracken | F |
| *Urtica dioica* | Nettle | F |
| *Veronica hederifolia hederifolia* | Ivy-leaved Speedwell | F |
| *Aegopodium podagraria* | Ground-elder | O |
| *Alliaria petiolata* | Garlic Mustard | O |
| *Anthriscus sylvestris* | Cow Parsley | O |
| *Arctium minus* | Lesser Burdock | O |
| *Digitalis purpurea* | Foxglove | O |
| *Dryopteris filix-mas* | Male-fern | O |
| *Geranium robertianum* | Herb-Robert | O |
| *Glechoma hederacea* | Ground-ivy | O |
| *Hyacinthoides non-scripta* | Bluebell | O |
| *Ilex aquifolium* | Holly | O |
| *Lamiastrum galeobdolon* | Yellow Archangel | O |
| *Lamiastrum galeobdolon argentatum* | Variegated Yellow Archangel | O |
| *Lamium purpureum* | Red Deadnettle | O |
| *Lycopus europaeus* | Gypsywort | O |
| *Oxalis acetosella* | Wood Sorrel | O |
| *Plantago major* | Greater Plantain | O |
| *Prunella vulgaris* | Selfheal | O |
| *Ranunculus repens* | Creeping Buttercup | O |
| *Rosa sp.* | Rose species | O |
| *Sambucus nigra* | Elder | O |
| *Silene dioica* | Red Campion | O |
| *Stellaria holostea* | Greater Stitchwort | O |
| *Tussilago farfara* | Colt's-foot | O |
| *Cirsium palustre* | Marsh Thistle | R |
| *Cirsium vulgare* | Spear Thistle | R |

| | | |
|---|---|---|
| *Dryopteris affinis ssp. borreri* | Scaly Male-fern | R |
| *Heracleum sphondylium* | Hogweed | R |
| *Ribes uva-crispa* | Gooseberry | R |
| *Vicia sepium* | Bush Vetch | R |



## Target Note RUTHINRDT014

Green lane

| | | |
|---|---|---|
| *Holcus lanatus* | Yorkshire-fog | A |
| *Ranunculus repens* | Creeping Buttercup | A |
| *Pteridium aquilinum* | Bracken | F |
| *Rumex obtusifolius* | Broad-leaved Dock | F |
| *Urtica dioica* | Nettle | F |
| *Cirsium arvense* | Creeping Thistle | O |
| *Digitalis purpurea* | Foxglove | O |
| *Dryopteris filix-mas* | Male-fern | O |
| *Geum urbanum* | Wood Avens | O |
| *Heracleum sphondylium* | Hogweed | O |
| *Sambucus nigra* | Elder | O |
| *Stellaria media* | Chickweed | O |
| *Vicia sp.* | Vetch species | O |
| *Galium aparine* | Cleavers | R |



## Target Note RUTHINRDT015

Small patch of broad leaved woodland

| | | |
|---|---|---|
| *Ilex aquifolium* | Holly | A |
| *Acer pseudoplatanus* | Sycamore | F |

| | | |
|---|---|---|
| *Crataegus monogyna* | Hawthorn | F |
| *Sambucus nigra* | Elder | F |
| *Corylus avellana* | Hazel | O |

## Target Note RUTHINRDT016

Lane to converted cottages. [redacted]

| | | |
|---|---|---|
| *Urtica dioica* | Nettle | A |
| *Aegopodium podagraria* | Ground-elder | F |
| *Cytisus striatus* | Hairy Broom | F |
| *Dactylis glomerata* | Cock's-foot | F |
| *Dryopteris filix-mas* | Male-fern | F |
| *Geum urbanum* | Wood Avens | F |
| *Glechoma hederacea* | Ground-ivy | F |
| *Mercurialis perennis* | Dog's Mercury | F |
| *Pteridium aquilinum* | Bracken | F |
| *Arrhenatherum elatius* | False Oat-grass | O |
| *Geranium robertianum* | Herb-Robert | O |
| *Hedera helix* | Ivy | O |
| *Heracleum sphondylium* | Hogweed | O |
| *Rosa sp.* | Rose species | O |
| *Rubus fruticosus agg.* | Bramble | O |
| *Stachys sylvatica* | Hedge Woundwort | O |



## Target Note RUTHINRDT017

[redacted]



## Target Note RUTHINRDT018

Arable land present in the majority of the fields along the north, east and southern boundaries of the site. The crops were too young to identify at the time of surveys..



