

Appendix 9.1

Ecological Appraisal



Hallam Land Management Ltd

Great Wilsey Park, Haverhill, Suffolk

Ecological Appraisal

APPENDIX 9.1

August 2015

FPCR Environment and Design Ltd

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1.0 INTRODUCTION

- 1.1 The following report has been prepared by FPCR Environment and Design Ltd on behalf of Hallam Land Ltd. It provides details of an Extended Phase 1 Habitat Survey and summary of protected species surveys initially undertaken in 2014 but later updated in 2015, on land at Great Wilsey Farm, Haverhill, Suffolk (central OS grid reference TL 689461).
- 1.2 The site, defined by the red line boundary provided on Figure 2, is 168.34ha. The report has been provided to inform a planning application for a residential development which would include infrastructure, public and community space with retail, health and education facilities.
- 1.3 The site is located within an arable landscape, on the north-eastern outskirts of Haverhill and can be accessed via a number of access points from the A143 to the north-west, Chalkstone Way at the south and Sturmer Road, Kedington to the east. Arable land continues northwards beyond the site with roads, residential housing and gardens to the south and east. The site can be accessed via a network of public footpaths that crisscross the site.
- 1.4 The site is dominated by arable and pasture fields with species-rich field margins and hedgerows. Mixed and broad-leaved plantation woodland blocks are present as well as areas of new and established tree planting. Small copses and tree lines are present at field boundaries. The majority of the hedgerows were considered to be of nature conservation importance and the field margins comprised semi-improved neutral grassland. Two ponds and a network of dry ditches are present within the site boundary, with a wet but not flowing watercourse set within a strip of woodland, running from north west to south east across the site.
- 1.5 No buildings or structures are present, however Great Wilsey Farm as a number of buildings, including barns and storage sheds which are immediately adjacent to the site boundary. New residential housing and a school is present to the south and west.
- 1.6 The aims of the study were to:
- Identify, describe and assess the value of any sensitive ecological receptors at the site and the immediate surrounding area;
 - Identify potential ecological impacts of the development and suggest appropriate constraints, outline baseline mitigation and enhancement measures;
 - Identify any legal and policy implications of any anticipated ecological impacts;
 - Make recommendations for any necessary further survey work or licensing, as required.
- 1.7 Ecological information for the assessment was provided by an extended phase 1 habitat survey, study of ordnance survey maps and online tools for identifying protected wildlife sites.
- 1.8 Due to the habitats present on site and within the immediate vicinity, a number of protected species surveys have been undertaken. These include bats, great crested newt *Triturus cristatus*, water vole *Arvicola amphibius*, reptiles, badgers *Meles meles*, birds and hazel

dormouse *Muscardinus avellanarius*. Separate reports have been produced detailing results of these with exception of water vole which is discussed within this document.

2.0 METHODOLOGY

Desk Study

- 2.1 In order to compile existing baseline information, relevant ecological information was requested from both statutory and non-statutory nature conservation organisations including:
- Multi Agency Geographic Information for the Countryside (MAGIC) website (www.magic.defra.gov.uk);
 - Suffolk Biological Records Centre
- 2.2 Further inspection, using colour 1:25,000 OS base maps (www.ordnancesurvey.co.uk) and aerial photographs from Google Earth (www.maps.google.co.uk) was also undertaken in order to provide additional context and identify any features of potential importance for nature conservation in the wider countryside.
- 2.3 The search area for biodiversity information was related to the significance of sites and species and potential zones of influence, as follows:
- 15km around the site for sites of International Importance (e.g. Special Area of Conservation (SAC), Special Protection Area (SPA), Ramsar site)
 - 2km around the site for sites of National or Regional Importance (e.g. Sites of Special Scientific Interest (SSSI) and Local Nature Reserves (LNR))
 - 1km around the application site for sites of County Importance (e.g. Sites of Importance for Nature Conservation (SINC) / Local Wildlife Sites (LWS) and species records (e.g.: protected, Species of Principal Importance as listed on Schedule 41 of the NERC Act [2006]¹ or other notable species).

Flora

- 2.4 The survey technique adopted for the habitat assessment of site followed the extended Phase 1 survey technique as recommended by Natural England². This comprised a walkover of the site mapping and broadly describing the principal habitat types and identifying the dominant plant species present within each habitat type. Although species lists are not exhaustive, sufficient information was gained to determine broad habitat types and identify features of interest. The habitats are mapped on Figure 2 Phase 1 Habitat Plan.

Hedgerows

- 2.5 Hedgerows were surveyed individually using the Hedgerow Evaluation and Grading System (HEGS)³ to enable identification and evaluation of important hedgerows within the

¹ The Natural Environment and Rural Communities Act 2006. [Online]. Available from: <http://www.legislation.gov.uk/ukpga/2006/16/contents> [Accessed 11/11/2013]

² JNCC (2010) *Handbook for Phase 1 habitat survey - a technique for environmental audit*. Peterborough

³ Clements, D. & Toft, R. (1992). *Hedgerow Evaluation and Grading System (HEGS) – a methodology for the ecological survey, evaluation and grading of hedgerows*. Countryside Planning and Management

survey area. Each hedgerow was assigned a grade based on the results, as indicated below. Grades above 2 are classed as being of nature conservation priority.

- 1 = high to very high value,
- 2 = moderate high to high value,
- 3= moderate value,
- 4= low value.

- 2.6 Hedgerows were also assessed under the wildlife and landscape criteria of the Hedgerow Regulations 1997⁴, to identify any hedgerows, which would be classified as “important” for nature conservation under this part of the act. Under this methodology, hedgerows are considered according to the average number of woody species per 100m of hedgerow. Additional features which enhance hedgerows, when found in association with the hedge, such as mature trees, ditches and hedge banks are also considered.
- 2.7 It should be noted that hedgerows may also qualify as Important under the Archaeological criteria of this Act, which is beyond the scope of this assessment.

Fauna

- 2.8 During the survey of the site, observations, signs of or suitable habitat for any species protected under Part 1 of the Wildlife and Countryside Act 1981 (as amended), the Conservation of Habitats and Species Regulations 2010 (as amended)⁵ and the Protection of Badgers Act 1992⁶ were noted with particular attention being given to the potential presence of bats, reptiles, great crested newt, hazel dormouse and badger. Consideration was also given to the existence and use of the site by other notable fauna such as Local Biodiversity Action Plan (LBAP), Red Data Book (RDB) species, BoCC red & amber listed bird species and Species of Principal Importance under the NERC Act, 2006.

Water Vole

- 2.9 Water vole surveys were carried during August 2014. The survey followed the standard methodology described in the Water Vole Handbook⁸. This involved identification of water vole activity within the survey areas, using field evidence such as:
- **Faeces** - these are 8 - 12mm long and 4 - 5 mm wide, cylindrical with blunt ends. The colour is variable, though often green, and they are generally odourless or have a faint musky smell.
 - **Latrines** - the majority of droppings are deposited at latrine sites, used to mark range boundaries, favoured spots close to nests and where they leave and enter water. Latrines often consist of a flattened mass of old droppings topped with fresh ones.

⁴ *The Hedgerow Regulations 1997 – Statutory Instrument 1997 No. 1160*. [Online]. London: HMSO. Available from: <http://www.legislation.gov.uk/ukxi/1997/1160/contents/made> [Accessed 11/11/2013].

