

Appendix 7.2 Phase 1 Habitat Survey Report - 2021 Update

July 2021









THE LANES PENWORTHAM PHASE 1 HABITAT SURVEY REPORT - 2021 UPDATE

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DRAWING

G6900.03.001 - Phase 1 Habitat Survey Map



1.0 Introduction

- 1.1 Taylor Wimpey and Homes England are seeking to obtain planning permission for residential-led mixed-use development on land to the east of Penwortham Way known as 'The Lanes, Penwortham' (hereafter referred to as 'the site'). Within this report "the site" refers to land that falls within the application boundaries A and B as illustrated in Figure 1 below.
- 1.2 TEP was commissioned, in February 2018, to undertake a Phase 1 habitat survey at the site. An update to this survey was carried out in April 2021.

Description of Site

- 1.3 The central grid reference of the site is SD 53329 25884 and the location of the site is shown in Figure 1 below.
- 1.4 The site is irregular in shape and occupies approximately 51.86ha on land to the east of Penwortham Way to the south of the settlement of Penwortham.
- 1.5 The site is bound by Penwortham Way to the west, existing residential development south of Kingsfold Drive to the north, the West Coast mainline railway to the east and agricultural fields to the south.
- 1.6 The site comprises a mix of land uses including:
 - Agricultural land separated into a number of fields by fences, hedgerows and trees;
 - · Pylon accommodation land;
 - Pylon corridor; and
 - Roads.
- 1.7 The site surrounds a number of residential dwellings and light industrial buildings which do not lie within the application boundary.



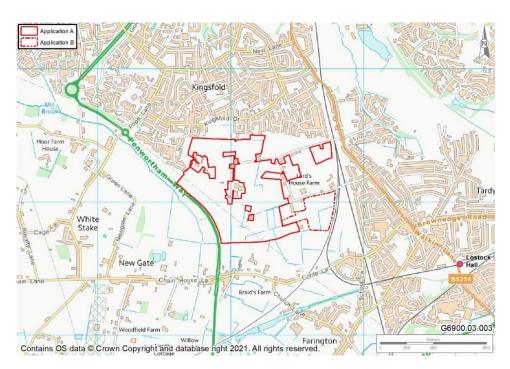


Figure 1: Site Plan.



2.0 Methods

- 2.1 A Phase 1 habitat survey was carried out by experienced botanists Lynsey Crellin (FISC Level 5), Val Gateley (FISC Level 5) and Lindsey Roberts (FISC Level 4) on 19th and 20th April, and 14th, 15th and 18th May 2018. The updated survey was carried out by Damian Young (FISC Level 4) between 8th and 14th April 2021. This also included areas that were previously not surveyed.
- 2.2 The surveys was carried out in accordance with the Phase 1 habitat assessment methods (JNCC 2010¹) and Guidelines for Preliminary Ecological Appraisal (CIEEM 2017²). The method records the habitat types present in and immediately surrounding the site, based on the JNCC descriptions. Plant species were identified in accordance with Stace (2010) and recorded as target notes using the DAFOR scale. Weather conditions during the survey were dry and bright.



3.0 Results

- 3.1 Table 1 below provides a broad description and photographs of the habitats present within the site. More details are provided in the Target Note (TN) report in Appendix A. Habitats are illustrated on the Phase 1 Habitat Map (G6900.03.001) and include newly accessed areas for survey. The updated walkover in 2021 confirmed that the range and status of habitats remain unchanged.
- 3.2 The following habitats are present within, or adjoining, the site:
 - Improved grassland;
 - Poor semi-improved grassland;
 - Arable;
 - Marsh/marshy grassland;
 - Swamp;
 - Standing water;
 - · Ditches;
 - Running water;
 - · Hedgerows;
 - Tall ruderal;
 - Dense/continuous scrub;
 - Plantation broad-leaved woodland;
 - · Amenity grassland;
 - Scattered trees/scrub;
 - Buildings;
 - · Bare ground; and
 - · Hardstanding.



