

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

Land South of School Road

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

Warwickshire Wildlife Trust

Ecological Services Warwickshire County Council



December 2019



Contents

LAND OF SCHOOL ROAD	3
Overview	3
Key Features	3
Recommendations	4
Constraints	6
Designated Sites	8
Habitat Description	9
Target Notes	10
Habitats and Species of Conservation Importance	12
Historical Landscape	13
Habitat Connectivity	14
Protected Species	15

- School Road Marsh Potential LWS (SP17L5)
- Stratford-On-Avon Canal
- Ecological Constraints Equate to 61.1% of the Total Area

Recommendations

The development parcel which immediately abounds the Stratford-On-Avon Canal is dominated by remnant woodland banks with veteran and/or notable trees. The continued wooded character of the development parcel is typical of the Arden landscape and as such every attempt should be made to retain this character.

Consequently, development should take place with the curtilage of the site and encompass its existing features including the wooded banks, liner woodland, hedgerows with trees and the wooded edge of the Stratford-On-Avon Canal. The presence of the canal edge and associated wooded banks increases the need for larger buffers and more effective screening on the southern periphery.

In addition, the grassland parcel in the south-east corner contains semi-improved neutral grassland which could seasonally flood and given the nature of the prevalent species composition would be ideal to preserve to safeguard the consequences of development and provide flood alleviation to the adjacent Stratford-On-Avon Canal. The grassland parcel is worthy of designation as a potential LWS and should be subject to a full LWS survey and is currently named as School Road Marsh (SP17L5).

The 1.2 hectares of remnant broad-leaved semi-natural woodland, unchanged since the first edition of the OS Map (1881-1890) shows a continued woodland presence for a substantial period-of-time and given high biodiversity value and rarity of ancient semi-natural woodland represented, it is the upmost important that these compartments are retained and buffered in any development proposals and thus protected from the effects of development.

The retention and establishment of lines of veteran and/or notable trees and woodland blocks will allow sustained connectivity within the wider landscape particularly those semi-natural habitats along the Stratford-On-Avon Canal pLWS (SP16Li1T) and Spring Coppice pLWS (SP17L3). This lasting provision will provide important habitat for woodland birds (Stagoll et al. 2010) and improve the connectivity and function of the surrounding fragmented plots of woodland, scrub and hedgerow.

Retaining existing mature trees with development proposals will demonstrate the protection of the local setting and will create significant aesthetic and physical amenity and help maintain biodiversity. Unless wooded areas are not incorporated as public space, then the use of passive management techniques such as fencing to prevent impacts of edge effects and encroachment activities should be instigated. Encroachment activities range from waste disposal, woodland recreation, garden extension and garden plant invasion. They should not be implemented into private gardens.

The priority to preserve veteran and/or notable trees and remnant woodland blocks in the first instance would only require sensitive development proposals avoiding these areas of high value with the added benefit of instant green infrastructure. Otherwise, an independent Arboriculture Impact Assessment would be required to assess size, age, species and value to British Standard 5837:2005. Furthermore, to determine root protection zones.

Trees within the development parcel that are subject to a Tree Preservation Order (TPO; Town and Country Planning Act 1990), require consent from the local planning authority before such protected trees are cut down, topped or lopped. A survey by the Tree Protection Officer in relation to potential TPO's is also recommended.