## Target Note RUTHINRDT019

Improved grassland.

| | | |
|---|---|---|
| *Lolium perenne* | Ryegrass | D |
| *Cardamine flexuosa* | Wavy Bitter-cress | O |
| *Dactylis glomerata* | Cock's-foot | O |
| *Ranunculus repens* | Creeping Buttercup | O |
| *Rumex crispus* | Curled Dock | O |
| *Rumex obtusifolius* | Broad-leaved Dock | O |
| *Stellaria media* | Chickweed | O |
| *Taraxacum officinale agg.* | Dandelion | O |
| *Trifolium repens* | White Clover | O |
| *Veronica chamaedrys* | Germander Speedwell | O |
| *Vicia sepium* | Bush Vetch | O |
| *Festuca rubra* | Red Fescue | R |
| *Heracleum sphondylium* | Hogweed | R |
| *Plantago lanceolata* | Ribwort Plantain | R |
| *Potentilla reptans* | Creeping Cinquefoil | R |
| *Rumex acetosa* | Common Sorrel | R |



## Target Note RUTHINRDT020

Areas and fields of semi-improved grassland across the site contained the same or similar compositions of species, though the SI fields in the northwest of the site are marginally more species diverse.

| | | | |
|---|---|---|---|
| *Lolium perenne* | Ryegrass | D | *Trifolium repens* |
| | White Clover | A | |
| *Cardamine pratensis* | Cuckooflower | F | |
| *Cirsium arvense* | Creeping Thistle | F | |
| *Dactylis glomerata* | Cock's-foot | F | |
| *Holcus lanatus* | Yorkshire-fog | F | |
| *Luzula campestris* | Field Woodrush | F | |
| *Ranunculus repens* | Creeping Buttercup | F | |
| *Rumex obtusifolius* | Broad-leaved Dock | F | |
| *Taraxacum officinale agg.* | Dandelion | F | |
| *Achillea millefolium* | Yarrow | O | |
| *Allium ursinum* | Ramsons | O | |
| *Anthriscus sylvestris* | Cow Parsley | O | |
| *Cardamine flexuosa* | Wavy Bitter-cress | O | |
| *Chamaenerion angustifolium* | Rosebay Willowherb | O | |
| *Cirsium arvense* | Creeping Thistle | O | |
| *Cirsium vulgare* | Spear Thistle | O | |
| *Festuca rubra* | Red Fescue | O | |
| *Ficaria verna* | Lesser Celandine | O | |
| *Juncus effusus* | Soft Rush | O | |
| *Lamium album* | White Dead-nettle | O | |
| *Lamium purpureum* | Red Deadnettle | O | |
| *Moss sp.* | Moss species | O | |
| *Phleum pratense* | Timothy | O | |
| *Plantago major* | Greater Plantain | O | |
| *Poa annua* | Annual Meadow-grass | O | |
| *Poa pratensis* | Smooth Meadow-grass | O | |
| *Ranunculus acris* | Meadow Buttercup | O | |
| *Scorzoneroides autumnalis* | Autumn Hawkbit | O | |
| *Sisymbrium officinale* | Hedge Mustard | O | |
| *Stellaria media* | Chickweed | O | |
| *Torilis japonica* | Upright Hedge-parsley | O | |
| *Trifolium pratense* | Red Clover | O | |
| *Trifolium repens* | White Clover | O | |
| *Urtica dioica* | Nettle | O | |

| | | |
|---|---|---|
| *Veronica agrestis* | Field Speedwell | O |
| *Veronica hederifolia hederifolia* | Ivy-leaved Speedwell | O |
| *Acer pseudoplatanus* | Sycamore | R |
| *Arum maculatum* | Lords-and-Ladies | R |
| *Cirsium palustre* | Marsh Thistle | R |
| *Galium aparine* | Cleavers | R |
| *Matricaria chamomilla* | Scented Mayweed | R |
| *Persicaria maculosa* | Redshank | R |
| *Pimpinella saxifraga* | Burnet-saxifrage | R |
| *Senecio vulgaris* | Groundsel | R |
| *Silene dioica* | Red Campion | R |
| *Sonchus asper* | Prickly Sow-thistle | R |
| *Veronica chamaedrys* | Germander Speedwell | R |



## Target Note RUTHINRDT021

Pond, very poor water quality in the centre of a field, no submergent vegetation and regularly used by waterfowl. A partially filled ditch runs north from the pond through the field.





