



# **Local Wildlife Sites Review** North Kesteven Surveys 2009 **Report for North Kesteven District Council.**

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# Executive Summary

- The Ecology Consultancy was commissioned by North Kesteven District Council to carry out a review of 49 existing and candidate Sites of Nature Conservation Importance (SNCIs) during 2009. In addition, the nine sites recommended for re-survey following the 2008 review were also revisited. The survey was intended to inform the emerging Local Development Framework for North Kesteven.
- A Phase 1 habitat survey was carried out on each site for which access permission was given. Information was gathered to a standard format, as defined by the Lincolnshire Biodiversity Partnership (2008) in its guidance for the selection of Local Wildlife Sites for the historic county of Lincolnshire. In total 55 sites were surveyed and a recommendation made, although one of these sites was inaccessible but surveyed from adjacent land. Access was denied to three sites. The information gathered was then used to evaluate each site against the Local Wildlife Site selection criteria, and to make recommendations as to which sites should be considered by the Local Wildlife Sites Panel for designation.
- The following broad habitats, as defined in the Local Wildlife Site selection guidelines, were recorded during the survey: woodland (including orchards), neutral grassland, calcareous grassland, freshwater, swamp, marsh and fen, brownfield, scrub and arable/improved grassland.
- Some 42 sites (76% of the total number surveyed) were evaluated as meeting one or more of the Local Wildlife Site selection criteria. Of these 22 qualified under woodland criteria (WD1/1a, WD6), three under neutral grassland (NG1), two under calcareous grassland (CG1), two under flowing water (Flo1), one under standing water (Sta2), three under swamp, marsh and fen (Sw2) and nine under habitat mosaics (Mos1, Mos 2).
- It is recommended that these 42 sites are given consideration by the Local Wildlife Sites Panel for designation as Local Wildlife Sites and subsequently incorporated into the Local Development Framework for North Kesteven.
- The one site that was inaccessible due to terrain and vegetation could not be properly assessed against the LWS criteria. It appeared to be of local wildlife value. and is likely to satisfy the criteria for designation, although the absence of a suitable survey precludes it from qualifying at this time.
- It is recommended that additional survey is carried out on a further three sites that were surveyed late in the season before making a final assessment as to whether or not they merit designation as Local Wildlife Sites.

# 1. Introduction

The Ecology Consultancy was commissioned by North Kesteven District Council to carry out a review of a number of existing and candidate Sites of Nature Conservation Importance (SNCIs) during 2009. The purpose of the review was to inform the emerging Local Development Framework for North Kesteven by assessing the sites against the recently produced guidelines for the selection of Local Wildlife Sites (LWS) in Lincolnshire (Lincolnshire Biodiversity Partnership 2008). These have been prepared by the Biodiversity Partnership in response to guidance produced by DEFRA on Local Sites – Guidance on their Identification, Selection and Management (DEFRA 2006). The aim of this guidance and the selection criteria for Lincolnshire is to make the selection of Local Wildlife Sites more consistent and robust by basing it on up-to-date survey information and defined criteria.

The review included a total of 58 sites, comprising the 49 sites on the 2009 list of priority sites provided by North Kesteven District Council, plus nine sites from the 2008 priority list for which additional information was required in order to inform the LWS panels' decision. The review took the form of a Phase 1 habitat survey of each site followed by an evaluation of the features present and comparison of these with the LWS selection criteria. This report presents the results of the review, including an overview of the findings as well as individual site descriptions and species lists. It makes recommendations with respect to sites that merit designation as LWS, including any suggested boundary modifications. As well as forming part of the evidence base for the Local Development Framework, the information contained in the report will be utilised by the Local Wildlife Sites Panel of the Lincolnshire Biodiversity Partnership to assess sites for designation as Local Wildlife Sites and will be incorporated into the biodiversity database for Lincolnshire maintained by the Lincolnshire Environmental Records Centre.

It should be noted that inclusion of a site in the survey or a recommendation for its designation as a Local Wildlife Site does not confer any right of public access to the land. The landowners' permission is required to visit all sites that are not open to the public.

## 2. The Project Brief & Methodology

The full project brief for the study is reproduced in Appendix 1. This originally called for a review of some 251 existing and candidate wildlife sites in North Kesteven. This list was subsequently divided according to priority, based on the requirements of the emerging LDF, resulting in a list of 49 sites prioritised for survey during 2009. Nine sites considered to require further surveys following the 2008 review were also surveyed during 2009. These included: three sites – all grassland sites – which were surveyed late in 2008, and therefore were recommended for resurvey at a more appropriate time of year; plus six large sites that were recommended for sub division in order to provide greater detail regarding areas of interest. This gave a total of 58 sites to be surveyed during 2009. Of these 58 sites, some 16 were located within 8 County Wildlife Sites identified in the North Kesteven Local Plan (Adopted Version September 2007).

The process of designating sites as Local Wildlife Sites in Lincolnshire is intended to be a four stage process. Of these, the first three stages are within the scope of this project. The first stage required direct field surveys of each site to describe the habitats present and to generate an inventory of vascular plant species present along with incidental records of other plants, fungi and animals. Second, each site was then evaluated against the criteria for the selection of Local Wildlife Sites and sites that satisfy one or more criteria were identified. Third, for each site a portfolio of documentation was prepared for submission to the Wildlife Sites Review Group, including a site record with an account of the habitats and other noteworthy features, a species list, a map of the site and an overall evaluation. A GIS layer showing the boundaries of all sites surveyed and any suggested boundary modifications was also produced as part of this work package.