Constraints

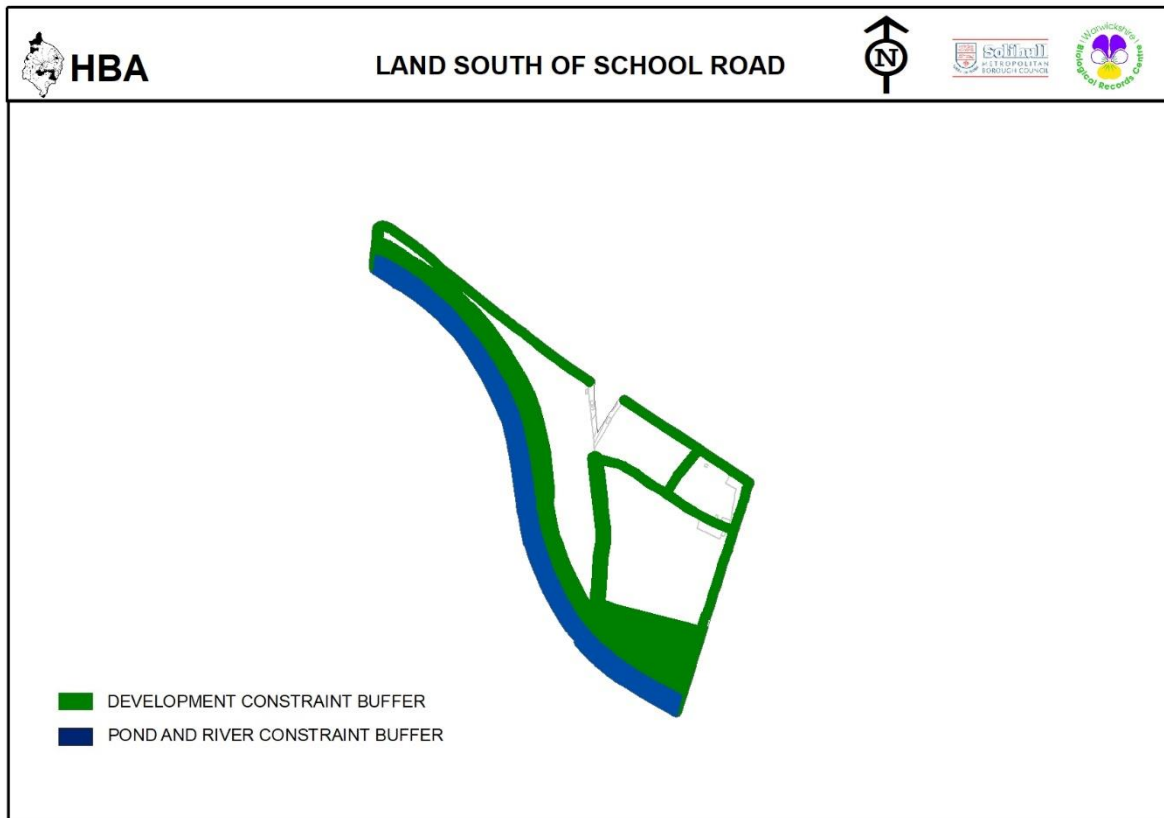


Figure 2 Constraints Map

The areas marked in green and blue on the above constraints map indicate where development should be avoided and ecological enhancement encouraged.

They include:

- 30m buffer around woodland
- 20m buffer around a wide section of canal
- 8m buffer either side of adjacent to watercourses
- 8m buffers around ponds
- 5m buffer either side of intact hedgerows
- Medium to high distinctiveness habitats (Values 4, 5 & 6)

Ecological constraints relate to 61.1% of the development parcel.

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 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:

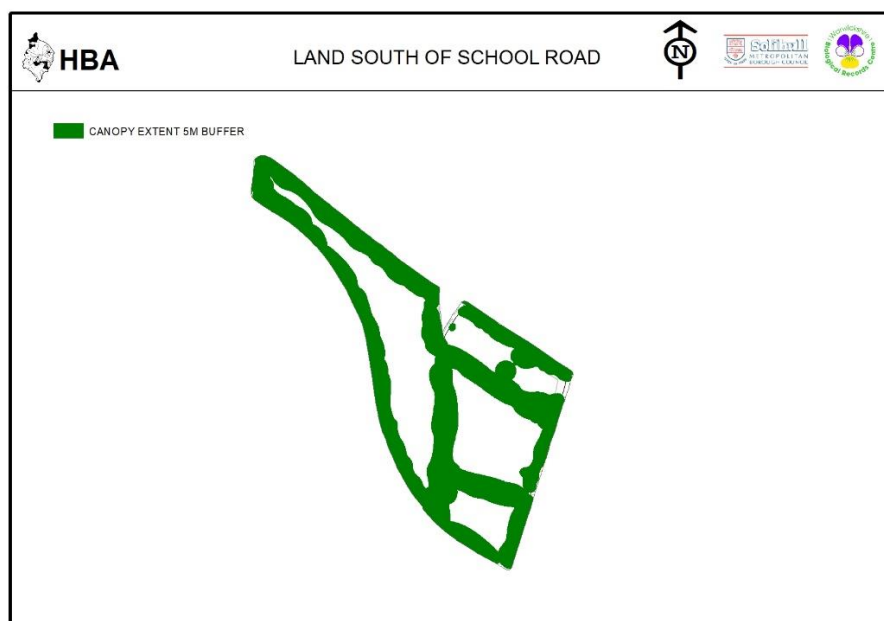
- 5 m for streams <1 m wide
- 10 m for streams 1 – 2 m wide
- 20 m for streams >2 m wide.

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

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.

The woodland banks and blocks have not been buffered to 30m given the assumption that they can be incorporated as green infrastructure with any development proposals. Notable and veteran trees within wooded belts should be buffered by default at 15m 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. 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 map below illustrates the tree canopy extent across the development parcel as identified from aerial photography with the necessary 5m buffer as recommended by Natural England.