⁵ *The Conservation of Habitats and Species Regulations* (as amended 2012). [Online]. Available from: <http://www.legislation.gov.uk/ukxi/2010/490/contents/made> [Accessed 11/11/2013]

⁶ *The Protection of Badgers Act 1992 (as amended)*. London: HMSO [Online]. Available from: <http://www.legislation.gov.uk/ukpga/1992/51/contents> [Accessed 03/05/2013].

⁸ *Strachan, Moorhouse & Gelling (2011) Water Vole Conservation Handbook 3rd Edition*. WildCRU, Oxford.

- **Feeding stations** - water voles often bring pieces of cut vegetation to favoured feeding stations close to the water's edge and leave remains in neat piles. The cut vegetation is typically 100mm long and is cut at a perfect 45° angle.
- **Burrows** - many burrows can be found in riverbanks, but those constructed by water voles are typically wider than they are high, with a diameter of 4 - 8cm. The holes are generally closer to the water's edge than those made by other species. Around these holes, well-grazed 'lawns' can often be found, where the water voles have chewed the vegetation short.
- **Footprints** – identifiable prints in soft margins of the watercourse
- **Runways** – low tunnels that are pushed through the vegetation often leading to burrows or feeding stations.

Constraints

- 2.10 Any ecology assessment must be considered as a 'snapshot' of the site conditions at the time of the survey; not all botanical species or communities would have been evident during the survey. Notwithstanding this, given the agriculturally managed nature of the site, the findings of the survey are considered to provide an appropriate assessment of the site's ecological value. Ecological constraints will change over time and therefore the findings of this report are considered to be valid for a period of one year after the last survey, after which the survey should be repeated to ensure the baseline conditions have not changed.

3.0 RESULTS

Desk Study

Statutory Sites

- 3.1 The Multi-Agency Geographic Information for the Countryside (MAGIC) website indicates that no internationally designated sites are located within 15km of the site boundary and no nationally designated site within 2km of the site boundary. One locally designated site lies within 1km, details of this site can be found below and within Table 2.
- 3.2 Haverhill Railway Walks, Local Nature Reserve, located approximately 492m from the site boundary, is designated as an LNR for its ecological importance as a wildlife corridor. The habitat supports a range of flora and fauna.

Non-Statutory Sites

- 3.3 There are four Wildlife Sites, known in Suffolk as County Wildlife Sites (CWS) within 1km of the site boundary. These comprise Haverhill Disused Railway Line, Annes Suckling's Way, Broad Street Old Allotments and Norney Plantation. Details of these sites are presented in Table 2 below.

Table 2. Details of Statutorily Designated Sites within 5km of the Site Boundary.

Site Name	Designation	Approximate Location	Size (ha)	Reasons for Designation
Haverhill Railway Walks	LNR	492m south	15.09	The disused railway provides a valuable wildlife corridor, with scrub and larger trees. It offers food and shelter to a wide range of birds, animals, insects and plants.
Haverhill Disused Railway Line	CWS	492m south	13.58	A disused railway line running NW to SE through Haverhill, it provides a valuable link between other important reptile sites in the town. For most of its length the railway walk comprises areas of dense species-rich, native scrub with patches of unimproved grassland, supporting a variety of flowering plants and is particularly important for reptiles and breeding birds.
Anne Suckling's Way	CWS	729m north-west	0.3	A footpath and bridleway comprising species-rich grassland and hedgerows habitats. The site provides a routeway for wildlife and is an important conservation area in an otherwise intensively farmed landscape.

Broad Street Old Allotments	CWS	760m west	0.34	A disused allotment situated immediately to the south of the disused railway line. The site is particularly important for the reptile populations which it supports, in particular a medium sized population of slow-worm. A variety of deciduous trees, a mosaic of unmanaged grassland, scrub and closely mown paths provide habitat for breeding birds, odonata and small mammals.
Norney Plantation	CWS / Ancient Woodland	990m north-west	8.82	Ancient semi-natural woodland. A large proportion of the wood has been planted with sycamore. In addition, some planting of ash and oak has taken place in recent years. The ground flora is dominated by dog's-mercury and nettle. The wood is reported to have had a large starling roost in it for a number of years.

Fauna

3.4 Records of protected and notable species were returned by Suffolk Biological Records Centre. The locations of these records are illustrated on Figure 1 Consultation Results Plan.

- Five records of bats were received; with one confirmed Pipistrelle roost located near Hamlet Croft in 2009, this is approximately 950m south of the Application Site. An unknown *Pipistrelle sp.* and a Soprano Pipistrelle *Pipistrellus pygmaeus* were recorded approximately 1.37km north of the site these were in flights when recorded in 2010. Two unidentified bats were recorded between 970/980m north of the site near Little Wratting, these were recorded in 2000 & 2003. An injured brown long-ear *Plecotus auritus* was recorded within a garden in 2012, 278m south west of the site.
- Five records of common lizard *Zootoca vivipara* were recorded, four were within or near Haverhill Railway Walks LNR/Haverhill Disused Railway CWS these ranged between 270m to 957m from the site; the fifth record was recorded within a 1km square to the west of the site within the residential estate. Three slow-worm *Anguis fragilis* and one grass snake *Natrix natrix* were also recorded in the same areas as above. The above records were dated between 2003 and 2006.
- There was only one record of water voles within a 1km radius of the site, this occurred approximately 500m south east within a water course at Haverhill Golf Club; here latrines, burrows and footprints were identified. There were further records of water voles exist in the wider area, within a ditch 1.5km south of site running along A1017 in 2003, there was also records within the River Stour 1.5km north east in 2008 this was accompanied by an otter *Lutra lutra* record in 2008.

- Records of the assemblages of arable, woodland edge and wetland birds were returned from within 1km of the site boundary. Birds associated with arable landscapes, wetland and woodland included grey partridge *Perdix perdix*, corn bunting *Miliaria calandra*, lapwing *Vanellus vanellus*, turtle dove *Streptopelia turtur*, barn owl *Tyto alba* and kingfisher *Alcedo atthis*. None of these records came from within the site boundary.

- 3.5 Correspondence with Simone Bullion of Suffolk Wildlife Trust has highlighted the potential presence of dormouse within habitats in the wider area. Recent informal records include a dormouse nest which was found within some bramble near to Haverhill disused railway and a potential dormouse handed into a veterinary clinic within Haverhill.

Habitats

Arable

- 3.6 Land used for crop production dominates the site, with a few of the fields left for pasture. The fields with crops were well maintained with neutral grassland margins ranging in size from 4-7m, on both sides of the hedgerow boundaries. Some boundaries devoid of a hedgerow were denoted by the grassland margin and open ditch. The arable crops were open, featureless compartments and all were either recently harvested or ploughed at the time of survey.
- 3.7 Signs within field compartments to the east of Great Wilsey Farm displayed 'Wildlife Conservation Area'. The desk study results did not provide any non-statutorily protected sites within this area and therefore it is assumed it is part of the farm's country-side stewardship scheme.

Improved Grassland Pasture

- 3.8 Few fields were left uncultivated were dominated with species typical of improved grassland habitats. Dominant grass species included; Yorkshire fog *Holcus lanatus* and perennial rye-grass *Lolium perenne* with forbs including ribwort plantain *Plantago lanceolata* and creeping buttercup *Ranunculus repens*.