Table 1: Habitats Present in Site

Habitat Type	Habitat Description and Photographs
Improved grassland	The majority of the site is formed of improved grassland fields, many of which have been grazed to a very short sward by cattle (TN8 and TN10). Floral diversity is minimal in these areas, perennial ryegrass <i>Lolium perenne</i> is dominant with rare herbaceous species such as broadleaved dock <i>Rumex obtusifolius</i> and creeping thistle <i>Cirsium arvense</i> .
Poor semi- improved grassland	There are several poor semi-improved grassland fields scattered throughout the site, most of which have been heavily grazed by horses or sheep. Again, floral diversity is limited although a few more grass species are evident such as rough meadow-grass <i>Poa trivialis</i> , cock's-foot <i>Dactylis</i>
	glomerata and Yorkshire fog Holcus lanatus.
	An unmanaged field of poor semi-improved grassland is present in the north west corner of the site (TN4).



Habitat Type	Habitat Description and Photographs
7,555,555	A few arable fields are present in the centre of the site, to the south of
Arable	Bee Lane. These are managed to produce cereal crop.
Marsh/ marshy grassland	An area of marshy grassland are present in a damp corner of the field (TN6). These are likely to dry out during the summer months. Vegetation composition is similar to that of the surrounding grassland with dominant soft rush <i>Juncus effusus</i> .
Swamp	A small patch of swamp is present within improved grassland to the south of Nib Lane (TN2). This is likely to dry out during the summer months.
	Aquatic vegetation including common duckweed <i>Lemna minor</i> , water starwort <i>Callitriche stagnalis</i> and floating sweet-grass <i>Glyceria fluitans</i> have begun to colonise.



Habitat Type	Habitat Description and Photographs
Standing water	There are two field ponds present within the site. One is adjacent to the west site boundary and is colonised by willow scrub and some aquatic vegetation (TN1). The second is a shallow muddy pond in the centre of the site adjacent to a pile of recently tipped material (TN3).



Habitat Type	Habitat Description and Photographs
Ditches	A large number of ditches are present along field boundaries which are likely in place for irrigation purposes. The majority of these ditches were found to be dry or partially damp with limited aquatic vegetation (TN7).
Running water	A small stream is present in the north part of the site, adjacent to a public footpath (TN11).



Habitat Type	Habitat Description and Photographs
Hedgerows	The majority of the field boundaries comprise native hedgerows including intact, defunct and hedgerows with trees.
	These are largely species-rich with abundant hawthorn <i>Crataegus monogyna</i> and blackthorn <i>Prunus spinosa</i> and frequent elder <i>Sambucus nigra</i> and hazel <i>Corylus avellana</i> . Mature trees include English oak <i>Quercus robur</i> , alder <i>Alnus glutinosa</i> , ash <i>Fraxinus excelsior</i> and sycamore <i>Acer pseudoplatanus</i> .
	These hedgerows were subject to a Hedgerow Assessment by TEP, concurrently with the Phase 1 habitat survey, to determine whether they are "Important" under the Hedgerow Regulations 1997. The results are detailed within the Hedgerow Assessment report (ref 6900.008).



Habitat Type	Habitat Description and Photographs
Tall ruderal	Small stands of tall ruderal vegetation are present adjacent to field boundaries and ditches. These are generally dominated by nettle Urtica dioica with abundant great willowherb Epilobium hirsutum and occasional cow parsley Anthriscus sylvestris.
Dense/ continuous scrub	Small areas of dense/continuous scrub are present along field boundaries and adjacent to pond (TN5). They are dominated by bramble <i>Rubus fruticosus</i> agg. with frequent willow <i>Salix sp</i> . A larger parcel of dense/continuous scrub is present off Lord's Lane (TN12). This is identified as traditional orchard within the desk based assessment (TEP report ref: 6900.007), however it was found to be significantly overgrown and unmanaged and therefore has been categorised as dense scrub.



Habitat Type	Habitat Description and Photographs
Plantation broad-leaved woodland	A band of semi-mature plantation broad-leaved woodland screens the south-west boundary of the site from the A582 Penwortham Way (TN9).
Amenity grassland	Amenity grassland is present along road edges and associated with residential gardens.
Scattered trees/scrub	There are many scattered mature trees, mostly broad-leaved with the occasional conifer, within site along with stands of scattered scrub. Species composition is similar to that of nearby hedgerows and the plantation woodland, with some ornamental species also present. An Arboricultural Impact Assessment has been undertaken of the site (TEP Report Ref: 6900.03.010).



Habitat Type	Habitat Description and Photographs
Buildings	There are a small number of buildings within the site including a house, barns and several outbuildings used for agricultural purposes or storage. Those that fall within the development area include three barns off Lord's Lane, a poultry shed off Moss Lane and a collection of small outbuildings off Flag Lane.
Bare ground	Small areas of bare ground are present within the site where land has recently been cleared.
Hardstanding	There are a number of roads including Bee Lane, Moss Lane, Lord's Lane, Nib Lane and Flag Lane which run through the site.