Designated Sites

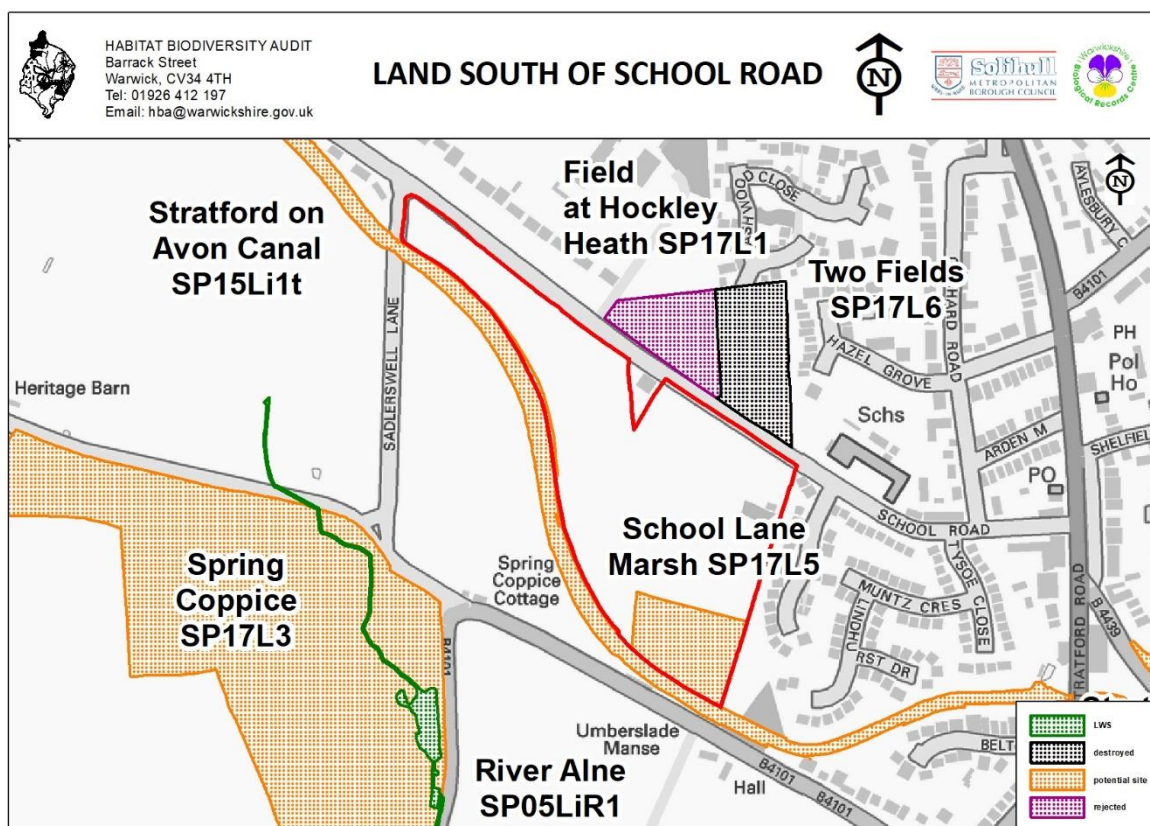


Figure 3 Designated Sites

The development parcel directly borders the potential LWS of the Grand Union Canal and encompasses School Road Marsh potential LWS. No designated LWS's occur within the parcel but both Stratford-on Avon Canal (SP16Li1T) and School Road Marsh (SP17L5) should be subject to a full LWS survey to fully determine their wildlife and biodiversity value.

LWS NAME	STATUS	AREA (HA)	SURVEY DATE
STRATFORD-ON-AVON CANAL (SP16Li1T)	Potential LWS	49.02	01/10/1997
SCHOOL ROAD MARSH (SP17L5)	Potential LWS	0.72	20/08/2019
SPRING COPPICE (SP17L3)	Potential LWS	11.28	01/10/1997
FIELD AT HOCKLEY HEATH (SP17L1)	Rejected LWS	0.65	15/08/2002
TWO FIELDS (SP17L6)	Destroyed	0.88	01/10/1997