Field Margins

- 3.9 The field margins supported species typical of semi-improved neutral grassland. A mix of grasses was recorded with a range of herbaceous species common within such neutral environments. Field margins at the north and eastern extents of the site were identified as being species rich, the majority of which were within the area marked as a 'Wildlife Conservation Area'. The field margins appeared to be regularly cut.
- 3.10 The sward comprised a mix of grasses however the most frequently recorded included Yorkshire fog *Holcus lanatus*, cock's-foot *Dactylis glomerata*, creeping bent *Agrostis capillaris*, false oat-grass *Arrhenatherum elatius*, Timothy *Phelum pratense*, meadow foxtail *Alopecurus pratensis*, red fescue *Festuca rubra* agg, meadow fescue *Festuca pratensis*, soft brome *Bromus hordeacous*, sweet vernal grass *Anthoxanthum oderatum* with occasional wild oat *Avena fatuna*, meadow oat-grass *Avenula pratensis*, black grass *Alopecurus myosuroides* and barren brome *Bromus sterilis*. Sedge species were also

recorded within the margins to the north and east of Great Wilsey Farm including glaucous sedge *Carex flacca* and spring sedge *Carex caryophylla*.

- 3.11 Frequently recorded herbaceous species included red clover *Trifolium pratense*, white clover *Trifolium repens*, black knapweed *Centurea nigra*, ribwort plantain, common ragwort *Senecio jacobea*, creeping buttercup, tufted vetch *Vicia cracea*, hop trefoil *Trifolium campestre*, dove's-foot crane's-bill *Geranium molle*, smooth tare *Vicia tetrasperma*, rough hawk's-beard *Crepis biennis*, field bind weed *Convolvulus arvensis*, smooth sow-thistle *Sonchus oleraceus*, walted thistle *Cardus crispus*, red bartsia *Odontites vernus*, smooth hawk's-beard *Crepis capillaris*, betony *Stachys officinalis* and dandelion *Taraxicum officinale* agg.

Tall Herb / Ruderal

- 3.12 Tall ruderal herb species were present across the site, largely at the margins around the fields or at waste land areas around farm materials/rubble, dumped machinery. Dominant species in such situations included common nettle *Urtica dioica*, creeping thistle *Cirsium arvense* and great willowherb *Epilobium hirsutum* with frequent mugwort *Artemisia vulgaris*, teasel *Dipsacus fullonum* and broad-leaved dock *Rumex obtusifolius*.

Mixed and Broad-leaved Plantation Woodland

- 3.13 Great Field Plantation consisted of two distinct areas (W5 & W7). The western compartment (W5) had a number of mature specimens which were possibly planted as part of the original landscape as research dated back to 1886 found these specimens to be present. The content included Austrian pine *Pinus nigra* sp. *Nigra*, common larch *Larix decidua*, Grand fir *Abies grandis*, Beech *Fagus sylvatica*, English elm *Ulmus procera*, elder *Sambucus nigra*, Scots pine *Pinus sylvatica*, Norway spruce *Picea abies* and Sycamore *Acer pseudoplatanus*.
- 3.14 The eastern compartments (W7) had a higher content of deciduous trees such as common larch, grand fir and Norway spruce, which were more regularly spaced. Discussions with the landowner confirmed that this part of the plantation was intended to produce Christmas trees, but they had not been harvested and allowed to grow.
- 3.15 Ground flora in both compartments consisted of ivy *Hedera helix*, common nettle *Urtica dioica*, herb Robert *Geranium robertum*, false brome *Brachypodium sylvaticum*, hemlock *Conium maculatum*, wood dock *Rumex crispus* and dog's-mercury *Mercurialis perennis*; however these were more numerous within compartment W5. There were some under canopy species which included holly *Ilex aquifolium* and hazel *Corylus avellana*. The woodland was well trodden with footpaths and showed signs of regular human disturbance from the presence of fires, dens and litter.
- 3.16 Great Field Plantation contains a variety of deciduous woodland species, that have been purposely planted, which therefore falls under the designation of a plantation woodland⁹, due to its planted nature this woodland cannot be designated as a lowland mixed deciduous woodland, and therefore not Habitat of Principal Importance under NERC

⁹ JNCC (2010) *Handbook for Phase 1 habitat survey - a technique for environmental audit*. Peterborough

(2006)⁵; this woodland also does not qualify for CWS¹⁰. However, the woodland has a good composition and provides a range of habitats for a variety of fauna, especially with the differing specimen life stages which increase biodiversity.

- 3.17 Woodland W1 runs along the south western boundary of the site, this is composed of number of early mature Norway maple *Acer platanoides* and sycamore with a mixture of Scots pine and Austrian pine, all planted in a linear formation with little space between them which therefore reduced the ground flora. Under canopy species included English elm, field maple *Acer campestre*, blackthorn *Prunus spinose* and dog wood *Cornus sanguinea*. A number of informal pathways run through this woodland, providing access for dog walkers, there is also a path along the south western edge of this woodland which passes under tree canopies which back onto the nearby residential estate.
- 3.18 A small woodland copse exists on the north western boundary (TN1), near Great Field Plantation; this had horse chestnut *Aesculus hippocastanum* with field maple and an understorey of blackthorn with limited ground flora.
- 3.19 A watercourse runs through the site in a north west to south east orientation, this is lined with a dense tree group (TN2) which ran the length. Species here consist of crack willow *Salix fragilis* and alder, which under storey species of blackthorn, elder, hawthorn *Crataegus monogyna* and dogwood. As a result of the dense over-shading, aquatic and emergent vegetation within the stream was limited to very occasional brooklime *Veronica beccabunga* and pendulous sedge *Carex pendula*. As the watercourse headed south easterly more English oak with present on the banks, this also included a number of damaged specimens. Half way down this watercourse was a woodland W4, this contained a number of Scots pine and Austrian pine tightly planted thus reducing the light infiltration to the ground, this resulted in bramble and common nettle becoming dominant.
- 3.20 A number of tree groups backed onto the boundaries of the site (TN3, W6 & TN4), these consisted of a variety of broadleaved species including Ash *Fraxinus excelsior*, field maple, goat willow, English elm; with an understorey of dogwood, hazel, blackthorn and crab apple.
- 3.21 A recently planted linear tree belt ran along the western boundary (TN5), this linked woodland W1 to the north western boundary. This contains young and semi mature specimens planted approximately 2m apart, here species consist of ash, field maple, goat willow, English oak, wild cherry *Prunus avium*, apple *Malus domestica* and silver birch *Betula pendula*. Little management had occurred within these areas, as neutral grassland had established around the bases.

¹⁰ Suffolk County Wildlife Site Selection Criteria (2010). Revised March 2010. Suffolk Biodiversity Partnership. Accessed 11/08/15.