All of the information gathered is to be submitted to the Local Wildlife Sites Panel of the Lincolnshire Biodiversity Partnership and to North Kesteven District Council. The Local Wildlife Sites Panel will use this information to assess each site against the selection criteria for Local Wildlife Sites and will then make a recommendation as to whether or not they should be designated as a non-statutory Local Wildlife Site (LWS). Landowners/managers will be informed of the Local Wildlife Sites Panel's recommendation and, should the site be recommended for designation as a LWS,

given the opportunity to make observations on the application of the selection criteria by the Lincolnshire Biodiversity Partnership Steering Group.

A copy of all of the survey information gathered will be lodged with the Lincolnshire Environmental Records Centre (LERC), for incorporation into their database. In addition, each landowner/manager will receive a copy of the survey information pertaining to their land.

The field surveys were undertaken following standard Phase 1 habitat survey methodology (JNCC 1993) and the protocols outlined in the guidelines for the selection of Local Wildlife Sites (Lincolnshire Biodiversity Partnership 2008). A structured walk was carried out through each site, with the habitats and other features being recorded on a standard LERC recording card (see Appendix 2). A list of vascular plant species identifiable at the time of the survey was also compiled, using the Botanical Society of the British Isles (BSBI) recording card for North Lincolnshire (Appendix 2). Incidental records of bryophytes (mosses and liverworts), fungi, invertebrates, fish, amphibians, reptiles, birds and mammals were made where appropriate; however, detailed surveys of these groups were beyond the scope the project. It should be noted that for some habitats the selection criteria include the quality of the assemblages of fish or invertebrates, as determined by their community conservation score. This restriction is of particular relevance to the freshwater and swamp, marsh and fen habitats, and may result in some sites that are of lower value for vascular plants but of potential significance for fish and invertebrates being undervalued by the current process. The status of these sites may be reviewed as further information is gathered and made available to the Wildlife Sites Panel from other sources, e.g. the Environment Agency.

National Indicator 197 'Improved Local Biodiversity' is one of the indicators used by local authorities to report their performance under the Local Government Performance Framework. It seeks to measure the proportion of Local Wildlife Sites where positive conservation management has been or is being implemented (DEFRA 2008). Evidence of such positive management is considered to be a proxy for positive biodiversity outcome and is one of the ways in which local authorities can show that they are taking biodiversity into consideration and help meet their biodiversity duty under Section 40 of the Natural Environment and Rural Communities Act 2006.

To assist with the information gathering process, a section on NI 197 has been incorporated into the standard LERC recording card (see Appendix 2). This records whether there is a management plan for the site, if conservation advice is being followed, or whether the site is entered into the Government's Woodland Grant Scheme or Environmental Stewardship (Higher Level Stewardship (HLS), Entry Level Stewardship (ELS) and Organic Entry Level Stewardship (OEL)). These are considered to indicate positive conservation management, though it should be noted that inclusion under a farm-scale initiative such as Environmental Stewardship does not necessarily mean that active conservation management is being undertaken on all features/habitats covered by the designation. Information on these aspects was gathered mainly through Magic (Multi-agency Geographical Information for the Countryside [www.magic.gov.uk/](http://www.magic.gov.uk/)), which shows those areas of the countryside covered by Woodland Grant and Environmental Stewardship agreements.



### 3. The Local Wildlife Sites Selection Criteria

Guidelines for the identification and selection of Local Wildlife Sites in Lincolnshire have been produced by the Local Wildlife Sites Panel of the Lincolnshire Biodiversity Partnership. These guidelines have formed the basis for the evaluation of the sites in the current study and the key aspects relevant to habitats present in North Kesteven are summarised here. Account has also been taken of proposed amendments to the guidelines (Lincolnshire Biodiversity Partnership 2008).

A series of criteria have been developed for nine broad habitat types to enable the identification of sites that are of sufficient quality for designation as Local Wildlife Sites. These are based variously on habitat continuity, area, numbers of indicator species (plant index score) or other notable features.

The criteria evaluating the botanical quality of a site are based on a total plant index value for the site or individual habitat areas, calculated as the sum of the scores for each indicator species at a site. In most instances each indicator species has a score of '1', thus the index score is effectively the number of indicator species. The small number of exceptions include:

- Neutral and calcareous grassland – The restharrow *Ononis* and eyebrights *Euphrasia*, where each genus is assigned a score of '1' irrespective of the number of species.
- Acid peatland – The bog moss genus *Sphagnum*, where the genus is assigned a score of '1' irrespective of the number of species.
- Fresh water – Water starworts *Callitriche* where the genus is assigned a score of '1' irrespective of the number of species, water-cresses *Rorippa* where the genus is assigned a score of '1' irrespective of the number of species and the stoneworts Characeae, where each species is assigned a score of '1' but only a maximum score of '3' can be achieved.

The broad habitat types recognised by the selection criteria are:

- Woodland and parkland
- Grassland (neutral and calcareous)
- Heathland and acid grassland

- Acid peatland
- Purple moor grass and rush pasture
- Fresh water
- Swamp, marsh and fen
- Coastal and estuarine habitats
- Mosaics

The selection criteria for coastal and estuarine habitats are not relevant to the inland district of North Kesteven and no examples of purple moor grass and rush pasture were found during the current survey.

