

**Solihull Metropolitan Borough Council Additional Site Options
Ecological Assessment:**

East of Solihull

**Habitat Biodiversity Audit Partnership for Warwickshire, Coventry
and Solihull**

Warwickshire Wildlife Trust

Ecological Services Warwickshire County Council



December 2019



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EAST OF SOLIHULL

Area: 42.4 hectares

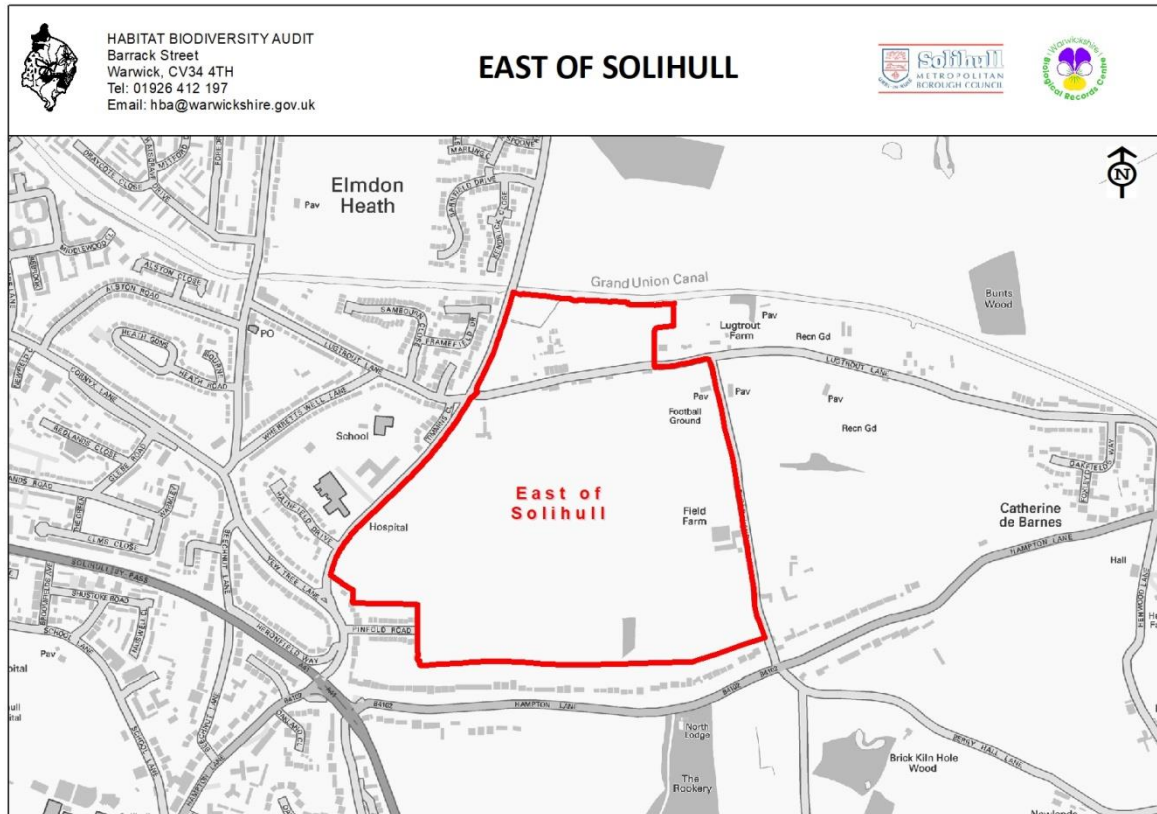


Figure 1 Site Location

Overview

The development parcel extends beyond Lugtrout Lane and becomes enclosed by the northern boundary mark of the Grand Union Canal with Coldlands Colts Boys Football Club denoting the north-east corner accessed via Field Lane, which marks the eastern boundary incorporating the farmstead of Field Farm. Further east, approximately 570m lie's the village of Catherine-de-Barnes. The western boundary is marked by Damson Parkway joining the suburb of Lode Heath. The southern boundary is enclosed by residential properties off Hampton Lane.

Key Features

- Veteran & Notable Trees
- Historic Canal & Woodland Bank of the Grand Union Canal
- Existing Green Infrastructure
- Semi-Natural Broad-Leaved Woodland
- Mature/Ancient and/or Historic Hedgerows

- Ecological Constraints Equate to 45.3% of the Total Area
- 3096m of hedgerow

Recommendations

It is preferential that the high number of veteran/notable trees be retained and form part of enhanced and extensive green infrastructure. These important features present across the open countryside are characteristic of the Arden landscape and as such any development proposals need to retain and enhance the nature of the historic landscape.

In this case, it is likely that these landscape assets or features could be affected and as such a Landscape and Visual Impact Assessment is recommended. In addition, a supplementary tree or arboriculture survey will help determine the height of tree and/or the spread of the tree's canopy so that adequate buffers can then be calculated.