Hedgerows

3.22 Thirty one hedgerows are present within the site, at the boundaries and dividing the arable fields. These are described in more detail in Table 3 below:

Table 3. Hedgerow Descriptions

Hedge Ref.	Woody Species (defined in Hedgerow Evaluation Grading System)	Associated Features							Hedgerow Evaluation Grading System Grade	Important under Hedgerow Regulations
		Height	Width	% Gaps	Ditch (Wet or Dry)	Grass Verges	Standard Trees	Connections		
H1	Cm, Ac, Ap, Um, Cs, Fe, Ca.	2m	1m	0%	Dry	Yes	0	2	2+	Yes
H2	Defunct hedgerow. Ps, Ac, Ap, Cs, Fe.	2m	1m	30%+	Dry	Yes	1	2	4	No
H3	Ac, Um, Ps, Ca, Cm.	2m	1m	0%	Wet	Yes	0	1	3	No
H4	Ps, Cm, Sn, Um	2m	2m	0%	Dry	Yes	0	4	3+	No
H5	Cm, Sn, Qr, Fe	4m+	2m	10%	Dry	Yes	<3	2	3+	No
H6	Cm (planted)	2m	2m	0%	n.a	Yes	0	2	4+	No
H7	Cm, Cs, Ps (planted)	2m	2m	0%	n.a	No	0	1	4+	No
H8	Garden boundary hedgerow. Cm, Ca, Ps, Um, Fe, Ac, Ah	4m+	2m	10%	Dry	Yes	>5	1	2-	No
H9	Ac, Ps, Sn	2m	2m	10%	n.a	Yes	0	2	3-	No
H10	Garden boundary hedgerow. Ps, Ms	4m+	2m	10%	Dry	Yes	0	2	3	No
H11	Planted road-side hedgerow. Cm, Ac, Ps, Ca, Fe, Cs, Vo.	4m	2m	0%	n.a	Yes	<5	2	2	No
H12	Ps, Fe, Qr, Cm, Cs	3m	2m	10%	Dry	Yes	<5	2	2-	No
H13	Cm, Ps	2m	1m	10%	n.a	No	0	3	4	No
H14	Defunct hedgerow. Cs, Cm, Qr.	2m	2m	30%+	Dry	Yes	<3	1	4	No
H15	Defunct hedgerow. Cm, Ps, Cs.	2m	2m	30%+	Dry	Yes	<5	2	3-	No
H16	Ps, Cm, Um	1m	1m	0%	Wet	Yes	0	1	3-	No
H17	Cm, Qr, Um	4m	2m	0%	Wet	Yes	1	2	3-	No
H18	Defunct hedgerow Cm, Qr, Ac, Vo, Ca	2m	2m	30%+	Dry	Yes	<3	2	3-	No

H19	Ac, Um, Cs, Ps, Fe, Ms, Cm, Sn, Ca, Qr	3m	2m	0%	Dry	Yes	<3	3	1-	Yes
H20	Ps, Cs, Ca, Ac, Um	2m	2m	0%	Dry	Yes	0	2	2	No
H21	Ps, Um, Cm, Qr, Ca, VI	2m	2m	30%	Dry	Yes	<3	2	2-	No
H22	Um, Ca, Sn, Ac	2m	2m	30%	Dry	Yes	0	2	3+	No
H23	Ca, Ps, Um, Ac, Sn	2m	2m	10%	Dry	Yes	<3	3	2	No
H24	Defunct hedgerow Cs, Um, Ps, Sn	2m	2m	+30%	Dry	Yes	0	2	4	No
H25	Ps, Cm, Fe	2m	2m	10%	Dry	Yes	<3	3	3+	No
H26	Defunct hedgerow Sn, Ps	2m	2m	+30%	Dry	Yes	0	0	4	No
H27	Ac, Um	2m	2m	0%	n.a	Yes	0	1	4+	No
H28	Defunct hedgerow Fe, Um, Ps, Ac	+4m	1m	+30%	Dry	Yes	>5	1	3-	No
H29	Garden boundary hedgerow Um, leylandii, cherry,	2m	2m	10%	n.a	Yes	0	1	4	No
H30	Tree line Ap, Um, Ca, Ac, Ps	+4m	2m	+30%	Dry	Yes	>5	1	3+	No
H31	Defunct hedgerow Fe, Ap, Ac, Ps, Um	+4m	1m	+30%	Dry	Yes	>5	0	3-	No

(Ac – field maple, Ah – horse chestnut, Ap – sycamore, Bp – silver birch, Ca – hazel, Cb – hornbeam, Cl – midland hawthorn, Cm – hawthorn, Cs – dogwood, Um – elm, Fe – ash, Fs – beech, Ia – Holly, Lv – wild privet, Malus sp. – apple sp, Ms – crab apple, Populus sp. – Poplar sp., Ps – blackthorn, Qr – English oak, Rc – dog rose, Salix sp. – willow species, Sc – grey willow, Sn – elder, VI – Viburnum lantana, Vo Guelder rose.)

Watercourses

- 3.23 A 1-2m wide, steep sided stream runs from north west to south east through the middle of the site. The stream is set within a fringe of broad-leaved woodland that creates a dense cover along the western bank. The banks and ground flora within the woodland comprised species including ground ivy, soft brome, hemlock, common nettle, bramble, dog's-mercury, cuckoopint *Arum maculatum*. The stream was not flowing at the time of survey but contained shallow pools of standing water. The stream was densely over-shaded which limited aquatic and emergent vegetation growth; species observed included brooklime *Veronica beccabunga* and pendulous sedge.
- 3.24 The majority of the field boundaries included a dry ditches; those within hedgerows were densely over-shaded and those that were open were densely vegetated with the surrounding semi-improved grassland, with patches of great willowherb *Epilobium hirsutum*, rosebay willowherb *Chamerion angustifolium* and common nettle. Wet ditches were shallow (<10cm of water) at the time of survey and are found in association with hedgerows H3, H16 and H17. All wet ditches were heavily over-shaded by the adjacent

hedgerows providing little to no opportunity for aquatic and emergent vegetation other than pendulous sedge which was occasionally recorded. These subsequently dried during drier periods.

Waterbodies

- 3.25 Two ponds were present within the site boundary and three immediately outside the site boundary. Two of the offsite ponds (P1 & P2) are located within the grounds of Great Wilsey Farm. P1 was a moat located in the garden connected to Great Wilsey Farm. The waterbody measured approximately 640m² with steep-sided reinforced banks. The waterbody was up to 2m deep and appeared to be lined with concrete. No marginal or aquatic vegetation was present during surveys and fish were recorded. Pond P2 appeared to be an old cart washing facility, with vertical brick sides, a gravelly base and high levels of duck weed *Lemna* sp coverage.
- 3.26 Pond 3 and 3a are located within the site boundary. Pond 3, which was found to be dry during the Phase 1 walkover, which set on a woodland edge of Great Field Planation, therefore was heavily over-shaded. The pond comprised a shallow depression with aquatic and marginal vegetation including soft rush *Juncus effusus*, pendulous sedge and brooklime. P3a was a small puddle of water (2m²) that had collected at the base of a ditch which led south from the woodland containing P3 and connected to the drainage system for the arable land adjacent. P4 is an off-site attenuation pond lying adjacent the housing estate along the southern boundary. The pond was fringed by common reed-mace *Typha latifolia* with aquatic vegetation including broad-leaved pond weed *Potamogeton natans*.

Fauna

- 3.27 The reports for the other protected species surveys are contained with their own separate reports which accompany the planning application, therefore no further assessments or comment will be made, with the exception of water voles below.

Water Voles

- 3.28 There were water vole records approximately 493m south of the site in a watercourse connected to the site, in 2002. The majority of the streams were dry at the time of survey in 2014 and 2015, however they did contain bank profiles and substrate that could be used for burrowing, they also contained isolated patches of vegetation which could provide foraging opportunities.
- 3.29 The watercourse which runs through the centre of the site was not following during the survey, but there were sections of standing water. The stream was heavily over-shaded by a strip of woodland resulting in very limited bank-side and emergent vegetation. The banks were very steep sided and largely devoid of vegetation other than occasional common nettle, ground ivy, ivy, false brome and bramble. Emergent and aquatic vegetation was limited to very occasional pendulous sedge and brooklime. No evidence of water voles or otters were seen during surveys in 2014 and 2015.