Protected and invasive plant species

- 3.3 The following notable plant species were recorded within the site:
 - Japanese knotweed Fallopia japonica adjacent to Hedgerow 56;
 - Japanese rose Rosa rugosa within Hedgerow 63; and
 - Native bluebell *Hyacinthoides non-scripta* within Hedgerows 19 and 32.

Connectivity with the wider landscape

3.4 Connectivity between the survey area and the wider landscape to the north and east is limited by residential development. To the south and west lies agricultural land, similar to that within the site. There is some connectivity between the site and these areas via the railway which borders the east boundary and curves in a westerly direction along the south boundary. This forms a commuting route for species such as bats. However green linkages within the landscape are limited to hedgerows and small groups of trees. The nearest high quality habitat is the River Ribble approximately 1.75km to the north of the survey area, with connectivity via the railway.



<u>Fauna</u>

3.5 The habitats in the site have the potential to support protected and notable species such as amphibians, badgers, bats, birds and water vole. Detailed surveys for these species have been undertaken and separate technical reports have been produced.



4.0 Conclusion

- 4.1 The majority of the site is formed of intensively managed agricultural land which is of low conservation value and therefore there are opportunities to significantly enhance the site for local wildlife within the scheme. There are, however, several habitats which are of higher quality including hedgerows, wet ditches, ponds and mature trees. The loss of these habitats would reduce the overall ecological value of the site and could have detrimental impacts to the protected species they may support.
- 4.2 Hedgerows and ponds are listed as a Priority Habitat under Section 41 of the NERC Act 2006. Hedgerows are also listed under the Lancashire Biodiversity Action Plan.
- 4.3 Japanese knotweed and Japanese rose are present in the site. These are listed as a non-native invasive species under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). It is an offence to cause the spread of these species in the wild.
- 4.4 Native bluebell has been recorded in the site. This is listed as a protected species under Schedule 8 of the Wildlife and Countryside Act 1981 (as amended).



5.0 Recommendations

- 5.1 Hedgerows within the site should be retained where possible and protected from development in accordance with the recommendations made in the Hedgerow Assessment Report (TEP Report Ref: 6900.003).
- 5.2 Mature trees should also be retained where possible and protected in accordance with the Arboricultural Impact Assessment (TEP Report Ref: 6900.03.010).
- 5.3 Ponds and other water bodies within the site should be retained, protected and enhanced where possible. Best practice pollution and siltation prevention measures should be implemented to minimise impacts to these areas.
- 5.4 The plot of land at TN12, categorised as dense scrub, should be retained and managed to restore it as a traditional orchard.
- 5.5 An invasive and protected plant species management plan should be produced which should include the removal of the Japanese knotweed and Japanese rose from the site and the protection of the native bluebell.
- 5.6 Recommendations within the protected species survey reports should be implemented within the site.
- 5.7 Opportunities for the enhancement of the site should be considered. This could include new habitat creation, strengthening of green linkages within the site and native species planting.



APPENDIX A: Target Note Report



Target Notes Report

Target Note 1

Shallow pond with surrounding trees.

Alnus glutinosa	Alder	D
Juncus effusus	Soft Rush	F
Salix species	Willow species	F
Calystegia sp.	Bindweed species	0
Equisetum sp.	Horsetail species	0
Glyceria fluitans	Floating Sweet-grass	0
Glyceria maxima	Reed Sweet-grass	0

Target Note 2

Very shallow flooded depression in field, dominated by blanket weed, likely to dry out.

Lemna minor	Common Duckweed	F
Callitriche sp.	Water Starwort species	0
Glyceria fluitans	Floating Sweet-grass	0

Target Note 3

Shallow muddy pond in corner of field. Much tipped material.

Iris pseudacorus	Yellow Flag Iris	O
Oenanthe crocata	Hemlock Water-dropwort	0

Target Note 4

Unmanaged tussocky field.