A measurable target will be to retain all existing green infrastructure by a very sensitive "parcel by parcel" design strategy. The northern boundary of the development parcel is particularly sensitive where possible ancient woodland banks and veteran/notable trees form valuable habitat immediately adjacent to the Grand Union Canal. Therefore, strong buffers have been proposed.

Now degraded mosaics of previously good quality semi-natural habitats enclosed within the rejected LWS have been subject to further survey and those valuable areas have been included within the constraints map. The northern boundary sections of Pinfold Nursery should be protected as green infrastructure in themselves. This is to facilitate the principal goal to improving access to existing green infrastructure in the locality and to mitigate landscape impacts from proposed development. The impact on biodiversity will be greatly diminished by the retention of better-quality habitats already present and incorporating a high degree of green open space. Greater habitat connectivity will be achieved by the retention of the existing veteran trees and mature boundary features, preserving viable parcels of semi-natural habitats and additional planting of trees along boundaries. Landscape character may be maintained by saving viable plots of agricultural land to act as a gateway to the surrounding open countryside and retain the existing rural landscape.

As of the first edition of the OS Map dated at 1886, there is significant evidence to suggest that these hedgerows will require further investigation to determine their value both historically and ecologically. A datasearch request can be to the relevant authority (Warwickshire Record Office) to assess older maps for which a fee is collected. The length of the identified hedgerows total; 3096m for which they would need to be assessed and appropriate retention, mitigation and offsetting initiated.

Constraints

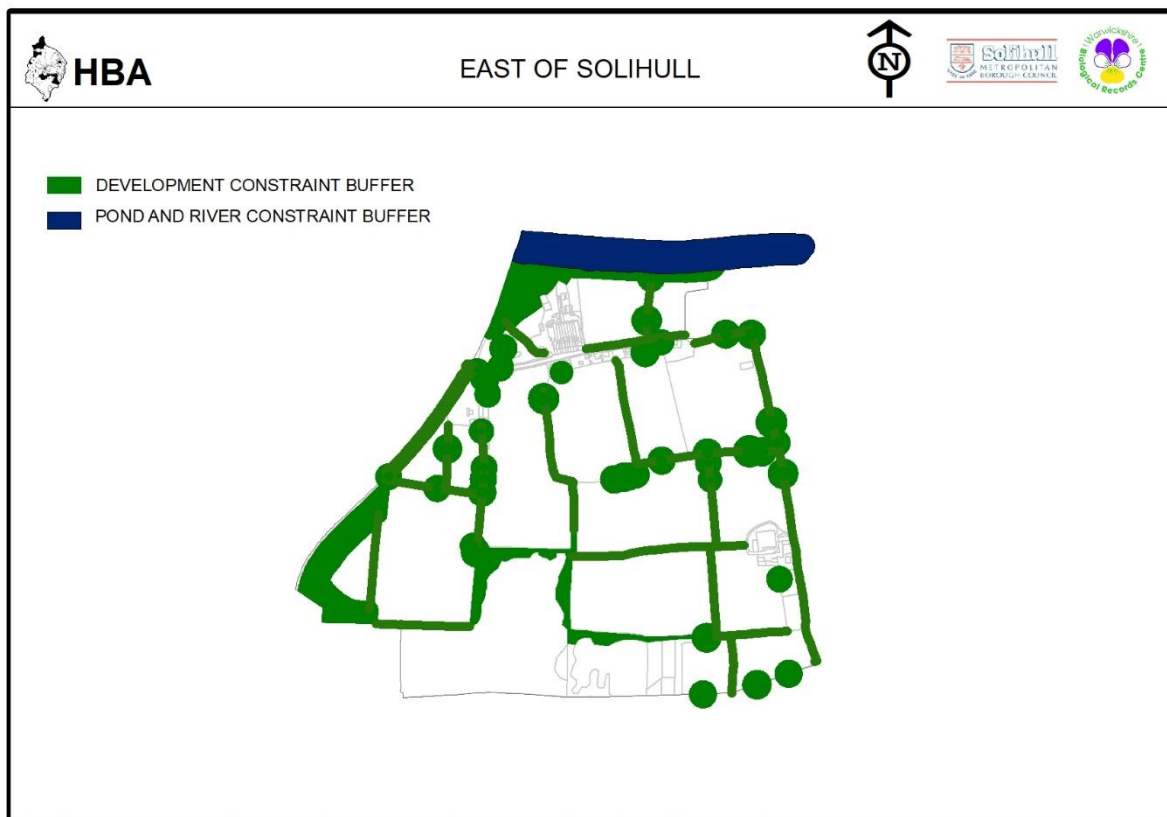


Figure 2 Constraints Map

The areas marked in green and blue on the above constraints map as a component of a very early and preliminary assessment represent existing biodiversity value and should ideally be retained and incorporated into any development proposals. They indicate where development should be avoided, and ecological enhancement encouraged. The maps show's a feasible case scenario with the aim to meet no net loss and the net gain approach. The green and blue areas at the absolute minimum highlight the need for further ecological investigation.