#### *Woodland and parkland*

The guidelines contain six sets of criteria for woodland habitats, which include ancient woodland or ancient woodland sites, parkland or wood pasture, wet woodland and sites of value for their woodland flora. Two of the criteria sets relate to listings within the Ancient Woodland Inventory collated by Natural England and available at <http://www.magic.gov.uk/>. The botanical criteria primarily refer to a suite of woodland plants of value based on lists prepared by Peterken (2000); eighty species are listed in the guidelines, with six of the rarest indicators proposed by Peterken replaced by ferns, the presence of which increases the conservation value of woodlands in Lincolnshire. For the identification of wet woodland reference should be made to both the list of woodland indicators and the list of swamp, marsh and fen indicators. The identification of parkland or wood pasture is based on the presence of a veteran tree within a 1 hectare (ha.) site. These trees can provide valuable microhabitats such as dead wood and holes and have potential for supporting fungi, epiphytic ferns, bryophytes and lichens.

The criteria for woodland sites are:

- WD1: All semi-natural ancient woodland listed in Natural England's Ancient Woodland Inventory.
- WD1a: All plantations on ancient woodland sites listed in Natural England's Ancient Woodland Inventory.
- WD2: Woodland with characteristics of semi-natural ancient woodland that does not appear in the Ancient Woodland Inventory with a minimum species index score of 10.

- WD3: Woodland not covered by other criteria with a minimum species index score of 10.
- WD4: Wet woodland with a minimum species index score of 6 using the list of woodland indicator species and a minimum species index score of 6 using the list of swamp, marsh and fen indicator species.
- WD5 Parkland or wood pasture at least 1 ha. in extent that supports at least one veteran tree.
- WD6 Traditional orchard with 5 or more standard fruit and/or nut trees with crown edges no more than 20 m apart.

#### *Grassland (Neutral and Calcareous)*

Two types of grassland habitat are covered by these criteria: neutral grassland and calcareous grassland. Each habitat is defined by both a suite of indicator species and a minimum size. There is some overlap in the listing of indicator species for the two types of grassland, which both contain 56 species or species groups.

The criteria for neutral grassland are:

- NG1: Semi-natural neutral grassland at least 0.1 ha. in extent, or linear areas at least 50 m long, with a minimum species index score of 8 from the list of neutral grassland indicators.

The criteria for calcareous grassland are:

- CG1: Semi-natural neutral grassland at least 0.1 ha. in extent, or linear areas at least 50 m long, with a minimum species index score of 8 from the list of calcareous grassland indicators.

#### *Heathland and acid grassland*

Two sets of criteria for heathland and acid grassland habitats are included in the guidelines, based either on the total cover of characteristic heather species or the number of indicator species within a minimum total area. The list of indicator plants includes 57 species.

The criteria for heathland/acid grassland are:

- HE1: Heathland at least 0.1 ha. in extent, or linear areas at least 50 m long, that contains at least 10% heather/bell heather/cross-leaved heath.

- HE2: Other heathland and acid grassland at least 0.1 ha. in extent, or linear areas at least 50 m long, with a minimum species index score of 8

### *Acid peatland*

Two sets of acid peatland criteria are recognised; the characteristic peatland habitat, and any adjacent areas important to maintaining the hydrological conditions of the peatland areas. The identification of peatland is based on the presence of indicator species, with the list including 37 species, while the identification of any important adjacent habitat is based on a judgement of its likely importance to water flows, levels and quality.

The peatland related criteria are:

- AP1: Acid peatland with a minimum species index score of 5.
- AP2: Buffer land where sympathetic management of water levels and water quality is essential for the ecological integrity of adjacent acid peatland.

### *Purple moor grass and rush pasture*

A single type of purple moor grass and rush pasture habitat type is described, based on the numbers of indicator species present, with the list including 37 indicator species.

The criteria for purple moor grass and rush pasture are:

- PMG1: Purple moor grass and rush pasture with a minimum species index score of 8.

### *Fresh water*

The fresh water habitat category includes eight different types divided between springs and flushes and similar areas, rivers and similar areas, blow wells with water upwelling under artesian pressure, and standing waters. The criteria include both botanical features based on the presence of plant indicator species, important assemblages of fish or invertebrates identified by the Community Conservation Index score (CCI) or, in the case of blow wells, all sites meeting the physical definition are included. The community conservation index score is based on an independent classification scheme where species are assigned scores according to their ecological 'quality'. The plant indicator list is applicable to both flowing and standing waters and includes 68 main taxa, with water starworts *Callitriche* species

and water-cress *Rorippa* species scoring a maximum of 1 point and stoneworts *Characeae* a maximum of 3 points. Where the fish or invertebrate CCI and the plant indicator index is not sufficient for qualification when considered in isolation their consideration together may be sufficient to satisfy the criteria.

The criteria for flowing waters are as follows:

- Flo1: Springs, flushes, headwaters and winterbournes of high importance for their communities of fish or invertebrate – Community Conservation Index (CCI) of 15 or above.
- Flo2: Rivers, streams, canals, drains and ditches of high importance for their communities of fish or invertebrates – CCI of 15 or above.
- Flo3: Rivers, streams, canals, drains and ditches with a minimum species index score of 10.
- Flo4: Flowing water with a CCI of 10-14, and a minimum index score of 6.
- Flo5: All blow wells.