**Target Note RUTHINRDT022**

A piece of derelict land between a large barn to the south and Berse Lane to the north. It contains lots of spoil and rubble heaps, storage of farm equipment and materials, and much of the area has become vegetated with a species rich composition including many pioneer species.

| | | |
|---|---|---|
| *Bellis perennis* | Daisy | F |
| *Chamaenerion angustifolium* | Rosebay Willowherb | F |
| *Cirsium arvense* | Creeping Thistle | F |
| *Crataegus monogyna* | Hawthorn | F |
| *Festuca rubra* | Red Fescue | F |
| *Geranium robertianum* | Herb-Robert | F |
| *Glechoma hederacea* | Ground-ivy | F |
| *Rumex obtusifolius* | Broad-leaved Dock | F |
| *Urtica dioica* | Nettle | F |
| *Achillea millefolium* | Yarrow | O |
| *Alliaria petiolata* | Garlic Mustard | O |
| *Anthriscus sylvestris* | Cow Parsley | O |
| *Arum maculatum* | Lords-and-Ladies | O |
| *Cardamine flexuosa* | Wavy Bitter-cress | O |
| *Carex pendula* | Pendulous Sedge | O |
| *Epilobium hirsutum* | Great Willowherb | O |
| *Ficaria verna* | Lesser Celandine | O |
| *Galium aparine* | Cleavers | O |

| | | |
|---|---|---|
| *Hedera helix* | Ivy | O |
| *Heracleum sphondylium* | Hogweed | O |
| *Holcus lanatus* | Yorkshire-fog | O |
| *Jacobaea vulgaris* | Common Ragwort | O |
| *Lamium album* | White Dead-nettle | O |
| *Lamium purpureum* | Red Deadnettle | O |
| *Myosotis sp.* | Forget-me-not species | O |
| *Poa annua* | Annual Meadow-grass | O |
| *Ranunculus repens* | Creeping Buttercup | O |
| *Rubus fruticosus agg.* | Bramble | O |
| *Salix species* | Willow species | O |
| *Stachys sylvatica* | Hedge Woundwort | O |
| *Trifolium repens* | White Clover | O |
| *Tussilago farfara* | Colt's-foot | O |
| *Veronica chamaedrys* | Germander Speedwell | O |
| *Vicia sativa* | Common Vetch | O |
| *Brassica napus* | Rape | R |







**Target Note RUTHINRDT023**

Small brick building / animal field shelter with an open front and a flat ivy-covered roof. There is no bat roosting potential within this building. It has a concrete slab floor, some of which has fallen through.





**Target Note RUTHINRDT024**

A brook running west to east through a woodland (TN9) and emerges from a culvert near to the adjacent field. It is a shallow brook with a base substrate made up of mud, silt and stone. The surrounding woodland has a similar species composition to that of TN9 with a few additional species along the banks of the brook such as pendulous sedge and water figwort. Additional species and those occurring more frequently along the banks of the brook than in the rest of TN9 include:

| | | |
|---|---|---|
| *Carex pendula* | Pendulous Sedge | F |
| *Ficaria verna* | Lesser Celandine | F |
| *Geum urbanum* | Wood Avens | F |
| *Juncus effusus* | Soft Rush | F |
| *Ranunculus repens* | Creeping Buttercup | F |
| *Urtica dioica* | Nettle | F |
| *Scrophularia auriculata* | Water Figwort | O |







**Target Note RUTHINRDT025**

Shallow ditch running across the field which has the culverted brook of TN24 running underneath, though some of the concrete covering has broken and fallen in at several locations across the field. In a couple of

areas the concrete edging either side the furrow is visible and open.