They include:

- 30m buffer around woodland
- 8m buffer either side of adjacent to watercourses
- 8m buffers around ponds
- 5m buffer either side of intact hedgerows
- Areas of medium to high distinctiveness grassland (Values 4, 5 & 6)

The circular green dots represent notable/veteran trees which should be retained and incorporated into green infrastructure. They are currently buffered by default at 15 metres as recommended by Natural England. A tree or arboriculture survey is recommended for the site to distinguish on such issues, determining height of tree and the spread of the tree's canopy so that adequate buffers

can then be calculated. The buffers are not exact but illustrative based on the extent of the canopy from aerial photography. You could buffer these trees either by 5m from the extent of the canopy, or by the length of the tree trunk or by a standard length being 15 to 30m depending on results from an arboriculture survey. If veteran trees are identified, a buffer of 30m would be recommended. The development parcel is characteristic of the Arden Landscape so woodland, hedgerows and notable/veteran trees are of the utmost importance. The existing woodland on the eastern boundary is buffered by 15 m because of the quality of the woodland and its relative age. Where aged woodland and notable/veteran trees accompanies a wide section of the canal, the buffers have been set at 30m and 20m respectively in accordance with guidance from SEPA (Scottish Environment Protection Agency) and SNH (Scottish Natural Heritage).

The hedgerows are buffered at 5 metres to coincide with the no net lost and biodiversity net gain approach, likewise these should remain and not be re-created forming part of any development as green infrastructure. Developing woodland surrounding the rejected Pinfold Nursery is not buffered as it can be incorporated to form useful buffers to development.

The riparian buffer should reflect stream size and the natural dimensions of the riparian zone. Minimum widths for either side of the stream/river/canal channel are:

- 5 m for streams <1 m wide
- 10 m for streams 1 – 2 m wide
- 20 m for streams >2 m wide.

Where the natural riparian zone exceeds these widths, the dimensions of the buffer area should be increased, up to twice the minimum recommended width.

Designated Sites

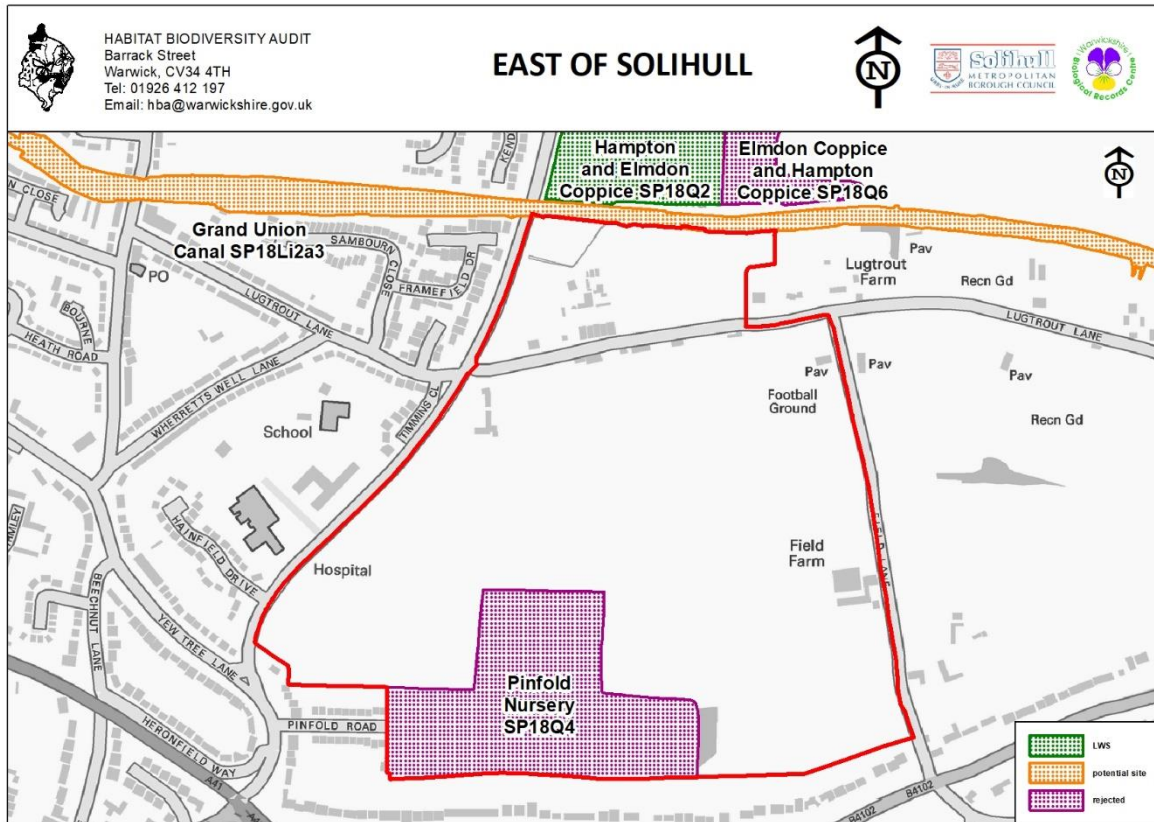


Figure 3 Site Designations

Local Wildlife Site

PINFOLD NURSERY¹ SP18Q4

Pinfold Nursery remains rejected as per site surveys on the 28/08/2019.