The criteria for standing waters are as follows:

- Sta1: Standing water of high importance for their communities of fish or invertebrates – Community Conservation Index (CCI) of 15 or above.
- Sta2: Standing water with a minimum species index score of 8.
- Sta3: Standing water with a CCI of 10-14, and a minimum species index score of 5.

#### *Swamp, marsh and fen*

Criteria for swamp, marsh or fen are recognised, variously based on size, species dominance, the plant indicator score, and the presence of important invertebrate assemblages defined by the CCI. The list of plant indicator species includes 61 species. Where the fish or invertebrate CCI and the plant indicator index is not sufficient for qualification when considered in isolation their consideration together may be sufficient to satisfy the criteria. The criteria are:

- Sw1: Wet reedbeds at least 0.5 ha in extent, where the vegetated element comprises at least 90% common reed.
- Sw2: Other swamp, marsh, or fen at least 0.5 ha in extent, with a minimum species index score of 8.
- Sw3: Other swamp, marsh or fen of high importance for their communities of invertebrates – Community Conservation Index (CCI) of 15 or above.

- Sw4: Other swamp, marsh or fen with a CCI of 10-14, and a minimum species index score of 5.

### *Mosaics*

The habitat mosaic category is most relevant where a collection of adjacent habitats fail to satisfy their respective individual criteria but when considered as a single unit they are of importance for their flora and/or fauna.

Their mosaic criteria are:

- Mos1: Areas of least 1.0 ha. that support a combination of two or more individual habitats, each with an index score that is no more than three points below the qualifying threshold.
- Mos2: Areas of at least 0.1 ha. that add to the wildlife value of adjacent land qualifying for LWS designation on habitat grounds.
- Mos3: Linear features no more than 500 m long connecting sites of LWS status.
- Mos4: Areas of at least 1.0 ha that support at least one individual habitat with an index score below the qualifying threshold, with a suite of additional features.

A summary list of habitats and their Local Wildlife Site qualifying criteria is presented in Table 1 below.

**Table 1:** Summary of habitats and their qualifying features

Habitat	Qualification	Summary description	Qualifying feature
Woodland and parkland	WD1	Semi-natural ancient woodland	Listing in Ancient Woodland Inventory
	WD1a	Plantations on ancient woodland sites	Listing in Ancient Woodland Inventory
	WD2	Semi-natural ancient woodland	Not included in Ancient Woodland Inventory but with characteristics of semi-natural ancient woodland and species index score of 10
	WD3	Other woodland	Minimum species index score of 10
	WD4	Wet woodland	Minimum species index score of 6 for woodland plants and species index score of 6 for swamp, marsh and fen plants
	WD5	Parkland or wood pasture	At least 1 ha in extent with a veteran tree
	WD6	Traditional orchard	5 or more standard fruit and/or nut trees with crown edges no more than 20 m apart
Grassland	NG1	Neutral grassland	At least 0.1 ha in extent or 50 m long for linear habitats with a minimum species index score of 8
	CG1	Calcareous grassland	At least 0.1 ha in extent or 50 m long for linear habitats with a minimum species index score of 8

Habitat	Qualification	Summary description	Qualifying feature
Heathland and acid grassland	HE1	Heathland	At least 0.1 ha in extent or 50 m long for linear habitats with at least 10% cover by heathers
	HE2	Other heathland or acid grassland	At least 0.1 ha or 50 m long for linear habitats with a minimum species index score of 8
Acid peatland	AP1	Acid peatland	Minimum species index score of 5
	AP2	Buffer land	Importance to adjacent peatland for protection of hydrological conditions
Purple moor grass and rush pasture	PMG1	Purple moor grass and rush pasture	Minimum species index score of 8
Fresh water	Flo1	Springs, flushes, and headwaters and winterbournes	Fish or invertebrate community conservation score of 15 or above
	Flo2	Rivers, streams, canals, and ditches of high importance for fish or invertebrates	Fish or invertebrate community conservation score of 15 or above
	Flo3	Rivers, streams, canals, and ditches of high importance for plants	Minimum species index score of 10
	Flo4	Flowing water with importance for both plant and fish or invertebrates	Fish or invertebrate assemblages with a community conservation score of 10-14 and minimum plant species index score of 6



Habitat	Qualification	Summary description	Qualifying feature
	Flo5	Blow wells	All groundwater uprisings under artesian pressure
	Sta1	Standing water of high importance for fish or invertebrates	Fish or invertebrate community conservation score of 15 or above
	Sta2	Standing water of high importance for plants	Minimum plant species index score of 8
	Sta3	Standing water of high importance for plants and fish or invertebrates	Fish or invertebrate assemblages with a community conservation score of 10-14 and minimum plant species index score of 5
Swamp, marsh or fen	Sw1	Wet reedbeds	At least 0.5 ha in extent with at least 90% common reed
	Sw2	Swamp, marsh or fen of importance for plants	At least 0.5 ha in extent with a minimum plant species index score of 8
	Sw3	Swamp, marsh or fen of importance to invertebrates	Invertebrate community conservation score of 15 or above
	Sw4	Standing water of high importance for plants and fish or invertebrates	Fish or invertebrate assemblages with a community conservation score of 10-14 and minimum plant species index score of 5
Mosaics	Mos1	Mosaics	At least 0.1 ha in extent with 2 or more habitats with an index score no more than 3 below individual qualifying thresholds