| | | |
|---|---|---|
| *Holcus lanatus* | Yorkshire-fog | F |
| *Lolium perenne* | Perennial Ryegrass | F |
| *Potentilla reptans* | Creeping Cinquefoil | F |
| *Ranunculus repens* | Creeping Buttercup | F |
| *Anthriscus sylvestris* | Cow Parsley | O |
| *Cirsium vulgare* | Spear Thistle | O |
| *Festuca rubra* | Red Fescue | O |
| *Geranium molle* | Dove's-foot Cranesbill | O |
| *Heracleum sphondylium* | Hogweed | O |
| *Jacobaea vulgaris* | Common Ragwort | O |
| *Rumex crispus* | Curled Dock | O |
| *Rumex obtusifolius* | Broad-leaved Dock | O |
| *Taraxacum officinale agg.* | Dandelion | O |
| *Urtica dioica* | Nettle | O |
| *Scrophularia auriculata* | Water Figwort | R |



**Target Note RUTHINRDT026**

A depression in the northeast corner of the field with a variety of scattered scrub and trees including holly, hawthorn and bramble.



**Target Note RUTHINRDT027**

Small corrugated metal field shelter with negligible potential for roosting bats.



**Target Note RUTHINRDT028**

A large mast within the field and it's associated building and stabilising anchor points.  The brick building has a flat roof and is of negligible potential for roosting bats.  There is a hardcore track through the field to these structures.









**Target Note RUTHINRDT029**

A line of cottages combined into one with associated outbuildings and a large barbeque hut at the eastern end of the garden, though this property has been cut out of the red-line boundary of the site.  They all look recently refurbished with no obvious features suitable for bats.



**Target Note RUTHINRDT030**

Long thin strip of semi-natural broad-leaved woodland along the field edge with a public footpath running through it. It has a hawthorn hedge (H63) along it's western edge at the field boundary.

| | | |
|---|---|---|
| *Acer pseudoplatanus* | Sycamore | A |
| *Corylus avellana* | Hazel | A |
| *Crataegus monogyna* | Hawthorn | A |
| *Prunus spinosa* | Blackthorn | F |
| *Rosa sp.* | Rose species | F |
| *Rubus fruticosus agg.* | Bramble | F |
| *Sambucus nigra* | Elder | F |
| *Ilex aquifolium* | Holly | O |



**Target Note RUTHINRDT031**

[redacted]