¹ Local Wildlife Sites Project – SP18Q4 Pinfold Nursery ---- HBA, Warwick

Habitat Description

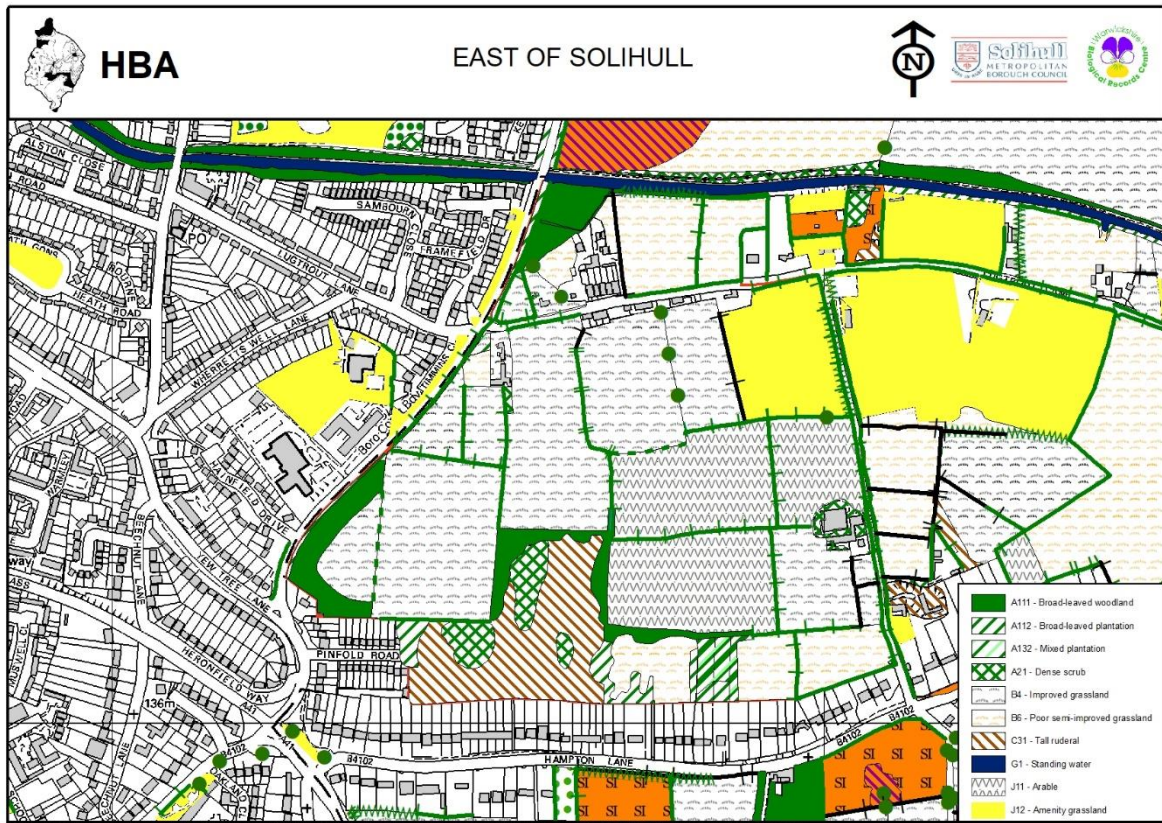


Figure 4 Phase 1 Habitats

Much of the development parcel remains rural with intensive farmland with 37.5% improved grassland (15.3 ha) and 19.4% (7.94 ha) of arable farmland. Better quality habitats include 6.6% or 2.7 ha of broad-leaved semi-natural woodland, 14.7% poor semi-improved grassland and more woody marginal habitats of 2.2% (0.9 ha) dense scrub and 1.4% or 0.6 ha of broad-leaved plantation. Playing pitches of Coldlands Colts Boys Football Club equates to 2.6 ha of amenity grassland.