Alopecurus pratensis	Meadow Foxtail	D
Holcus lanatus	Yorkshire-fog	Α
Galium aparine	Cleavers	F
Ranunculus repens	Creeping Buttercup	F
Rumex crispus	Curled Dock	F
Urtica dioica	Nettle	F
Anthriscus sylvestris	Cow Parsley	0
Cynosurus cristatus	Crested Dog's-tail	0
Epilobium hirsutum	Great Willowherb	0
Geranium pyrenaicum	Hedgerow Cranesbill	0
Heracleum sphondylium	Hogweed	0
Juncus effusus	Soft Rush	0
Juncus inflexus	Hard Rush	0
Plantago lanceolata	Ribwort Plantain	0
Potentilla anserina	Silverweed	0
Ranunculus acris	Meadow Buttercup	0
Rumex acetosa	Common Sorrel	0
Rumex obtusifolius	Broad-leaved Dock	0
Senecio jacobaea	Common Ragwort	0
Taraxacum sp.	Dandelion species	0
Salix species	Willow species	R



Target Note 5

Area of dense bramble scrub with band of woodland around, possibly planted.

Rubus fruticosus agg.	Bramble	D
Crataegus monogyna	Hawthorn	F
Anthriscus sylvestris	Cow Parsley	0
Hedera helix	lvy	0
Prunus avium	Wild Cherry	0
Acer platanoides	Norway Maple	R
Fagus sylvatica	Beech	R
Hyacinthoides hispanica	Spanish Bluebell	R
Ilex aquifolium	Holly	R
Quercus robur	English Oak	R
Sambucus nigra	Elder	R
Symphoricarpos albus	Snowberry	R
Tilia sp.	Lime species	R
Ulmus procera	English Elm	R

Target Note 6

Patch of rush.

Juncus effusus Soft Rush D

Target Note 7

A ditch located between individual horse-grazed fields. The ditch banks were fenced, steep and approximately 1m high. The channel was less than 1m wide and the water depth was shallow. The bank- side vegetation was a mixed mosaic of tall ruderal including great willowherb and common nettle; and semi-improved grassland species including annual meadow grass creeping bent.

Arrhenatherum elatius	False Oat-grass	Α
Epilobium hirsutum	Great Willowherb	Α
Urtica dioica	Nettle	Α
Agrostis stolonifera	Creeping Bent	F
Holcus lanatus	Yorkshire-fog	F
Lolium perenne	Perennial Ryegrass	F
Poa annua	Annual Meadow-grass	F
Ranunculus acris	Meadow Buttercup	F
Ranunculus repens	Creeping Buttercup	F
Rumex obtusifolius	Broad-leaved Dock	F
Trifolium repens	White Clover	F
Alopecurus pratensis	Meadow Foxtail	0
Cerastium fontanum	Common Mouse-ear	0
Elytrigia repens	Common Couch	0
Lathyrus pratensis	Meadow Vetchling	0
Plantago major	Greater Plantain	0
Stachys sylvatica	Hedge Woundwort	0
Taraxacum officinale agg.	Dandelion	0
Vicia cracca	Tufted Vetch	0
Dactylis glomerata	Cock's-foot	R



Target Note 8

A fenced field boundary located to the east of improved grassland. Viewed from the west side only due to no access to the land to the east. The associated features include a dry ditch, semi-mature scattered trees, tall ruderal and semi-improved, neutral grassland species as well as bramble scrub. The ditch contained water, running from east to west, with a poor semi-improved grassland field to the north and an improved grassland field to the south. The ditch channel was less than 1m wide, with a shallow water depth, steep banks with a height of approximately 2m, a sediment base and a fence running the entire length. Associated species include hemlock water dropwort.

Urtica dioica	Nettle	Α
Fraxinus excelsior	Ash	F
Galium aparine	Cleavers	F
Oenanthe crocata	Hemlock Water-dropwort	F
Rubus fruticosus agg.	Bramble	F
Salix caprea	Goat Willow	F
Acer pseudoplatanus	Sycamore	Ο
Alnus glutinosa	Alder	О
Calystegia sepium	Hedge Bindweed	О
Cirsium arvense	Creeping Thistle	О
Crataegus monogyna	Hawthorn	О
Elytrigia repens	Common Couch	0
Heracleum sphondylium	Hogweed	0
Sambucus nigra	Elder	О
Lathyrus pratensis	Meadow Vetchling	R
Vicia cracca	Tufted Vetch	R

Target Note 9

A plantation with a species-rich hedgerow running along its length, located between the side of the A582 – Penwortham Way and the survey site boundary.