**Target Note RUTHINRDT032**

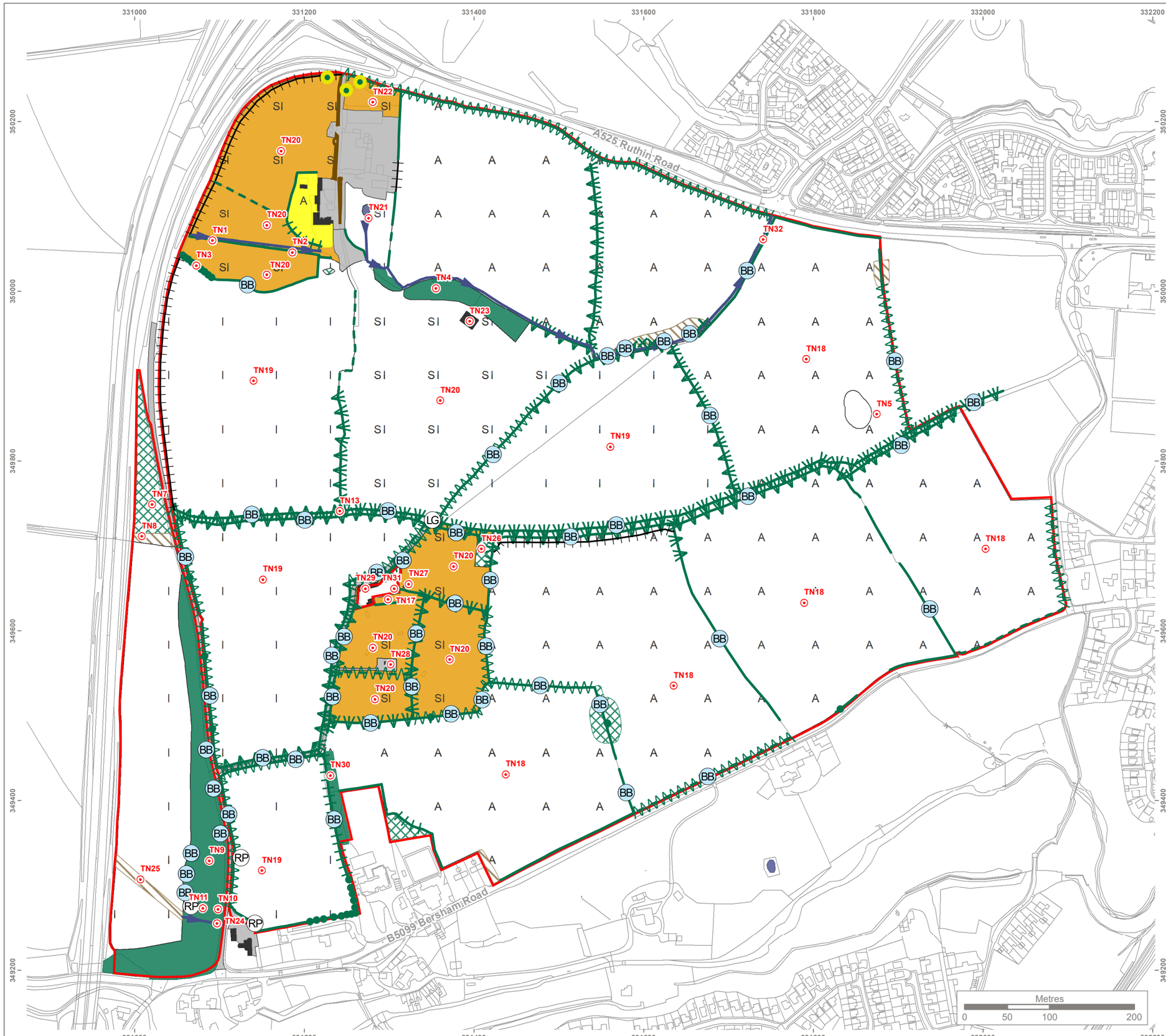
A brook flowing northwards with a hedge along it's raised south eastern bank and tall ruderal vegetation along it's raised north western bank.  The brook has a stone and silt base and contains large numbers of a tiny unidentified spire shelled freshwater snail in some areas.





# DRAWINGS

## G8745.018 – Phase 1 Habitat Survey Map




## KEY

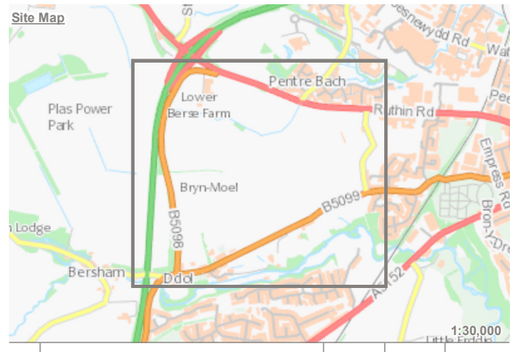
- Site boundary
- Target note
- LG — Yellow archangel
- RP — Rhododendron ponticum
- BB — Bluebell (where associated with a hedgerow location is not exact but only denotes that bluebells are present)
- Scattered scrub
- Scattered broad-leaved tree
- Broad-leaved tree with low bat suitability
- Running water
- Native species-rich intact hedge
- Species-poor intact hedge
- Native species-rich defunct hedge
- Species-poor defunct hedge
- Native species-rich hedge and trees
- Species-poor hedge and trees
- Fence
- Wall
- Semi-natural broad-leaved woodland
- Dense/continuous scrub
- Semi-improved neutral grassland
- Improved grassland
- Poor semi-improved grassland
- Tall ruderal
- Standing water
- Arable
- Amenity grassland
- Building
- Hardstanding

**Note:**
The locations of habitats and habitat features are indicative.

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Site Map




| Rev | Description | Drawn | Approved | Date |
|---|---|---|---|---|
| | | | | |

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Title
Phase 1 Habitat Survey

Drawing Number
G8745.018

| Drawn | Checked | Approved | Scale | Date |
|---|---|---|---|---|
| CW | SA | CG | 1:4,500 @ A3 | 07/11/2022 |

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