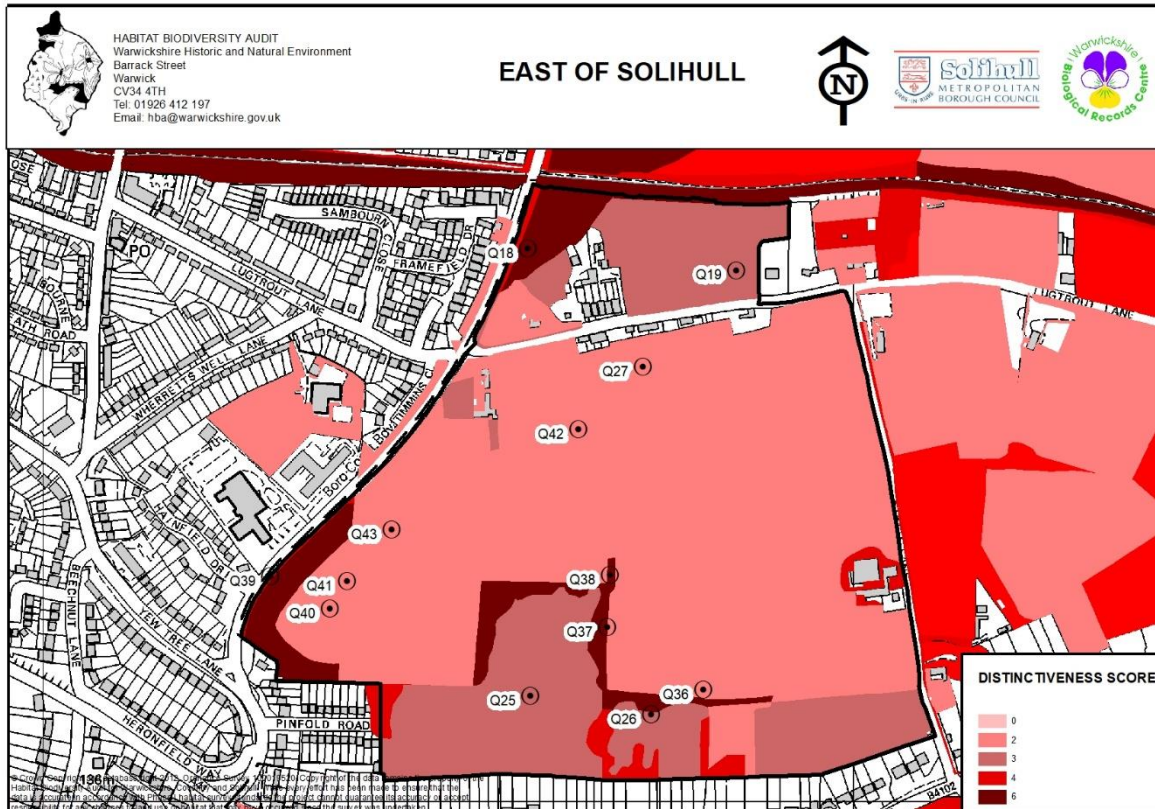


Figure 5 Habitat Distinctiveness & Target Notes

Highly distinct habitats important in relation to the conservation of biodiversity and development proposals are woodland and grassland habitats conserved within or adjacent to Berry Hall Wood pLWS (SP17U5) across Hampton Lane and neutral to poor semi-improved grasslands within Pinfold Nursery Rejected LWS (SP18Q4).

Target Notes

Number	Grid Reference	Survey Date
SP18Q18	SP1659780671	01/05/1998

Small triangular areas of grassland and young plantation part dominated by tufted hair-grass (*Deschampsia cespitosa*) and encroached by bramble (*Rubus fruticosus* agg.) in the south.

UPDATE GP 28/08/2019

Developing woodland immediately adjacent to the Italian alder (*Alnus cordata*), ash (*Fraxinus excelsior*), bird cherry (*Prunus padus*) in surrounding gardens/parkland with native field maple (*Acer campestre*), alder (*Alnus glutinosa*), a line of hazel (*Corylus avellana*), pedunculate oak (*Quercus robur*) and poplar (*Populus* spp.)

SP18Q25

SP1660080121

17/09/2010

Large rank area of grassland and scrub comprised of poor false oat-grass (*Arrhenatherum elatius*) with encroachment of bramble (*Rubus fruticosus* agg.), hawthorn (*Crataegus monogyna*) and cherry (*Prunus* spp.). A strong bird population exists including nesting skylark (*Alauda arvensis*).

UPDATE GP 28/08/2019

Mosaic of rank grassland overlain with scattered and continuous scrub of bramble (*Rubus fruticosus* agg.) with planted trees including fruit trees.

SP18Q26

SP1674980097

17/09/2010

Two small fields dominated by red fescue (*Festuca rubra*) and squirrel tail-fescue (*Rhytidiadelphus squarrosus*) with frequent field wood-rush (*Luzula campestris*), sweet vernal-grass (*Anthoxanthum odoratum*), hawkweed (*Hieracium* sp.), cat's ear (*Hypochaeris radicata*), dandelion (*Taraxacum officinale* agg.) common sorrel (*Rumex acetosa*), bulbous buttercup (*Ranunculus bulbosus*), ribwort plantain (*Plantago lanceolata*), common vetch (*Vicia sativa*) and some sheep's sorrel (*Rumex acetosella*).

UPDATE GP 28/08/2019

Mown grassland forming part of residential parkland with a mix of planted and native trees.

SP18Q27

SP1673980526

17/09/2010

Two heavily cattle grazed poor semi-improved grasslands dominated by perennial ryegrass (*Lolium perenne*), crested dog's-tail (*Cynosurus cristatus*) and sweet vernal-grass (*Anthoxanthum odoratum*) with abundant dandelion (*Taraxacum officinale* agg.), cat's-ear (*Hypochaeris radicata*), ribwort plantain (*Plantago lanceolata*), common bird's-foot-trefoil (*Lotus corniculatus*) and creeping buttercup (*Ranunculus repens*).