4.0 DISCUSSION

- 4.1 The following section provides an evaluation of the site and identifies the likely ecological constraints associated with the proposed development. Where appropriate, recommendations have been made for mitigation, compensation or further survey if required.

Proposals

- 4.2 The application site measures 163.34 ha, of which 80.19ha of green infrastructure (GI) will be provided which is excess of the 40% recommended by Natural England. Linear areas of open space will be located centrally following existing footpaths, with additional woodland compartments created in the southern extent of the site; also screening woodland will be planted in the north. The extensive GI will ensure continuous habitat linkage around the site and into the wider area is maintained and enhanced.
- 4.3 Attenuation basins are proposed which will be located in association with the open spaces, these will function as water storage but also have ecological enhancements which will include areas of seasonal drying, variety of vegetation coverage, and a diversity of surface water coverage. A diverse range of habitats will be created within the GI which will favour a range of species, but also provide recreational opportunities.
- 4.4 Habitats to be lost comprise the improved grassland and arable fields; small sections of hedgerows H4, H9, H11, H12, H13, H14, H19, H21 and H23 will be lost to facilitate vehicular access through the site.

Statutory and Non-statutory Designated Sites

- 4.5 Haverhill Nature Walks LNR is located 492m south from the site boundary and four CWS are present within 1km, the closest being Haverhill Disused Railway Line which is part of the LNR. Annes Suckling's Way, Broad Street Old Allotments and Norney Plantation CWS lie 729m, 760m and 990m from the site respectively. These are all separated from the site by residential housing and roads.
- 4.6 It is considered that due to the size of the development, an increase in recreational pressure upon the Haverhill Nature Walks LNR and associated CWS (Haverhill Disused Railway Line) would occur if there were no mitigation measures. There is potential to degrade the sites through trampling, erosion, nitrification and eutrophication through increases in dog faeces and urbanisation issues (littering, vandalism etc).
- 4.7 The frameworks plan currently includes a substantial amount of GI, particularly within the southern extent of the site, incorporating the existing public rights of way, the woodlands, waterbodies and play areas. The majority of walks are likely to be made by dog owners and it is considered that the inclusion of GI within the design will deter the daily use of the LNR. Walks through the site will be provided that pass through semi-natural habitats, sections will be enforced with formal paths with dog bins, while other areas will have grassy rides of shortly grown paths through meadow grasslands; these will be managed and routes altered to ensure rotational meadow cutting regimes take place. Off-lead exercise areas will be provided in the south east of the site, as these are away from access roads ensuring a safe area is provided. It is thought that the development of these semi

natural habitats and play areas will discourage visits to surrounding LNR and other non-statutory sites.

- 4.8 Proposed play areas will be located centrally within the site; these will therefore be a focal point for child recreation, all of which will be assessable from the different residential areas of the development. Play areas located next to natural features such as woodland will be sensitively screen, whereby post and wire fencing will be used as a temporary measure to stop play extending into such areas, these will be planted with thorny hedgerow species which in the long term will provide a barrier and an ecology important feature.

Habitats / Flora

- 4.9 The degree to which habitats receive consideration within the planning system relies on a number of mechanisms, including:
- Inclusion within specific policy (e.g. veteran trees, ancient woodland and linear habitats in NPPF, or non-statutory site designation),
 - Identification as a habitat of principal importance for biodiversity under Natural Environment and Rural Communities Act (NERC) 2006 and consequently identification as a Priority Habitat within England and the local area.
- 4.10 Under NPPF, development should seek to contribute a net gain in biodiversity with an emphasis on improving ecological networks and linkages where possible.
- 4.11 The main habitats within the site comprise arable and improved grassland fields. Due to the intensive management of this agricultural land, diversity was restricted and its value in terms of flora is considered to be low. The fields are likely however to provide foraging opportunities for local birds, invertebrates and mammals.
- 4.12 The field margins in the east of Great Wilsey Farm were designated as a 'Wildlife Conservation Area' and it is assumed it is designated as part of the Farm's countryside stewardship scheme. The field margins and hedgerows within these areas were species rich and appeared to be regularly cut to maintain floristic diversity and structure. Where possible such areas are to be retained and incorporated into the development; however where such areas are lost there will be opportunities for created elsewhere. There is opportunity to enhance floral biodiversity within the site through creation of meadow and tussock grasslands within GI, particularly within the south eastern extent of the site. Where formal paths are required through the development, wildflower mixes will be used around the edges, replacing amenity grassland commonly used; this will be subjected to management agreements as such habitat would require more sympathetic cutting regimes.
- 4.13 Wetland habitats will be incorporated into the development, as these habitats were poorly represented, the majority within the built environment will consist of attenuation which will be linked to new/existing GI providing linkages around the development and into the surroundings. Attenuation will be provided around the site which will act as focal points for residents, but also an area of permanent water for wildlife.
- 4.14 The blocks of plantation woodland across the site were subject to regular human disturbance with well-trodden footpaths throughout. Although not floristically diverse, they provide value to wildlife for foraging and nesting habitat. Post development, measures to

- enhance the woodlands through appropriate management would help to maintain their wildlife value long term. All woodlands are to be retained through proposals and further creation of woodland is proposed along the northern boundary and within the southern extent of the site. A large resource of trees will also be planted throughout the site. Existing trees provide potential habitats for invertebrates, nesting birds and other wildlife and should be protected from damage and from soil compaction during works by maintaining fenced Root Protection Areas (RPAs) in line with arboricultural best practice.
- 4.15 All hedgerows are habitats of Principal Importance in England under Section 41 of the NERC Act 2006 and are a priority habitat under the Suffolk Biodiversity Action Plan (BAP). The hedgerows within the site boundary were assessed for their value to wildlife and two of the thirty-one hedgerows were assessed as being 'important' under the Hedgerow Regulations 1997; these were hedgerows H1 and H19. These hedgerows contained a high diversity of woody species and their characteristics such as height, width and form make them important feeding resources, shelter and wildlife corridors. Hedgerows are to be retained however small sections will be removed from hedgerow H19 to facilitate access and permission for this partial removal would need to be sought from the local planning authority either through a hedgerow removal notice or through the planning application.
- 4.16 Hedgerows H8, H11, H12, H20, H21 and H23 all scored '2' moderate to moderately high value, under the HEGS assessment. The majority of the remaining hedgerows; H3- H5, H9, H10, H15-H18, H22, H25, H28, H30, H31 scored 3 'moderate value' and hedgerows H2, H6, H7, H13, H14, H24, H26, H27 and H29 scored '4' low value. Those that were assessed as being of low value were in most cases defunct hedgerows or garden boundary hedgerows.
- 4.17 The existing network of hedgerows, trees and woodland within the site were largely continuous with few gaps providing good connectivity between habitats both around the site and within the immediate landscape. Under NPPF, development should seek to contribute a net gain in biodiversity with an emphasis on improving ecological networks and linkages where possible. The network of hedgerows and woodland across the site will be maintained and enhanced with losses limited to severance of hedgerows where access is required. Further woodland, hedgerows and trees will enhance the site's connectivity and provide valuable habitats for local wildlife. Compensatory habitat in the form of woodland and tree planting, as well as enhancements and buffering of hedgerows will mitigate for the small losses of hedgerow. Example species lists for any replacement hedgerows are provided in Appendix C.
- 4.18 The riparian habitat running through the centre of the site provides an established green link with the wider countryside as well as providing immediate foraging and nesting habitat. A public footpath will follow the riparian habitat, habitat creation will endeavour to keep these habitats as natural as possible with the additional of bankside vegetation, tree groups and scrub to ensure areas remain secluded. Management will also ensure that these habitats retain a suitable structure, so they do not compromise biodiversity and that the water corridor remains free flowing and free from litter.
- 4.19 Preference should be given within the planting scheme to the use of locally native woody species, with an emphasis on species bearing nectar, berries, fruit and nuts, as these enhance the foraging opportunities for local wild fauna including birds and invertebrates.