Habitat	Qualification	Summary description	Qualifying feature
	Mos2	Mosaics	At least 0.1 ha in extent that add value to adjacent land meeting qualifying for LWS designation on habitat criteria
	Mos3	Mosaics	Linear features less than 500 m long connecting sites of LWS status
	Mos4	Mosaics	At least 1.0 ha in extent supporting at least one habitat below the relevant index score threshold but with a suite of additional features

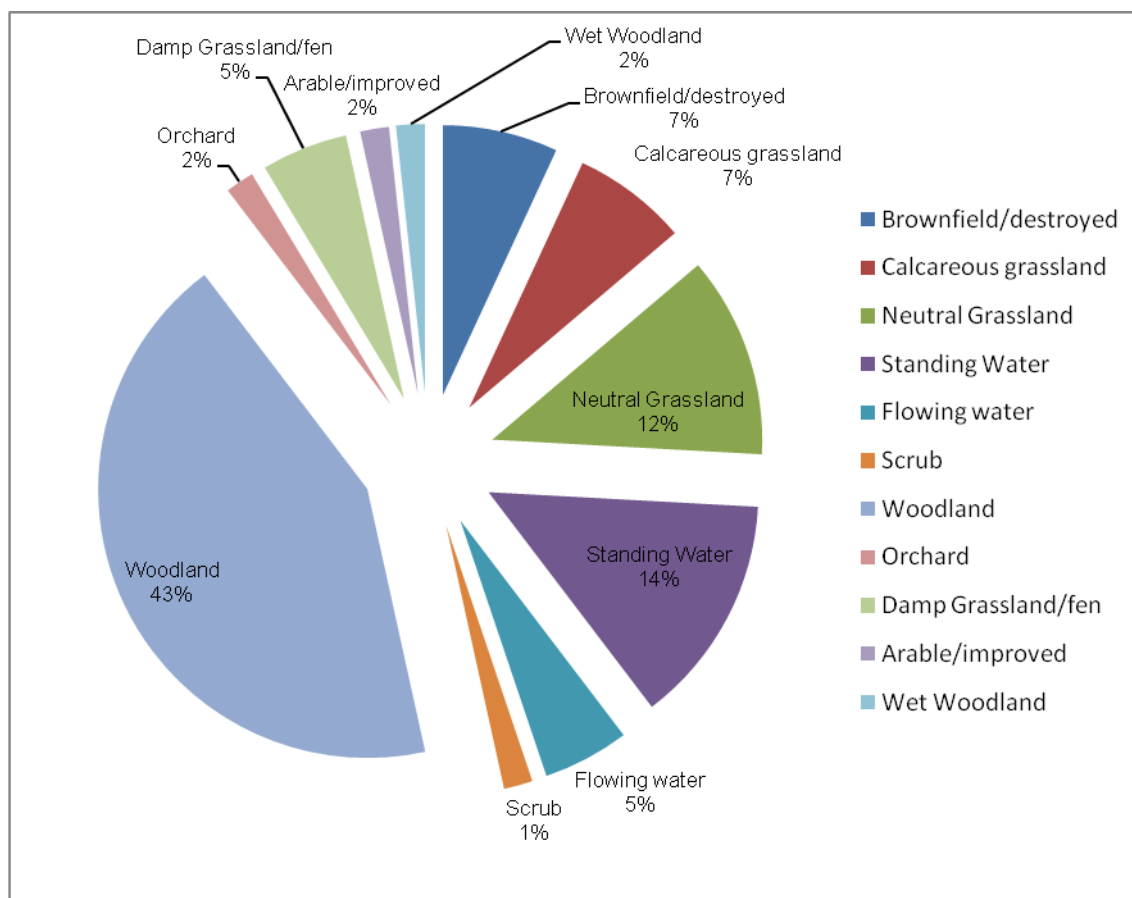
## 4. Results

Of the 58 sites scheduled for survey in 2009, 54 were surveyed in full and a further one was surveyed from adjacent land. It was not possible to survey the remaining three sites due to access being denied and as such they are not considered in the following analysis. Thus a total of 55 sites were surveyed during the 2009 season.

The full results of the survey are presented in Appendix 4 which includes a site record sheet, plant species list, site summary and boundary map for each of the sites surveyed. Some of the larger sites were split into two or more sub-units and in these cases each sub-unit has its own record sheet and plant species list.

The breakdown of main habitat types across the 55 sites surveyed is shown in Figure 1 (Note: of these sites three had two main habitat types and in the graph below both habitats are listed separately).

**Figure 1:** Main habitats recorded during the survey



In addition to the main habitat(s), most sites also supported one or more subsidiary habitat (e.g. ponds or grassy rides within a woodland, or scrub and ruderal habitats within a predominantly grassland site). These were identified where appropriate on the record sheet.