Rubus fruticosus agg.	Bramble	F
Cornus sanguinea	Dogwood	0
Crataegus monogyna	Hawthorn	0
Fraxinus excelsior	Ash	0
Urtica dioica	Nettle	0
Acer sp.	Maple species	R
Epilobium hirsutum	Great Willowherb	R
Tilia cordata	Small-leaved Lime	R
Ulmus procera	English Elm	R
Vicia sepium	Bush Vetch	R

Target Note 10

A fenced field boundary located to the east of improved grassland. Viewed from the west side only due to no access to the land to the east. The associated features include a dry ditch, semi-mature scattered trees, tall ruderal and semi-improved, neutral grassland species as well as bramble scrub.

Fraxinus excelsior	Common Ash	F
Urtica dioica	Common Nettle	F
Salix caprea	Goat Willow	F
Alnus glutinosa	Common Alder	0



Sambucus nigra	Elder	R
Heracleum sphondylium	Hogweed	R
Acer pseudoplatanus	Sycamore	R

Target Note 11

A slow-flowing ditch located alongside a hedgerow to the north of Bee Lane. The heavily shaded ditch was approximately 2m wide, 1m deep with a water depth of 10cm.

Rubus fruticosus agg	Bramble	Α
Urtica dioica	Nettle	Α
Calystegia sepium	Hedge bindweed	Α
Holcus lanatus	Yorkshire fog	Α
Dactylis glomerata	Cock's-foot	Ο
Epilobium hirsutum	Great willowherb	Ο
Heracleum sphondylium	Hogweed	0
Juncus effuses	Soft rush	R
Myosotis scorpioides	Water forget-me-not	R

Target Note 12

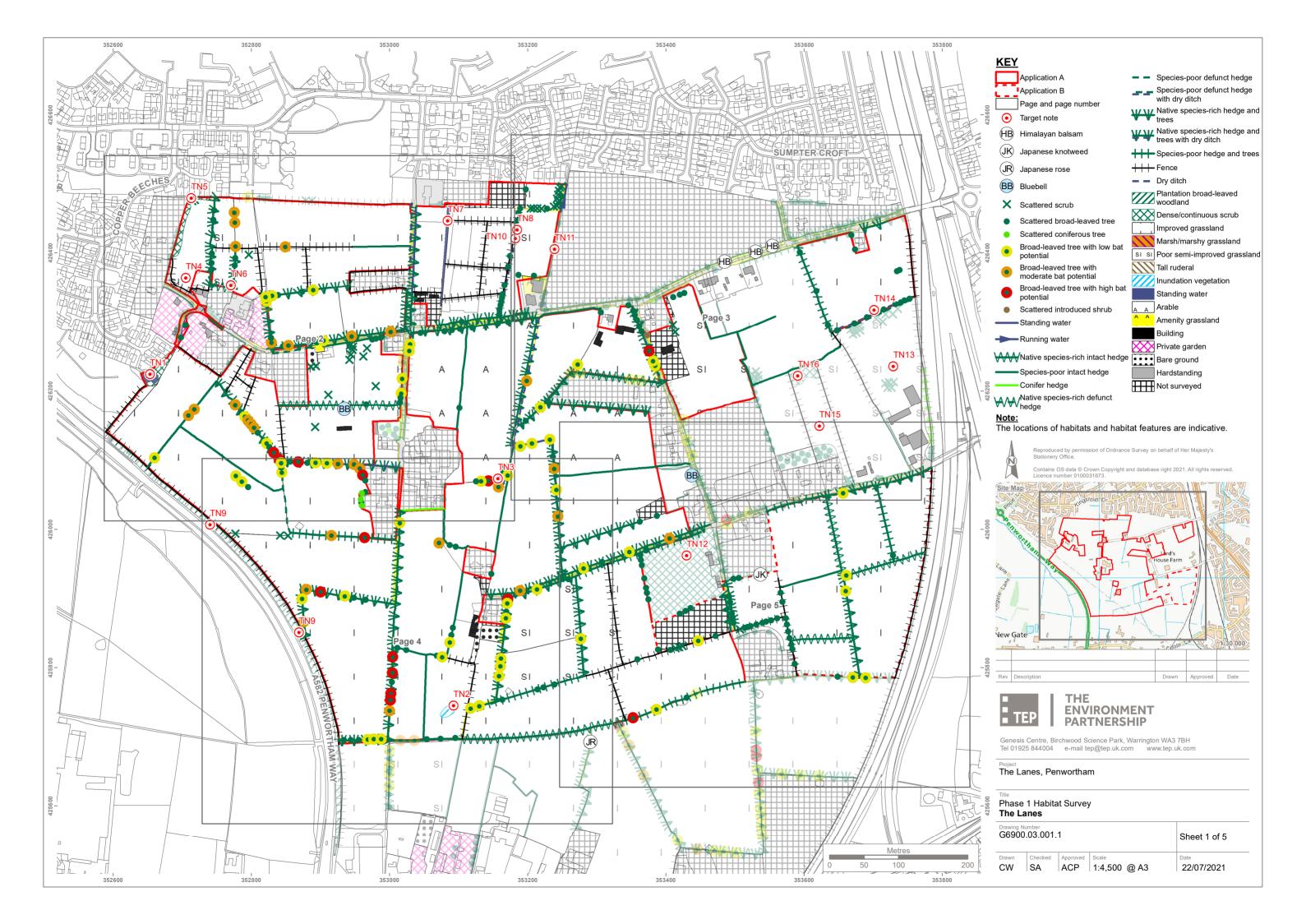
An area of dense/continuous scrub which was formerly a traditional orchard.