Suitable small tree species for inclusion in hedgerow and garden planting schemes include field maple *Acer campestre*, silver birch *Betula pendula*, wild cherry *Prunus avium*, bird cherry *P. padus*, holly *Ilex aquifolium*, crab apple *Malus sylvestris* and rowan *Sorbus aucuparia*. Other shrub species suitable for inclusion within the soft landscaping design include hawthorn *Crataegus monogyna*, hazel *Corylus avellana*, blackthorn *Prunus spinosa*, dog rose *Rosa canina*, honeysuckle *Lonicera periclymenum*, guelder-rose *Viburnum opulus* and wild privet *Ligustrum vulgare*.

- 4.20 Where possible, planting within the site should seek to provide additional habitat for urban and suburban wildlife. While native species are often of value to biodiversity, generally it is now clear that many cultivated varieties and exotic plants are also good for wildlife provided that their flowers are not too complex or that hybrid varieties, which may produce little or no pollen or nectar and so are not of interest to bees, butterflies or other pollinating insects, are not used. The planting strategy, both within private and public areas, should therefore combine a range of native species and where appropriate, such as gardens and more formal areas, a range of ornamental species with an accepted value for biodiversity. A range of small shrubs, low growing woody species, grasses and perennials, would provide a range of forms, sizes and finer scale variation to enhance the future structural and three dimensional complexity of the site post development which would benefit wildlife.
- 4.21 The balancing facilities/water bodies will be designed to maximise their biodiversity value with wide shallow draw down zones, scalloped edges and deep central areas. The water bodies should be planted with locally native marginal and aquatic vegetation including species such as soft rush and purple loosestrife *Lythrum salicaria* planted around the edges, tall emergent plants and floating-leaved plants such as yellow water-lily *Nuphar lutea* within the deeper areas of water. The ponds can be made more visually attractive through the planting of selected species including marsh marigold *Caltha palustris*, water dock *Rumex hydrolapathum* and common water plantain *Alisma plantago-aquatica*. A denser and taller area of vegetation should be planted/encouraged around the pond edges to provide additional habitats for invertebrates and terrestrial habitats for amphibians.

Protected Species

Water Voles

- 4.22 One record of water vole was provided in the desk study results, which occurred in 2002 within a watercourse approximately 500m south, which is connected to the site. Habitats were found to be sub-optimal for water voles, as there was a lack of continuous water within the ditch system which also resulted in there being a lack of continuous foraging opportunities. During surveys of the site during 2014 and 2015 no evidence was found, however due to the transitional nature of this species, continuing surveys should be carried out up to development.

5.0 SUMMARY

- 5.1 The GI within the site should mitigation for the recreational pressures exerted on surrounding designated sites; as there will be more formalised walks within the development, with more semi natural environments such as meadow grassland with mown rides. There will also be a number of play areas, all accessible by residents which will enable play without having a detrimental effect on habitats. It is therefore concluded that there will be a **negligible** effect on surrounding statutory and non-statutory sites.
- 5.2 The majority of the hedgerows within the site will be incorporated into the GI. Two 'important' hedgerows under Hedgerow Regulations were identified; however there was a variety of hedgerows through the site that had a mixture of moderate/high to low value. There will only be small sections of hedgerows removed to facilitate access into the compartments. Existing and new hedgerows will be planted with native species, which will include berry and nut bearing fruits, which will increase foraging potential for wildlife. The development is likely to have a **beneficial long term effect** of the hedgerow habitat within the site.
- 5.3 The riparian habitat will be retained and adequately buffered, with additional planting to screen sensitive areas and to allow for wildlife to colonise. Management will ensure new habitats develop and biodiversity is maintained. The development will increase the value of this habitat which was previously poorly developed, where there will be a beneficial long term effect.
- 5.4 The woodlands within the site will be retained and enhanced with native species. It is likely that these areas will be used for recreation and/or short cuts into surrounding areas, therefore access will be restricted to designated paths, ensuring biodiversity in enhanced as areas within the wood remain undisturbed. Additional woodland planting will also be undertaken, creating new linkages and habitats. The management of existing woodland and creation of new will have **beneficial long term effect**.
- 5.5 There was no evidence of water voles within the stream during the 2014 and 2015 surveys, however there are records south of the site which date back to 2002. Habitats within the site will be enhanced to ensure water retention and increase foraging opportunities; whereby hopefully water voles might colonise.

APPENDIX A: BOTANICAL SPECIES LIST

Common Name	Latin Binomial
GRASSLAND, MARGINS & TALL HERB	
Barren brome	<i>Bromus sterilis</i>
Black horehound	<i>Ballota nigra</i>
Bracken	<i>Pteridium aquilinum</i>
Bristly oxtongue	<i>Picris echioides</i>
Broad-leaved willowherb	<i>Epilobium montanum</i>
Broad-leaved dock	<i>Rumex obtusifolius</i>
Burdock	<i>Arctium lappa</i>
Cleavers	<i>Galium aparine</i>
Cock's-foot	<i>Dactylis glomerata</i>
Common bent	<i>Agrostis capillaris</i>
Common nettle	<i>Urtica dioica</i>
Common vetch	<i>Vicia sativa</i>
Creeping bent	<i>Agrostis stolonifera</i>
Creeping buttercup	<i>Ranunculus repens</i>
Creeping cinquefoil	<i>Potentilla reptans</i>
Crested dog's-tail	<i>Cynosurus cristatus</i>
Dandelion	<i>Taraxacum officinale</i> agg.
Dove's-foot crane's-bill	<i>Geranium molle</i>
False oat-grass	<i>Arrhenatherum elatius</i>
Fools parsley	<i>Aethusa cynapium</i>
Hawkweed sp	<i>Hieracium</i> agg sp
Herb Robert	<i>Robertum geranium</i>
Hogweed	<i>Heracleum sphondylium</i>
Mugwort	<i>Artemisia vulgaris</i>
Nipplewort	<i>Lapsana communis</i>
Perennial rye-grass	<i>Lolium perenne</i>
Pineappleweed	<i>Matricaria discoidea</i>
Prickly sow-thistle	<i>Sonchus asper</i>
Red clover	<i>Trifolium pratense</i>
Red fescue	<i>Festuca rubra</i>
Rough hawkbit	<i>Leontodon hispidus</i>
Rough meadow-grass	<i>Poa trivialis</i>
Scented mayweed	<i>Matricaria perforata</i>
Smooth meadow-grass	<i>Poa pratensis</i>
Smooth sow-thistle	<i>Sonchus oleraceus</i>
Soft brome	<i>Bromus hordeaceus</i>
Spear thistle	<i>Cirsium vulgare</i>