Habitat Description

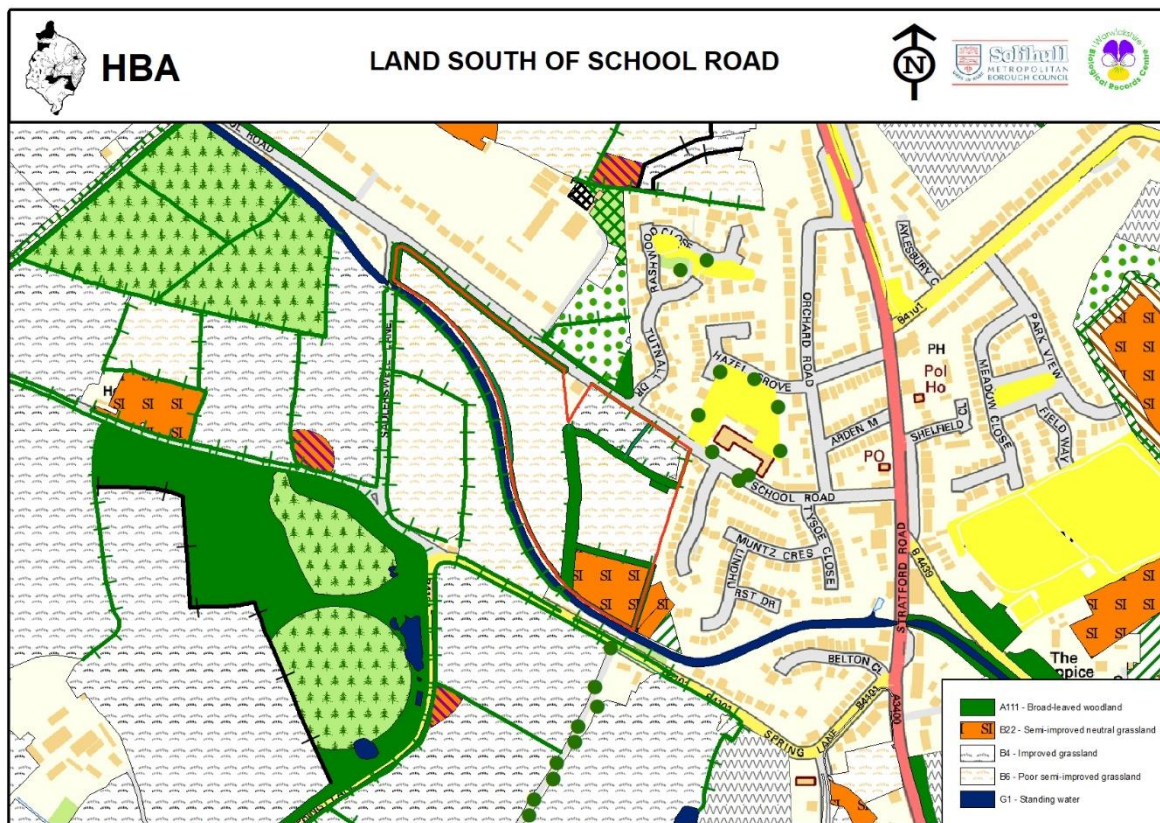


Figure 4 Phase 1 Habitats

The development parcel currently comprises a variety of mixed-structured grassland with horse-grazed improved grassland (B4, low value) to the north-east with larger parcels comprising poor semi-improved grassland (B6, medium value) and semi-improved neutral grassland (high value) of the most south-eastern parcel. The central eastern parcel has been left un-managed for a period and consequently has turned rank dominated by common and coarse grasses. The triangular parcel dominating the west of the parcel was short in length at the time of survey, but the presence of marginal remnant rank grasses indicated it had recently been cut short by machinery. The furthestmost south-eastern parcel comprises of semi-improved neutral grassland surrounded on the canal side by some scattered blackthorn (*Prunus spinosa*) scrub and is dominated by the patch forming tufted hair-grass (*Descampsia cespitosa*), which is indicative of increased water retention and/or seasonal flooding in addition to dominate great burnet (*Sanguisorba officinalis*) within the sward, devil's-bit scabious (*Succisa pratensis*) is also indicative of better-quality habitat.

The development parcel is criss-crossed by a mosaic of broad-leaved semi-natural woodland (A111) represented as ancient woodland banks, remnant blocks of mature woodland and veteran and/or notable trees. Almost all boundaries occupy mature trees of a valuable age.