UPDATE GP 28/08/2019

Improved grasslands with high sward thatching periodically mown or grazed at the time of survey with dotted trees and fencing acting as the mid-line divide.

SP18Q36

SP1681380128

17/09/2010

Species-rich hedge including English elm (*Ulmus procera*), hawthorn (*Crataegus monogyna*), blackthorn (*Prunus spinosa*), elder (*Sambucus nigra*), holly (*Ilex aquifolium*), field maple (*Acer campestre*), hazel (*Corylus avellana*), ash (*Fraxinus excelsior*), dog rose (*Rosa canina*), bramble (*Rubus fruticosus* agg.) red oak (*Quercus rubra*), horse chestnut (*Aesculus hippocastanum*), sessile oak (*Quercus petraea*). Regenerating hedge at a height of 3m tall with a mix of well-established trees and newer replacements.

UPDATE GP 28/08/2019

Strip of woodland with scrub encroachment close to well-developed hedge.

SP18Q37

SP1669580205

17/09/2010

Veteran coppiced Sycamore found here with a number of old trees and a species rich hedgerow including hazel (*Corylus avellana*), sycamore (*Acer pseudoplatanus*), English elm (*Ulmus procera*), hawthorn (*Crataegus monogyna*), blackthorn (*Prunus spinosa*) and pedunculate oak (*Quercus robur*).

UPDATE GP 28/08/2019

The small woodland bordering Pinfold Nursery holds mature English elm (*Ulmus procera*), mature hawthorn (*Crataegus monogyna*) and mature holly (*Ilex aquifolium*) trees alongside ash (*Fraxinus excelsior*), bramble (*Rubus fruticosus* agg.) and common nettle (*Urtica dioica*).

SP18Q38

SP1669880269

17/09/2010

Potential veteran holly tree (*Ilex aquifolium*).

UPDATE GP 28/08/2019

Veteran holly trees form part of a possible ancient wood bank.

SP18Q39

SP1627980268

17/09/2010

Birch plantation (*Betula* spp.)

UPDATE GP 28/08/2019

Broad-leaved semi-natural woodland originally planted but of an even and considerable age to be identified under developing natural woodland with trees of silver birch (*Betula pendula*), pedunculate oak (*Quercus robur*), ash (*Fraxinus excelsior*), sycamore (*Acer pseudoplatanus*), common whitebeam (*Sorbus aria*), poplar (*Populus* spp.) and aspen (*P. tremula*) followed in the understorey by hawthorn (*Crataegus monogyna*) and holly (*Ilex aquifolium*) whilst bramble (*Rubus fruticosus* agg.), garlic mustard (*Alliaria petiolata*), wood-avens (*Geum urbanum*), herb-robert (*Geranium robertianum*) and common nettle (*Urtica dioica*) are found in the ground-layer.

SP18Q40

SP1635280235

28/08/2019

Improved grasslands comprise predominately of perennial rye-grass (*Lolium perenne*), Yorkshire-fog (*Holcus lanatus*), crested dog's-tail (*Cynosurus cristatus*), cock's-foot (*Dactylis glomerata*), red clover (*Trifolium pratense*), common mouse-ear (*Cerastium fontanum*), meadow buttercup (*Ranunculus acris*), creeping buttercup (*R. repens*),

ribwort plantain (*Plantago lanceolata*), creeping thistle (*Cirsium arvense*), spear thistle (*C. vulgare*) and common sorrel (*Rumex acetosa*).

SP18Q41

SP1637180273

28/08/2019

Hedgerow gappy in parts consists of English elm (*Ulmus procera*) and hawthorn (*Crataegus monogyna*) with occasional dog-rose (*Rosa canina*) and bramble (*Rubus fruticosus* agg.) with well-aged elm trees which are ideal for retention and enhancement.

SP18Q42

SP1665880456

28/08/2019

Remnant ancient hedgerow bank of holly (*Ilex aquifolium*), hazel (*Corylus avellana*), hawthorn (*Crataegus monogyna*), English elm (*Ulmus procera*) and elder (*Sambucus nigra*) with field-rose (*Rosa arvensis*) and pedunculate oak standard (*Quercus robur*).

SP18Q43

SP1665880456

28/08/2019

Well-aged pedunculate oak (*Quercus robur*) will hawthorn (*Crataegus mongyna*), elder (*Sambucus nigra*) and dog-rose (*Rosa canina*) with creeping bent (*Agrostis stolonifera*).