Speedwell	<i>Veronica sp</i>
St John's-wort	<i>Hypericum perforatum</i>
False brome	<i>Brachypodium sylvaticum</i>
Sweet vernal grass	<i>Anthoxanthum oderatum</i>
Timothy	<i>Phleum pratense</i>
Wall barley	<i>Hordeum murinum</i>
Wood meadow-grass	<i>Poa nemoralis</i>
Yarrow	<i>Achillea millefolium</i>
Yorkshire fog	<i>Holcus lanatus</i>
Common Name	Latin Binomial
Hedgerows, trees and scrub	
Ash	<i>Fraxinus excelsior</i>
Alder sp	<i>Alnus sp</i>
Beech	<i>Fagus sylvatica</i>
Blackthorn	<i>Prunus spinosa</i>
Bramble	<i>Rubus fruticosus agg.</i>
Broad-leaved dock	<i>Rumex obtusifolius</i>
Cherry sp	<i>Prunus sp.</i>
Cleavers	<i>Galium aparine</i>
Common hornbeam	<i>Carpinus betula</i>
Common ivy	<i>Hedera helix</i>
Common nettle	<i>Urtica dioica</i>
Cow parsley	<i>Anthriscus sylvestris</i>
Crab apple	<i>Malus sp.</i>
Damson	<i>Prunus sp</i>
Dog rose	<i>Rosa canina</i>
Elder	<i>Sambucus nigra</i>
Elm sp	<i>Ulmus sp.</i>
English oak	<i>Quercus robur</i>
Field maple	<i>Acer campestre</i>
Garlic mustard	<i>Alliaria petiolata</i>
Goat willow	<i>Salix caprea</i>
Hawthorn	<i>Crateagus mongyna</i>
Hazel	<i>Corylus avellana</i>
Hedge woundwort	<i>Stachys sylvatica</i>
Holly	<i>Ilex aquifolium</i>

Poplar sp.	<i>Populus sp.</i>
Rough chervil	<i>Chaerophyllum temulum</i>
Rowan	<i>Sorbus aucuparia</i>
Sycamore	<i>Acer pseudoplatanus</i>
Turkey oak	<i>Quercus cerris</i>
White dead-nettle	<i>Lamium album</i>
White Poplar	<i>Populus alba</i>
Willow sp	<i>Salix sp.</i>

APPENDIX B - HABITAT ENHANCEMENT

An overall master-plan for the proposed development showing access routes and development plots was provided at the time of reporting. No landscaping proposals or planting schemes were however provided and therefore general recommendations to help increase biodiversity within the development are provided below. Any landscaping scheme should look to include the following:

Woodland management

Any retained areas of plantation woodland should be managed appropriately to ensure an appropriate mix of understorey and ground flora is maintained. Management may also include tree removal, creation of dead wood habitat piles and clearance of litter. Implementation of bat and bird boxes within these woodlands would provide additional roosting and nesting habitat for a range of species.

Hedgerow / tree and shrub planting

Wherever possible hedgerows and field boundaries should be retained, enhanced and managed appropriately, to maintain green links and foraging and nesting habitat around the site. It is recommended that as much as a buffer as possible is implemented between the development and such retained habitats (ideally >5m).

Any created shrub and hedgerows should comprise of native species of a local provenance to provide additional / compensatory food sources and nesting habitat. Species mixes should look to include:

- Common Oak *Quercus robur*
- Elm *Ulmus sp*
- Field Maple *Acer campestre*
- Hawthorn *Crateagus monogyna*
- Blackthorn *Prunus spinosa*
- Field maple *Acer campestre*
- Hazel *Corylus avellana*
- Dogwood *Cornus sanguinea*
- Spindle *Euonymus europaeus*
- Wayfaring tree *Viburnum lantana*
- Guelder Rose *Viburnum opulus*.

Wildflower grasslands

The retention and management of the existing grassland field boundaries should be implemented wherever possible. Creation of wildflower lawns within the landscaping scheme would benefit biodiversity in creating habitat for invertebrates, bird and bat species. Management of such habitats would include rotational cutting and removal of arisings to maintain species richness.

Water-bodies

The existing ponds and water-courses should be retained within the development and protected via creation of buffer strips (>5m) between it and the development footprint. Surface water schemes for the development should ensure the water-courses are not adversely affected from pollution, additional silting etc.

Any balancing ponds required for the development should look to include shallow margins (of 1 in 10 and 1 in 20) and scalloped edges to create various shallow areas of benefit to amphibians and invertebrates. Aquatic and emergent planting could be implemented to enhance the ponds establishment for wildlife. Species mix should look to include those listed below.

Aquatic plants

- Curled pondweed - *Potamogeton crispus*
- Water starwort - *Callitriche stagnalis*
- Water milfoil - *Myriophyllum spicatum*

Floating leaf plants

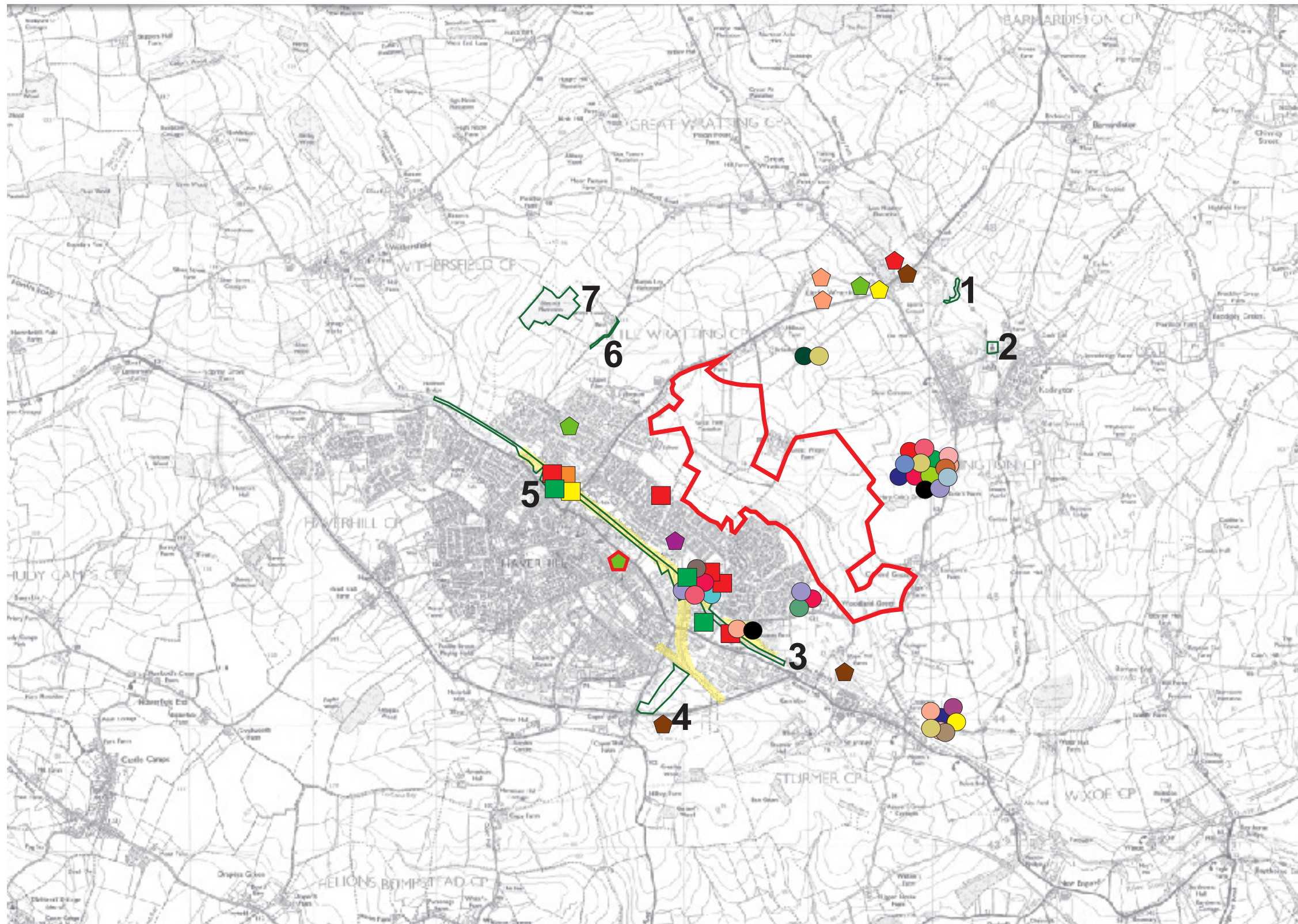
- Broad-leaved pondweed - *Potamogeton natans*
- Frogbit - *Hydrocharis morsus-ranae*
- Floating sweet-grass - *Glyceria fluitans*