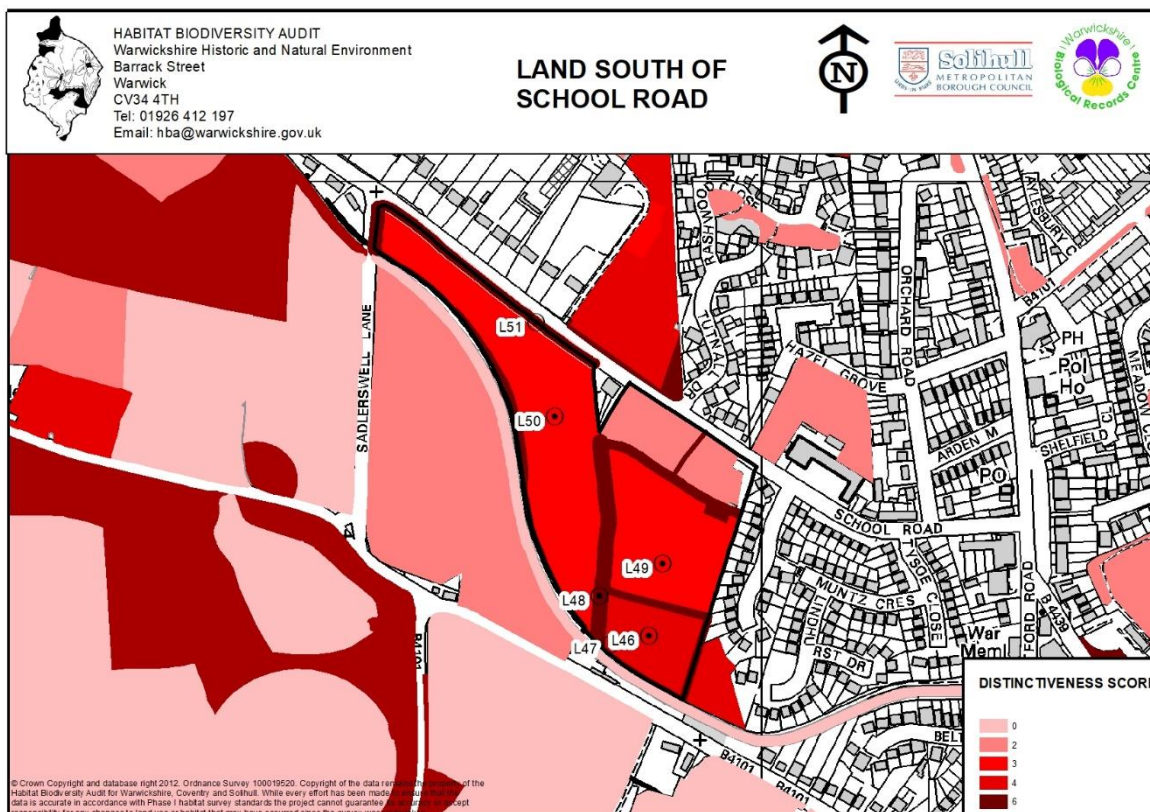


Figure 5 Habitat Distinctiveness & Target Notes

Highly distinct habitats include the semi-natural broad-leaved woodland (A111) which mark the periphery of field parcels and the standing water (G1) of the Stratford-On-Avon Canal alongside semi-improved neutral grassland (B22) and less distinct, poor semi-improved grassland (B6).

Target Notes

Number	Grid Reference	Survey Date
SP17L46	SP1488772551	20/08/2019

Small grassland parcel dominated by tufted hair-grass (*Deschampsia cespitosa*) and forbs of great burnet (*Sanguisorba officinalis*). Scrub species of rosebay willowherb (*Chamerion angustifolium*), bramble (*Rubus fruticosus* agg), hazel (*Corylus avellana*), silver birch (*Betula pendula*), pedunculate oak (*Quercus robur*), goat willow (*Salix caprea*), ash (*Fraxinus excelsior*) and dog-rose (*Rosa canina*) mark the periphery. Within the grassland sward additional grass species include sweet vernal-grass (*Anthriscus odoratum*), common bent (*Agrotis capillaris*), red fescue (*Festuca rubra*) and Yorkshire-fog (*Holcus lanatus*) with forbs of perforate St John's-wort (*Hypericum perforatum*), greater bird's-foot trefoil (*Lotus pedunculatus*), ribwort plantain (*Plantago lanceolata*), devil's bit scabious (*Succisa pratensis*), common knapweed (*Centaurea nigra*), creeping cinquefoil (*Potentilla reptans*), lesser stichwort (*Stellaria graminea*), tormentil (*Potentilla erecta*), marsh thistle (*Cirsium palustris*) and common sorrel (*Rumex acetosa*)

SP17L47

SP1485072542

20/08/2019

Scrub of aged hawthorn (*Crataegus monogyna*) and blackthorn (*Prunus spinosa*) which merges with remnant woodland of the Stratford -On Avon Canal with hedge woundwort (*Stachys sylvatica*), holly (*Ilex aquifolium*), crab apple (*Malus sylvestris*), hawthorn (*Crataegus monogyna*), common figwort (*Scrophularia nodosa*), hazel (*Corylus avellana*), elder (*Sambucus nigra*), bramble (*Rubus fruticosus* agg.), broad-leaved dock (*Rumex obtusifolius*), ash (*Fraxinus excelsior*) and saplings of silver birch (*Betula pendula*).

SP17L48

SP1483572588

20/08/2019

Central wooded channel identified as remnant woodland with pedunculate oak (*Quercus robur*), ash (*Fraxinus excelsior*), holly (*Ilex aquifolium*) and horse chestnut (*Aesculus hippocastanum*) with planted aspen (*Populus tremula*).

SP17L49

SP1489772620

20/08/2019

Rank grassland dominated by grasses of tufted hair-grass (*Deschampsia cespitosa*), false oat-grass (*Arrhenatherum elatius*), red fescue (*Festuca rubra*), cock's-foot (*Dactylis glomerata*), sweet vernal-grass (*Anthoxanthum odoratum*), perennial rye-grass (*Lolium perenne*) and timothy (*Phleum pratense*) with forbs of common knapweed (*Centaurea nigra*), common bird's-foot-trefoil (*Lotus corniculatus*), meadow crane's-bill (*Geranium pratense*), creeping buttercup (*Ranunculus repens*), ribwort plantain (*Plantago lanceolata*), tufted vetch (*Vicia cracca*), selfheal (*Prunella vulgaris*), marsh thistle (*Cirsium palustris*), meadow buttercup (*Ranunculus acris*), rare common ragwort (*Senecio jacobaea*) and rare dandelion (*Taraxacum officinale* agg.).