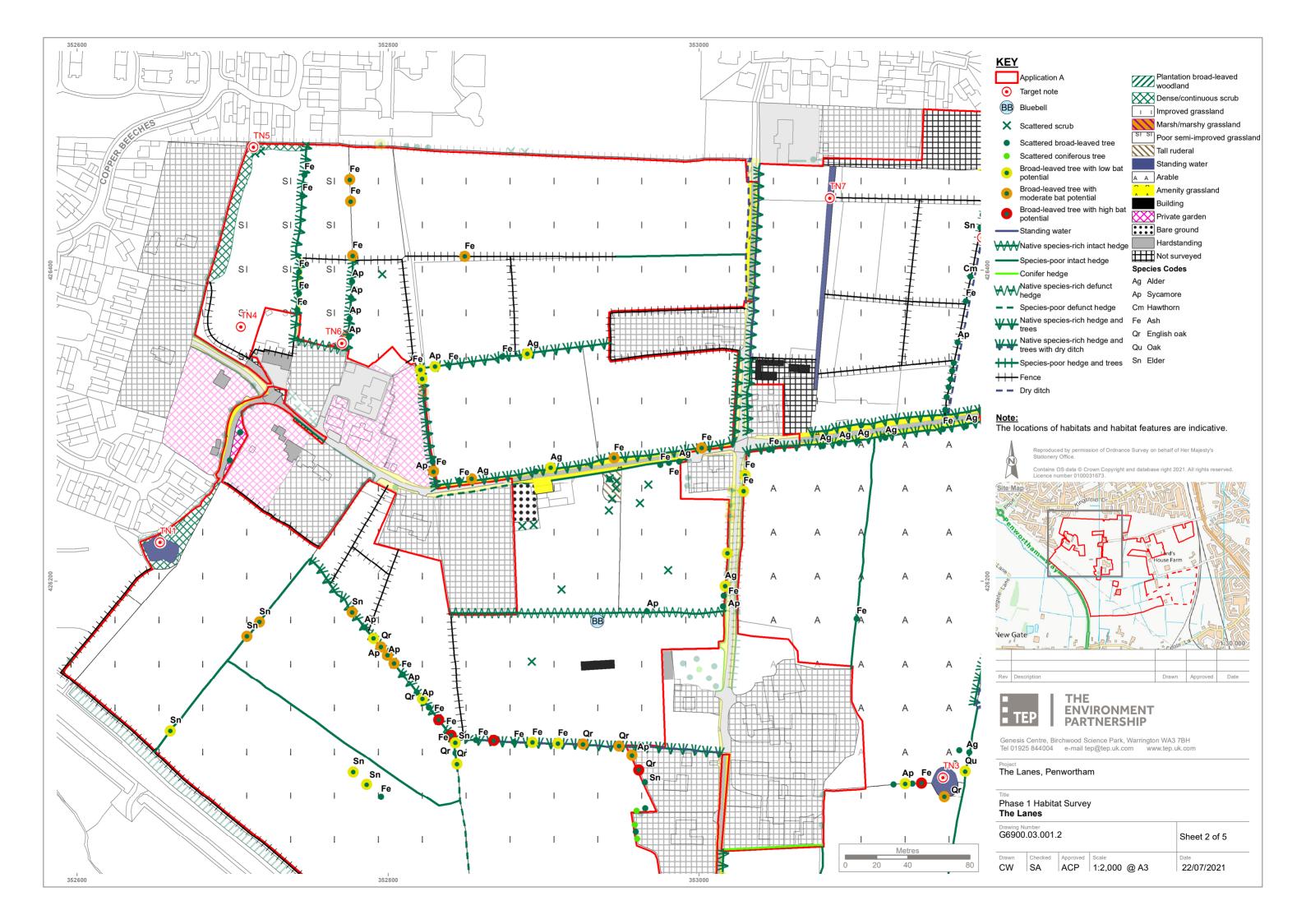
Rubus fruticosus agg.	Bramble	D
Malus domestica	Apple	0
Epilobium hirsutum	Great Willowherb	R
Crataegus monogyna	Hawthorn	R