Shallow water emergents

- Amphibious bistort - *Persicaria amphibia*
- Water forget-me-not - *Myosotis scorpioides*
- Arrowhead - *Sagittaria sagittifolia*
- Brooklime - *Veronica beccabunga*

Tall emergents




- Flowering rush - *Butomus umbellatus*
- Branched bur-reed - *Sparganium erectum*
- Water mint - *Mentha aquatica*

















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-  Site Boundary
-  **Local Nature Reserve**
Haverhill Railway Walks
-  **County Wildlife Sites**
 1. River Stour Woodland
 2. Kedington Churchyard
 3. Haverhill Disused Railway Line
 4. Bumpstead Road Grassland
 5. Broad Street Old Allotments
 6. Anne Sucklings Way
 7. Norney Plantation

-  Eurasian Hobby Record
-  European Turtle Dove Record
-  Fieldfare Record
-  Great Bittern Record
-  Grey Wagtail Record
-  House Sparrow Record
-  Northern Lapwing Record
-  Reed Bunting Record
-  Sand Martin Record
-  Sky Lark Record
-  Song Thrush Record
-  Spotted Flycatcher Record
-  Yellow Wagtail Record
-  Yellowhammer Record
-  Grey Partridge Record
-  Barn Owl Record
-  Common Cuckoo Record
-  Common Kingfisher Record
-  Common Linnet Record

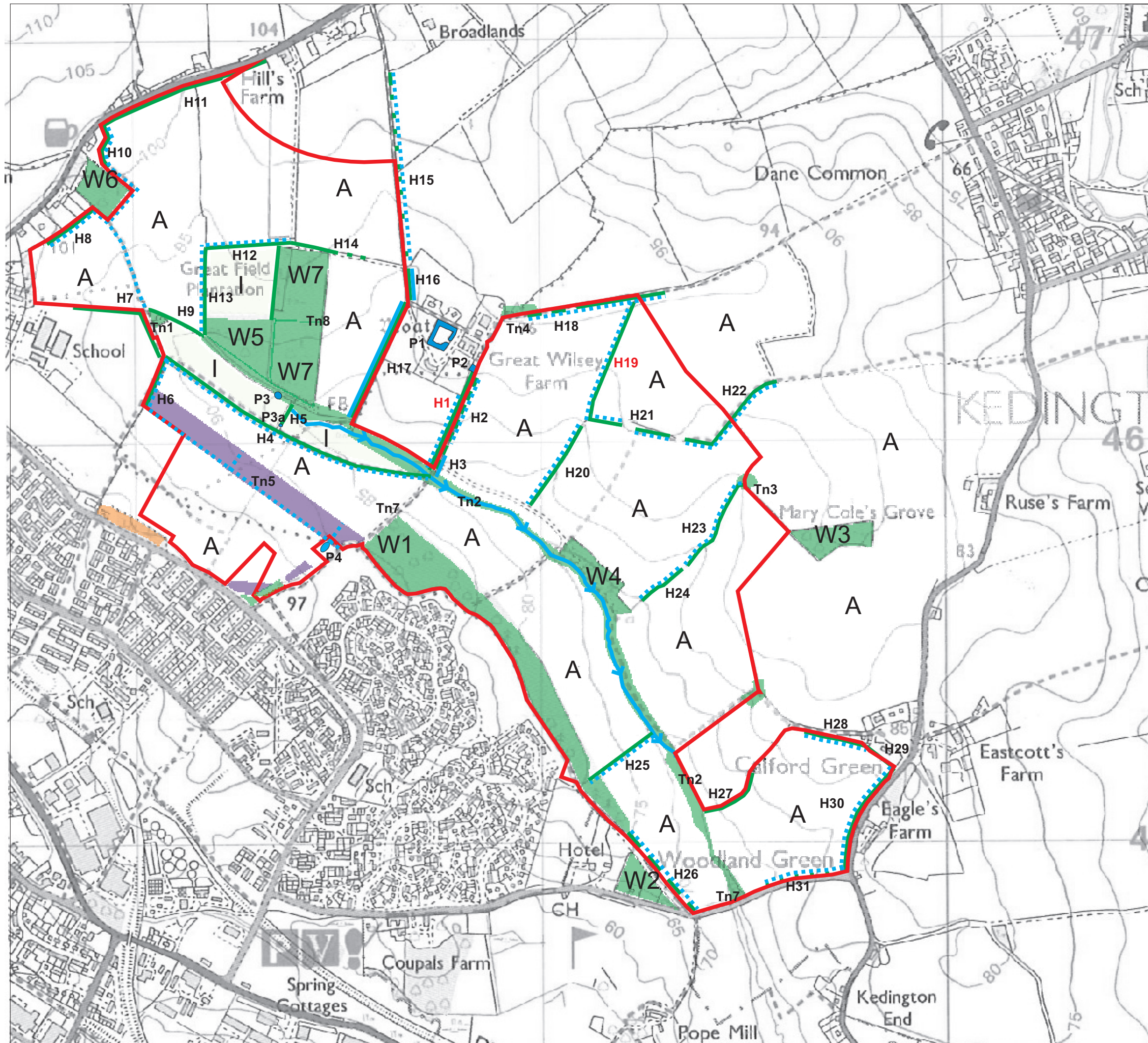
-  Bat Species Record
-  Brown Long-eared Bat Record
-  Pipistrelle Bat Species Record
-  Pipistrelle Roost Species Record
-  Soprano Pipistrelle Species Record
-  Common Lizard Record
-  Common Toad Record
-  Grass Snake Record
-  Slow-worm Record
-  Common Starling Record
-  Corn Bunting Record
-  European Water Vole Record
-  European Otter Record

 Hallam Land Management Ltd
Great Wilsey Park,
Haverhill, Suffolk

SITE LOCATION AND CONSULTATION RESULTS PLAN

Not to scale JWP/DAH 10.08.2015

Figure 1 5055-E-01



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- Site Boundary
- A Arable Fields
- Semi-Natural Broadleaf Woodland
- I Improved Grassland
- New Plantation Woodland
- Amenity Grassland
- TN1 Target Note
- Hedgerow with Reference
- Hedgerow of importance under REGS
- P2 Pond
- Watercourse
- Dry Ditch
- Wet Ditch

Hallam Land Management Ltd

Great Wilsey Park,
Haverhill, Suffolk

PHASE ONE HABITAT PLAN

Not to scale KAW / DAH 19.05.2015

Figure 2 5055-E-02