SP17L50

SP1479172770

20/08/2019

Recently cut poor semi-improved grassland represented by redshank (*Persicaria maculosa*), common cudweed (*Filago vulgaris*), scented mayweed (*Matricaria recutita*) and common knapweed (*Centaurea nigra*) with the alien cockspur (*Echinochloa crus-galli*).

SP17L51

SP1477272858

20/08/2019

Remnant woodland banks with wood sage (*Teucrium scorodonia*), hazel (*Corylus avellana*), holly (*Ilex aquifolium*), hawthorn (*Crataegus monogyna*), broom (*Cytisus scoparius*), gorse (*Ulex europaeus*), a hawkweed (*Hieracium* spp.), bracken (*Pteridium aquilinum*) and bramble (*Rubus fruticosus* agg.).

Habitats and Species of Conservation Importance

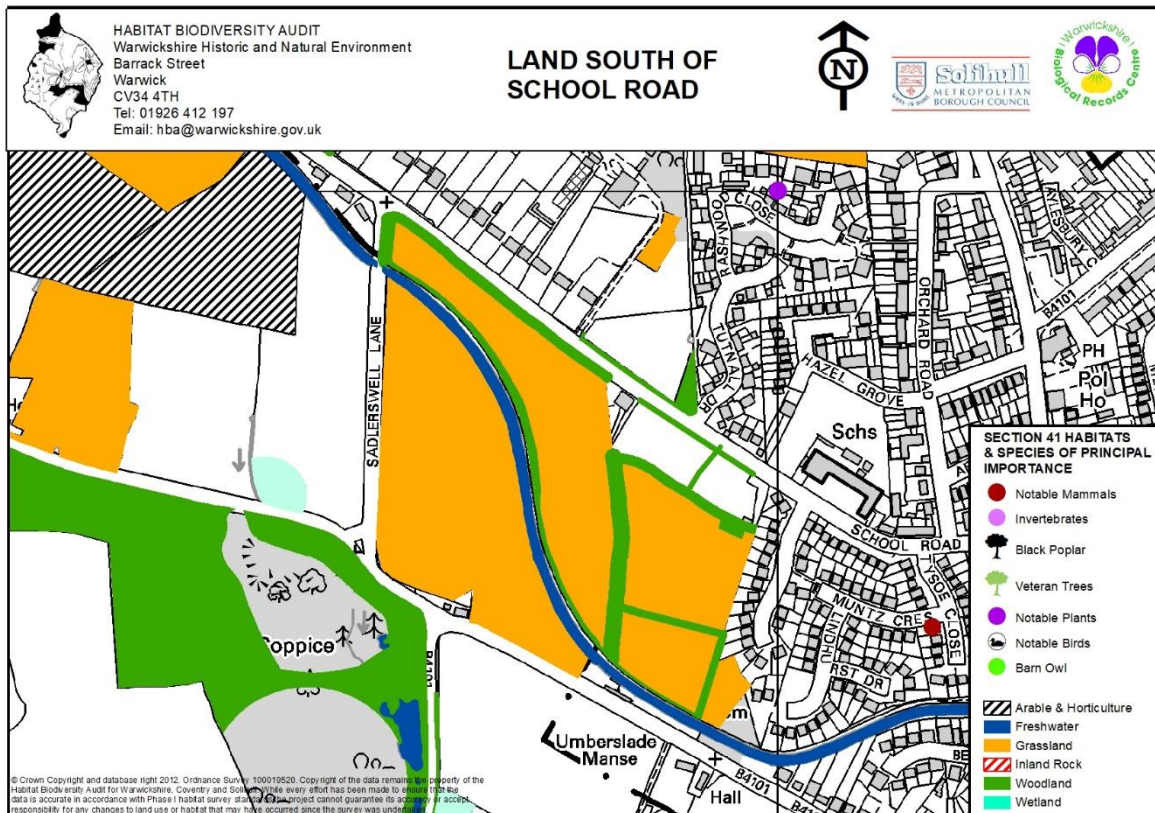
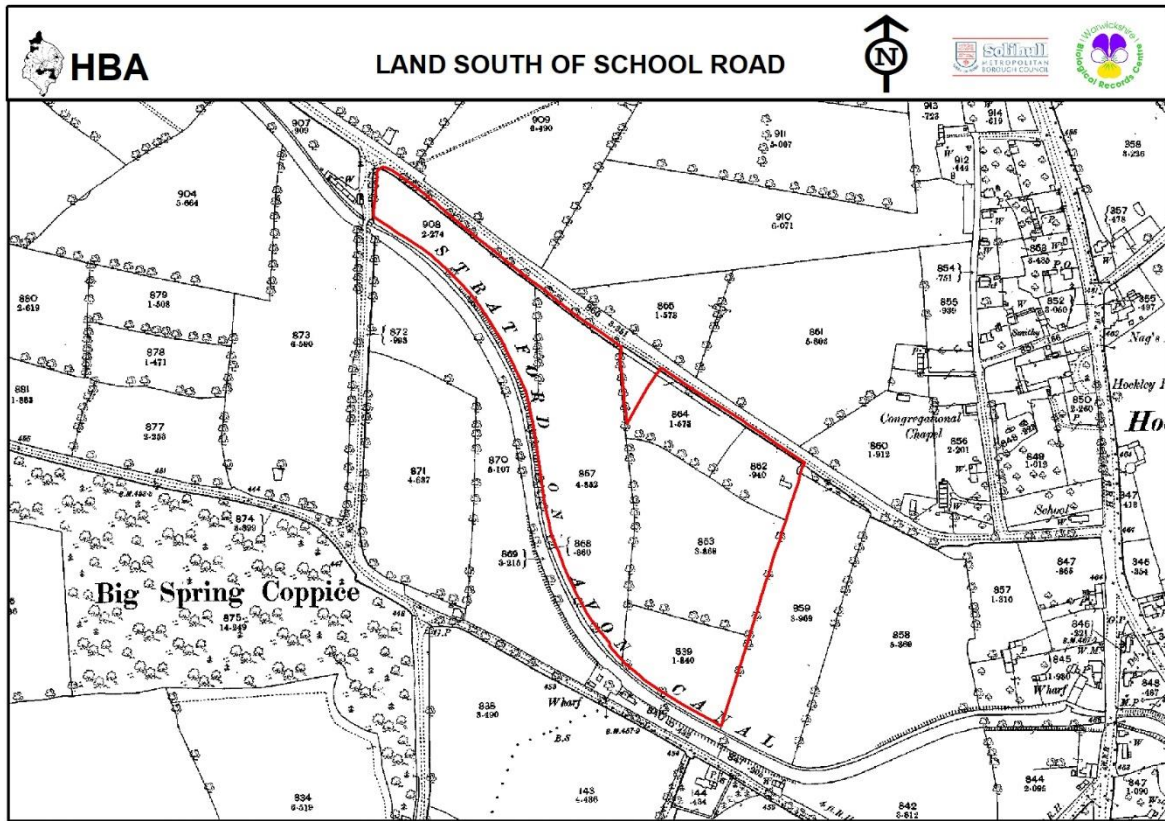