Of the woodland sites, the majority (80%) were considered to contain ancient woodland (i.e. woodland that has existed since at least 1600 AD), as they are listed in Natural England's Ancient Woodland Inventory. The ancient woodland sites were in most cases being actively managed and in a generally sympathetic way. On some of the ancient replanted sites, exotic conifers were gradually being removed in favour of native broadleaved trees (e.g. Strunch Hill Wood and Stapleford Wood). Sycamore *Acer pseudoplatanus*, cherry laurel *Prunus laurocerasus* and snowberry *Symphoricarpos albus* were identified as potential problem species in a number of the secondary woodlands and rhododendron *Rhododendron ponticum* was invasive in some of the more acid woodlands in the west of the district. Additionally, the rearing of pheasants in woodland appears to be having a significant negative effect on the flora of many sites across the district.

Of the grassland habitats, neutral grassland was the most widespread, though calcareous grassland was also frequently encountered. The quality of grasslands varied greatly, with many having been agriculturally improved to some extent over the intervening years since the previous surveys used for their designation as County Wildlife Sites, and therefore being of lower conservation value than they might have previously been (e.g. Walcot Grassland). Overgrazing was also apparent in some cases (e.g. North Rauceby Medieval Village), whereas on other sites grazing and scrub removal are urgently needed to preserve fragments of grassland habitat (e.g. acid grassland at Teal Lake, Whisby and calcareous grassland at Rauceby Quarry). Well managed grassland sites were rather rare and where they occurred it was usually by accident rather than by design (e.g. calcareous grassland at Beacon Hill Railway Cutting and Cliff Farm Footpaths), although a number of good sites appear to be managed specifically for conservation, such as Donkey Close Meadow (damp grassland around seasonal pools). Tor grass *Brachypodium pinnatum* was one of the most common calcareous grassland dominants and in some cases it appeared that this was increasing at the expense of other more species diverse calcareous grassland communities. Some of the grassland sites, although they appear to have lost interest since previous surveys, could be restored

with changes to their management regimes and efforts should be made to support landowners in this. Waneham Bridge Meadow, for example, has lost much of its interest due to the lowering of the local water table and reduction in winter flooding; the landowner has expressed interest in maintaining the area for wildlife and it is recommended that attempts are made to raise the water table.

Heathland and acid grassland are rare habitats in North Kesteven, being found only as subsidiary habitats within other habitat types in the current survey. Some of the woodlands supported scattered heathers (*Calluna vulgaris* and *Erica* spp.), but never of sufficient extent to be classified as true heathland. Of particular note was Stapleford Moor, which is a plantation on an old heathland site: it retains some heathland/acid grassland interest along its rides and in clearings. The nearby Stapleford Wood also has some interest in this respect and sites in the Whisby Pits Complex contain examples of acid grassland habitat. No true acid peatland habitats were encountered although both Stapleford Wood and Stapleford Moor have a suite of indicator species for this habitat. Stapleford Moor, in particular, has great potential for the restoration of heathland/acid grassland, requiring only felling and low-intensity grazing to re-create a significant natural asset. Much of the Whisby area is also suitable for heathland restoration.

Freshwater habitats occurred in various forms, from large open water bodies on former gravel extraction sites to ponds and drains. The overwhelming majority are of conservation interest, though few are actively managed for nature conservation, the main exception being the various freshwater habitats within Whisby Pits Complex. The exotic New Zealand pigmyweed *Crassula helmsii* was recorded at the various sites within this complex – this highly invasive species poses an increasing threat to other wetland sites in the vicinity, as well as the flora of the sites where it already exists, and as such its eradication should be considered of paramount importance.

Swamp, marsh and fen habitats occurred occasionally as main habitats but were also common as subsidiary habitats in conjunction with, for example, freshwater, neutral grassland or woodland. Wherever they occurred they added to the overall conservation value of the site. Cobbler's Lock, Sedge and Reed Beds was the only site supporting reedbed habitat, although not extensively. This site was also the only site considered to support fen habitat.

### *Constraints*

In most cases, the survey was confined to a single visit. The plant lists should therefore not be treated as comprehensive, but rather as a representative list of species evident at the time of survey. Timing of the survey will be a particular constraint for species that flower early in the season and then disappear (e.g. some woodland ground flora species).

Obtaining access permission for some sites proved to be a lengthy process and as a result some sites could not be surveyed until October. This is outside the normal survey season and this should be borne in mind when assessing the results for these sites.

Surveys of some of the grassland sites were constrained by hay cuts having recently taken place or the sward being closely grazed.

Terrain and vegetation proved a constraint in a few cases, particularly on one site which was bordered by waterways and a train line.

Surveys of the active railway sites were constrained by Network Rail requirements for a safe system of working.

### *Noteworthy species*

A number of noteworthy species were recorded during the survey and these are listed in Table 2 below. Of these, the most significant are the records of the local sub-species of yellow archangel *Lamium galeobdolon* ssp. *galeobdolon* from Bottom Barff, Burnt Wood and Strunch Hill Wood, a plant that is listed as Vulnerable in the latest vascular plant red data list for Great Britain (Cheffings & Farrell 2005). Flat-stalked pondweed *Potamogeton friesii* is listed as Near Threatened. All other species listed here are listed by JNCC as Least Concern.