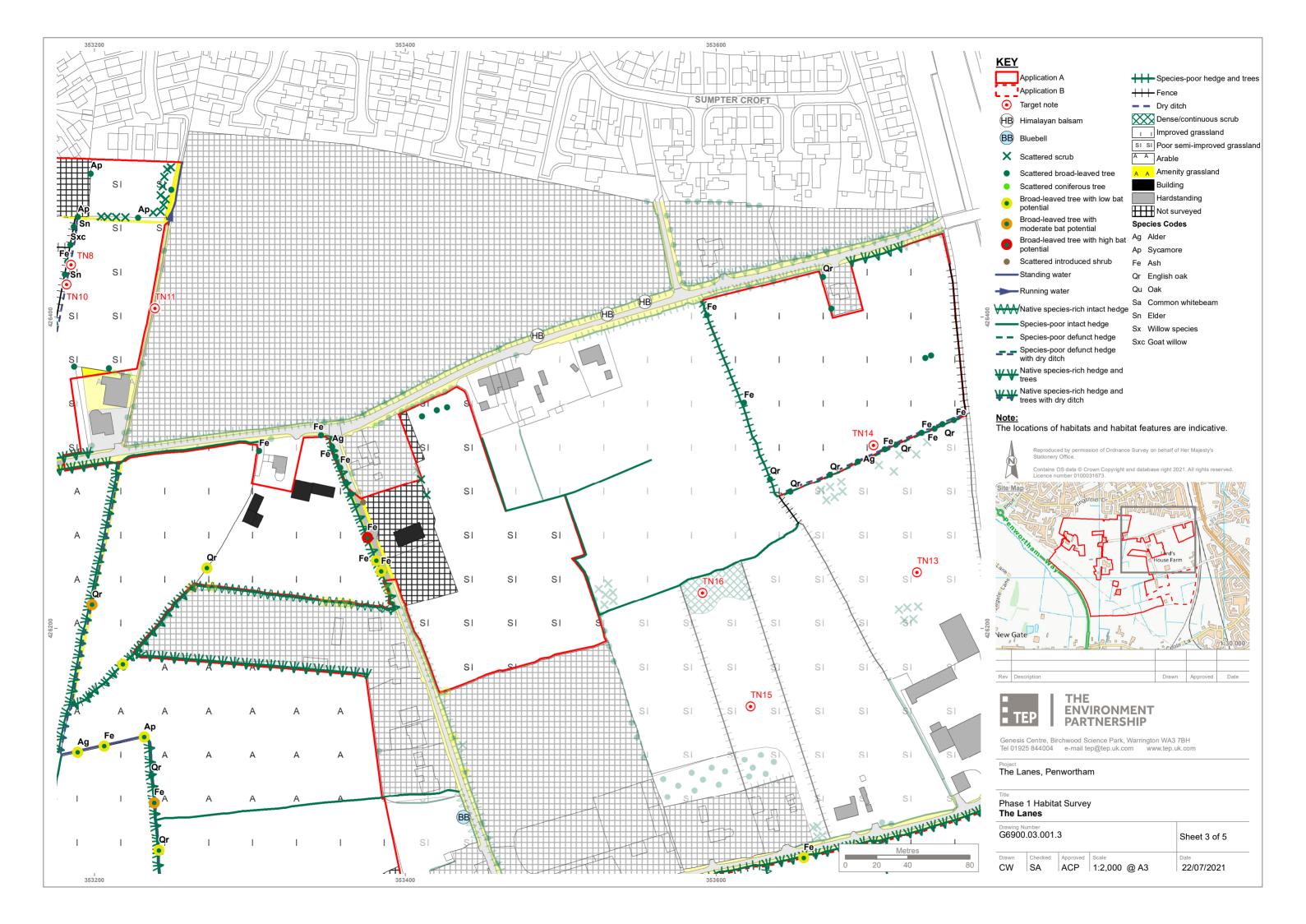


Drawing

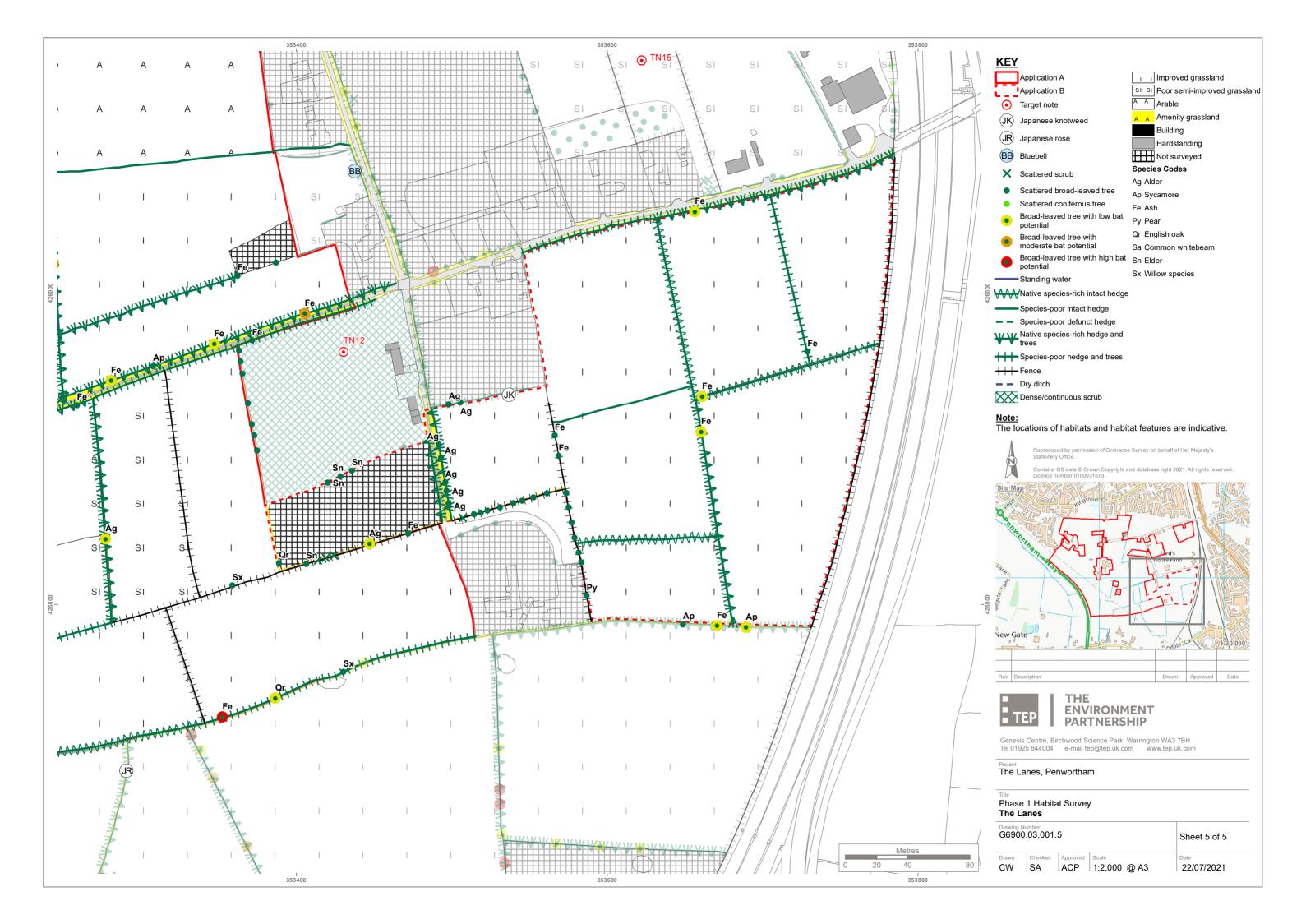
G6900.03.001 - Phase 1 Habitat Survey Map













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