Figure 6 Section 41 Habitats and Species of Conservation Importance

Historical Landscape



The first edition of the OS Map (1881-1890) shows the presence of continued woodland cover for a substantial period-of-time and given high biodiversity value and rarity of ancient semi-natural woodland represented, it is the utmost important that these compartments are retained and buffered in any development proposals and thus protected from the effects of development.

Habitat Connectivity

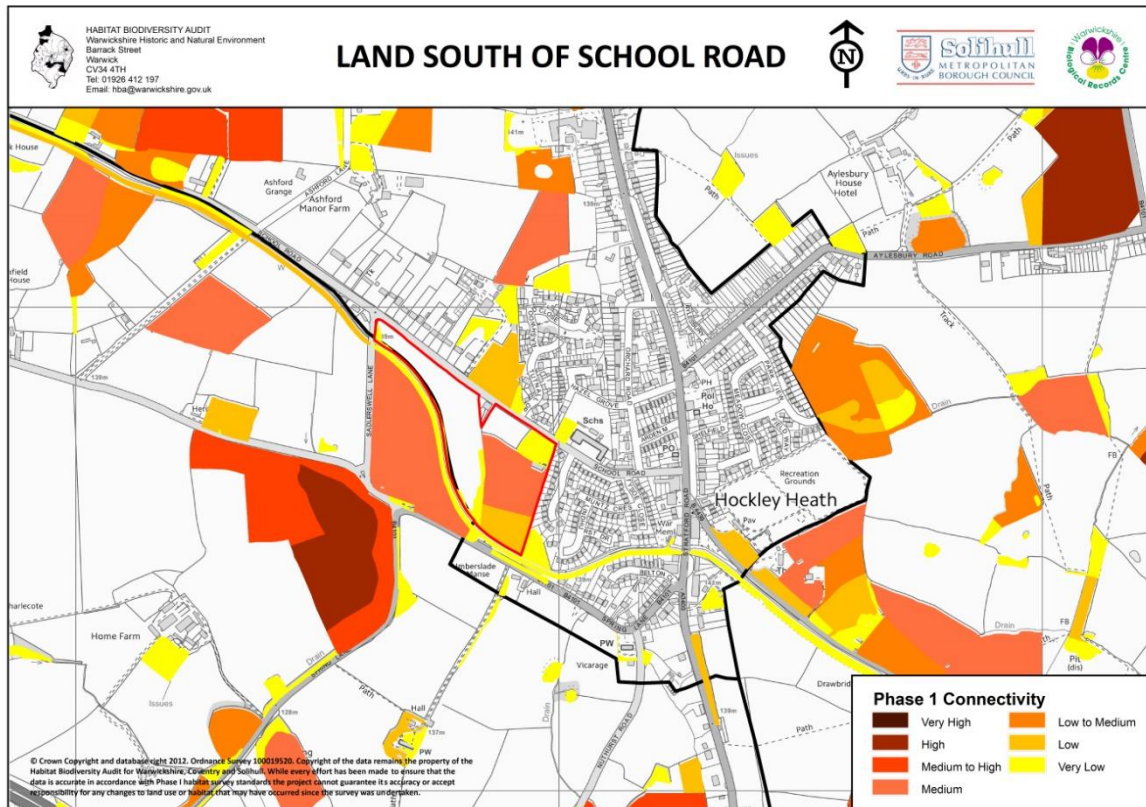


Figure 7 Habitat Connectivity

Grassland habitats range from low to medium connectivity becoming isolated by residential zones of Hockley Heath to the east. The Stratford-On-Avon Canal forms an important corridor which should be maintained and enhanced. Connectivity can be encouraged to the west and south-west especially.

Woodland connectivity is extremely high in the general region of the Stratford-On-Avon Canal and to the west and south of Hockley Heath.