**Table 2:** Noteworthy plant species

Common name	Scientific name	Site	Grid reference
Green-ribbed sedge	<i>Carex binervis</i>	Stapleford Wood	SK 860 563
Yellow sedge	<i>Carex viridula</i> ssp. <i>oedocarpa</i>	Stapleford Wood	SK 860 563
Yellow sedge	<i>Carex viridula</i> ssp. <i>oedocarpa</i>	Stapleford Moor	SK 865 587
Small teasel	<i>Dipsacus pilosus</i>	Blankney Wood	TF 109 619
Bell heather	<i>Erica cinerea</i>	Stapleford Moor	SK 865 587
Water violet	<i>Hottonia palustris</i>	North Kyme Common (S)	TF 149 532
Yellow archangel	<i>Lamiastrum galeobdolon</i> ssp. <i>galeobdolon</i>	Bottom Barff	TF 073 655
Yellow archangel	<i>Lamiastrum galeobdolon</i> ssp. <i>galeobdolon</i>	Burnt Wood	TF 070 662
Yellow archangel	<i>Lamiastrum galeobdolon</i> ssp. <i>galeobdolon</i>	Strunch Hill Wood	SK894704
Venus's-looking-glass	<i>Legousia hybrida</i>	Cliff Farm Footpaths	TF 02275 69045
Flat-stalked pondweed	<i>Potamogeton friesii</i>	Teal's Poplar Plantation (west)	SK 918 669
Trailing tormentil	<i>Potentilla anglica</i>	Stapleford Moor	SK 865 587
Lesser spearwort	<i>Ranunculus flammula</i>	Donkey Close Meadow	SK 895 702
Lesser spearwort	<i>Ranunculus flammula</i>	Waheham Bridge Meadow	
Pond water-crowfoot	<i>Ranunculus peltatus</i>	Stapleford Wood	SK 860 563
Bog stitchwort	<i>Stellaria uliginosa</i>	Stapleford Wood	SK 860 563
Bog stitchwort	<i>Stellaria uliginosa</i>	Stapleford Moor	SK 865 587
Fungus: Ugly milk-cap	<i>Lactarius plumbeus</i>	Wiseholme Holt	SK 928 709

### National Indicator 197

A total of 19 sites (33%) or parts thereof met one or more NI 197 indicator, as detailed in Table 3.

**Table 3:** NI 197

Site Name	NI 197 Indicator					
	Management Plan	Advice being followed	Woodland Grant Scheme	HLS	ELS	OEL
Stapleford Moor	x					
Beckingham Ranges					x	
Stapleford Wood	x					
Hawdin's Wood			x			
Fox Holt				x		
Whisby Stocking				x		
Donkey Close Meadow				x		
Strunch Hill Wood				x		
Mr Neville's Pits East, Whisby Pits Complex				x		
Ash Lound & Brick Kiln Holt				x		
Haceby Little Wood					x	
Haceby Great Wood					x	
Newton Wood					x	
Aswarby Thorns			x			
Cliff Farm Footpaths					x	
Meadow East of Rauceby Warren				x		
Potterhanworth Wood West			x	x		
Burnt Wood				x		
Martin Wood				x		



## 5. Recommendations

Of the total of 58 sites scheduled for survey during 2009, three could not be assessed; Woodgate Farm, Woodgate House and Dunston Heath Old Quarry. It is therefore recommended that consideration of these sites is deferred until such a time as the landowner's permission can be obtained and a full survey can be carried out.

Of the 55 sites surveyed in 2009, a total of 42 (76%) were evaluated as satisfying the requirements for Local Wildlife Sites on one or more criteria, including main and additional habitats. These sites are therefore recommended for designation as Local Wildlife Sites.

This includes all of the six large sites recommended for further surveys in order to provide greater detail about the species distribution across the site (Stapleford Wood, Stapleford Moor, Beckingham Ranges, Cliff Farm Footpaths, North Kyme common North and North Kyme Common South), as well as one of the three sites that were recommended for resurvey due to a late survey carried out in 2008 (Waddington Grassland-Viking Way). The latter qualified on the basis of the two years results combined and did not satisfy the requirements for Local Wildlife Site designation on any one year alone.

A list of the sites recommended for designation as Local Wildlife Sites and the main habitat criteria under which they qualify appears in Table 4 below.

**Table 4:** Sites recommended for designation as Local Wildlife Sites

Grid Square	Site Name	Habitat Qualification
SK85	Stapleford Moor	HE2
SK85	Beckingham Ranges	NG1
SK85	Stapleford Wood	WD1/1a
SK86	Hawdin's Wood	WD1/1a
SK86	Fox Holt	WD1/1a
SK86	Whisby Stocking	WD1/1a
SK87	Donkey Close Meadow	NG1
SK87	Strunch Hill Wood	WD1/1a
SK95	Reeve's Plantation	Mos2