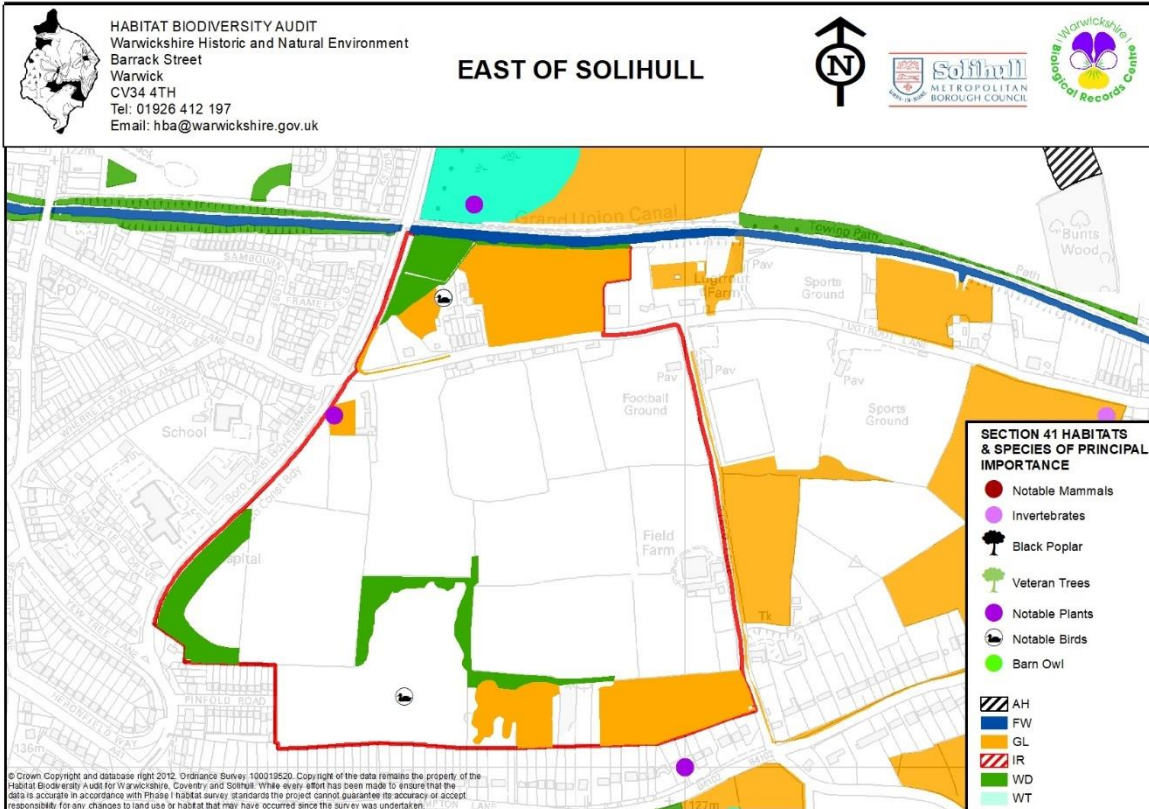


Figure Section 41 Habitats and Species of Principal Importance

Habitat Connectivity

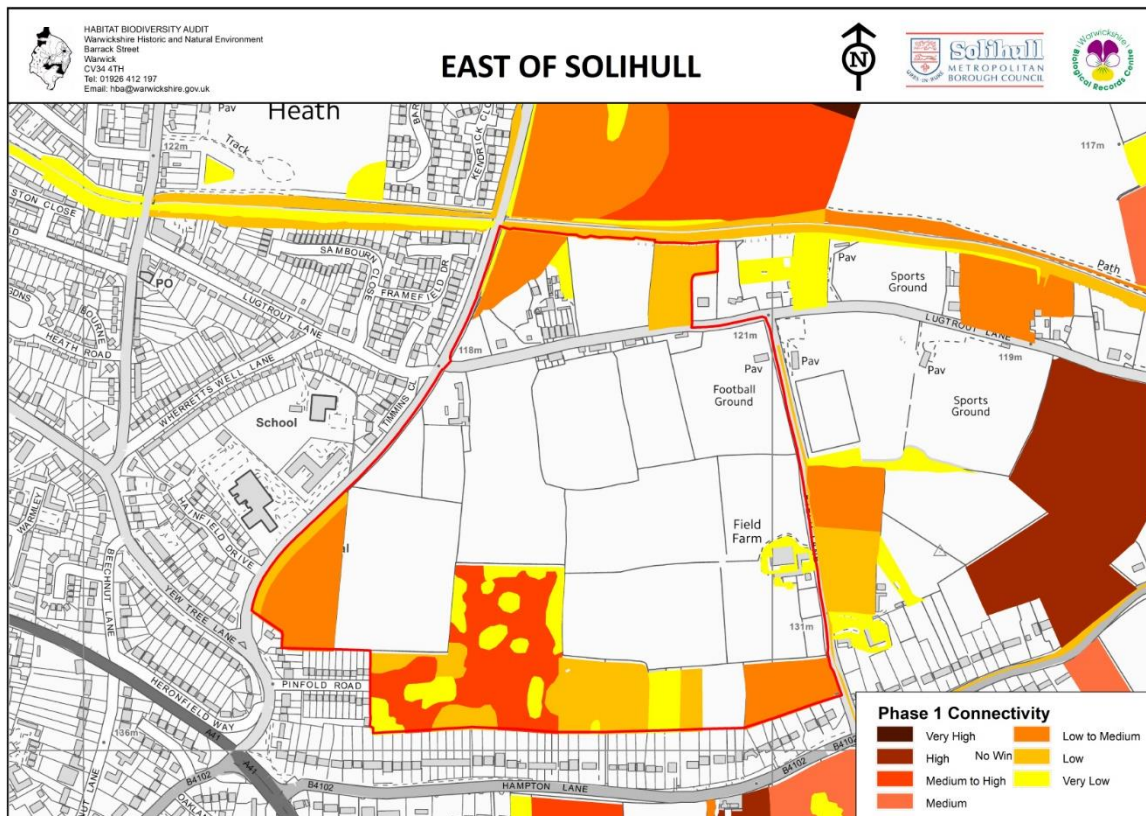


Figure 2 Habitat Connectivity

Habitat connectivity surrounding the development parcel is very strong particularly to the north, east and south. The western block is bounded by residential development of Elmdon and Lode Heath and consequently occupies low habitat connectivity.

The southern extent of the development parcel holds medium connectivity for neutral and poor semi-improved grasslands, woodlands and scrub and as such should be retained and enhanced. The deterioration of grassland within the parcel due to over-grazing, conversion to arable farmland or by neglect and succession to scrub does decrease the connectivity values of grasslands.

Protected Species

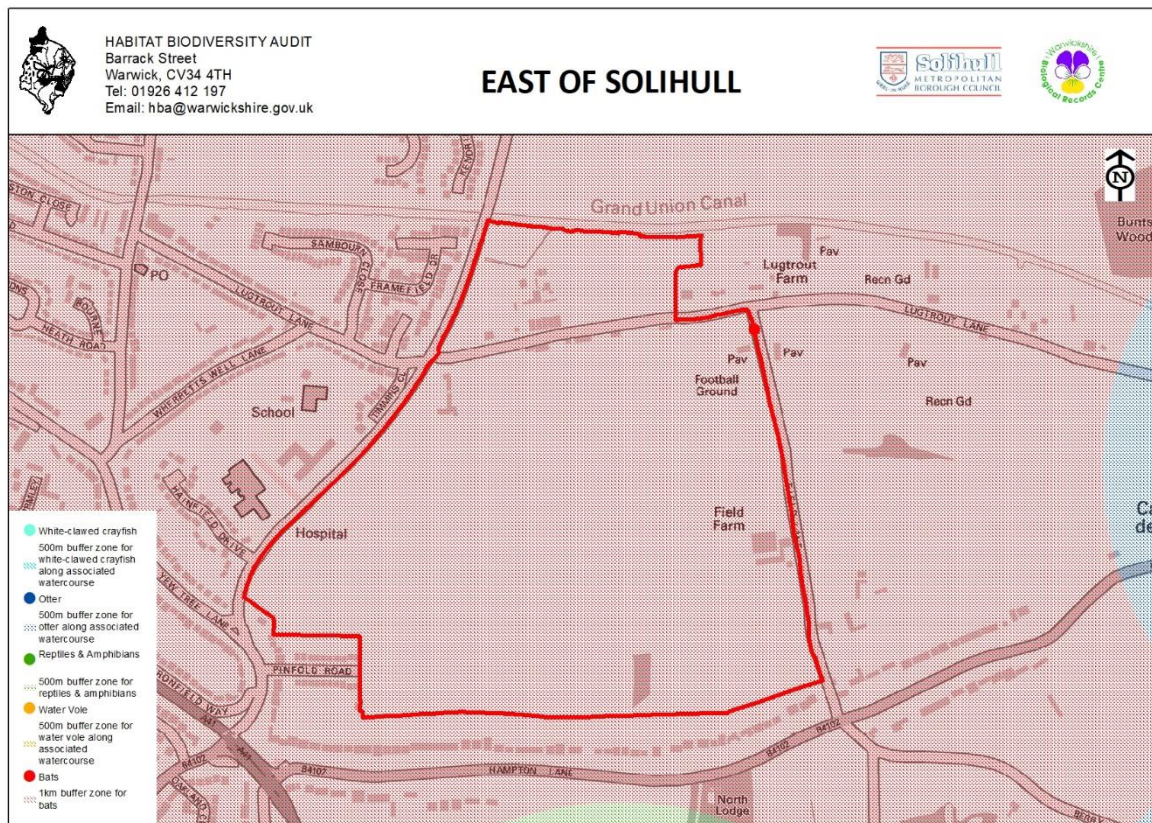


Figure 8 Protected Species

Modern and valid records exist for a pipistrelle bat species (*Pipistrellus* sp.) in 2015 on Field Lane in the upmost north-eastern corner of the development parcel within Hampton Football Club.

We recommend that protected species are taken into consideration through more detailed ecological assessments. Please take note that an absence of species records does not mean an absence of species. It is highly likely that otter (*Lutra Lutra*) inhabit the Grand Union Canal due to widespread increases in species distribution, the Grand Union Canal along with the supporting mature wood bank provides perfect habitat for this species and as such any proposals should ensure a large habitat buffer zone accommodates provision for this species. Woodland habitats can be improved for otter by increasing the amount of connected woodland along watercourses, encouraging long-term presence of a shrub layer through intervention, and by maintaining the current low level of disturbance.