Protected Species

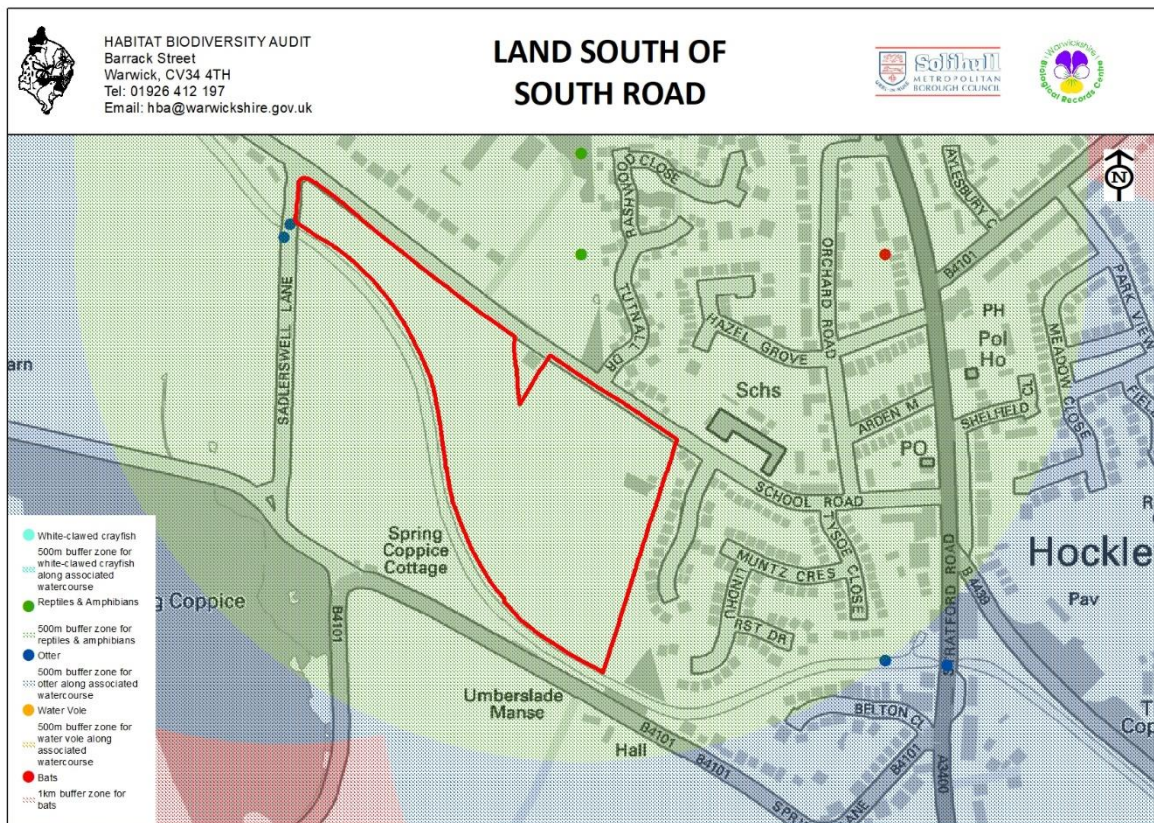


Figure 8 Protected Species

There are no protected or notable species records located within the site boundaries. However, it was noted at the time of survey as part of ecological preparatory works for assumed future development, bat and reptile surveys were taking place. This will increase the scope of this section by providing up-to-date and valid records for protected species. We recommend that protected species are taken into consideration through these more detailed ecological assessments.

It is highly likely that otter (*Lutra lutra*) use and possible breed within or close to the development parcel given the proximity of species records recorded on the Stratford-On-Avon Canal. As such works, immediately adjacent to the canal should consider otter and soft-engineering works to provide valuable habitat provision for this species.

Please take note that an absence of species records does not mean an absence of species.