Grid Square	Site Name	Habitat Qualification
SK95	Old Wood, Leadenham	WD1/1a
SK95	Mill Farm Orchards, Welbourn	WD6
SK96	Pike Drain, Whisby	Flo3
SK96	Mr Nevile's Pits East, Whisby Pits Complex	Mos2
SK96	Jet Ski Lake, Whisby Pits Complex	Mos2
SK96	Compartment 19 East, Whisby Pits Complex	Mos2
SK96	Teal's Poplar Plantation West, Whisby Pits Complex	Mos2
SK96	Teal Lake, Whisby Pits Complex	Mos2
SK96	Butterley's Pit, Whisby Pits Complex	Mos2
SK96	Fischer's Tip, Whisby Pits Complex	Mos2
SK96	Fischer's Fishponds, Whisby Pits Complex	Mos2
SK96	Waddington Grassland (Viking Way)	NG1
SK96	Ski World, Whisby Pits Complex	Sta2
SK97	Ash Lound & Brick Kiln Holt	WD1/1a
SK97	Wiseholme Holt	WD1/1a
TF03	Haceby Little Wood	WD1/1a
TF03	Haceby Great Wood	WD1/1a
TF03	Newton Wood	WD1/1a
TF04	Aswarby Thorns	WD1/1a
TF06	Cliff Farm Footpaths	CG1
TF06	Waneham Bridge Meadow	Sw2
TF06	Long Holt East	WD1/1a
TF06	Potterhanworth Wood West	WD1/1a
TF06	Top Barff	WD1/1a
TF06	Burnt Wood	WD1/1a
TF06	Bottom Barff	WD1/1a
TF14	Beacon Hill Railway Cutting	CG1
TF14	Cobbler's Lock Sedge and Reed Beds	Sw2
TF14	Evedon Wood	WD1/1a
TF15	North Kyme Common (S)	Flo3
TF15	North Kyme Common (N)	Sw2
TF15	Martin Wood	WD1/1a
TF16	Blankney Wood	WD1/1a

By main qualifying habitat, these break down as follows (Table 5):

**Table 5:** Main qualifying habitat

Broad habitat	Habitat qualification	No. of sites qualifying	% of all sites surveyed (55)
Woodland	WD1/1a	20	36
Orchard	WD6	1	2
Neutral grassland	NG1	3	5
Calcareous grassland	CG1	2	4
Heathland/ Acid Grassland	HE2	1	2
Flowing water	Flo3	2	4
Standing water	Sta2	1	2
Swamp, marsh & fen	Sw2	3	5
Mosaic	Mos1/2	9	16
<b>Total</b>		<b>42</b>	<b>76</b>

Of the 42 sites qualifying as LWS, 10 (23%) satisfy more than one criterion due to the presence of additional habitat types within the site. A list of all of the sites, indicating the criteria under which they qualify and giving the indicator species totals for each, appears in Appendix 3.

A total of 13 sites did not meet any of the Local Wildlife Sites criteria on the basis of the results of the current survey (Table 6). Of these, it is considered that three sites – one freshwater, one grassland and one woodland - might qualify if additional surveys were carried out at a more appropriate time of year. These sites are listed in Table 7 and it is recommended that additional survey visits are made to these sites before making a final assessment as to whether or not they merit designation as Local Wildlife Sites.

Pyewipe Junction could not be directly surveyed because the site was physically inaccessible, although permission was granted. However this site is believed to have changed little since its original designation, and due to its difficulty of access, must be rarely disturbed by people. As such this site is likely to satisfy the criteria for designation, although the absence of a suitable survey precludes it from qualifying at this time.

**Table 6:** Sites which do not meet LWS criteria on the basis of the current survey

Grid square	Site name
SK96	Birch Lake, Whisby Pits Complex
SK96	Pillwort Gorse, Whisby Pits Complex
SK96	Little Meadow Close
SK96	Waddington Pasture
SK96	Black's hillside (Waddington Pasture 2)
SK97	Skellingthorpe Pump Drain
SK97	Pyewipe Junction
TF03	Walcot Grassland
TF04	North Rauceby Mediaeval Village
TF04	Rauceby Quarry
TF04	Meadow East of Rauceby Warren
TF04	Sleaford Ballast Pit
TF06	Oak Holt, Blankney

**Table 7:** Sites which merit additional survey

Grid square	Site name
SK97	Skellingthorpe Pump Drain
TF04	North Rauceby Mediaeval Village
TF06	Oak Holt, Blankney

Of the 42 sites which are recommended for designation as Local Wildlife Sites, seven were considered to require boundary modifications, either to the SNCI boundary shown on the GIS layer or the County Wildlife Site (CWS) boundary indicated in the Local Plan. This was to exclude land which no longer merited inclusion, either because it was built on or had otherwise lost its ecological value. The sites where boundary changes are recommended are listed in Table 8 and the relevant modifications shown on the site plans in Appendix 4.

**Table 8:** Candidate Local Wildlife Sites requiring boundary modifications

Grid square	Site name	Proposed modification
SK85	Beckingham Ranges	Boundary modification to exclude areas of the CWS that are not within the MOD ranges.

Grid square	Site name	Proposed modification
SK85	Stapleford Moor	Boundary modification to exclude a quarry area in the north.
SK85	Stapleford Wood	Boundary modification to exclude a small non-woodland area in the south-east.
SK95	Reeve's Plantation	Include within the modified boundary of Cranwell Grassland.
SK96	Teal's Poplar Plantation, Whisby Pits Complex	Boundary modification to exclude the areas outside the CWS.
SK96	Fisher's Tip, Whisby Pits Complex	Boundary modification to exclude the areas outside the CWS.
SK96	Waddington Grassland (Viking Way)	Boundary modification to exclude the area of housing towards to south of the site

## 6. Conclusion

An ecological survey of 55 priority sites in North Kesteven has been carried out and the results used to identify those that potentially qualify for designation as Local Wildlife Sites.

An additional three sites were not surveyed during 2009 due to access permission being denied.

The following broad habitats, as defined in the Local Wildlife Site selection guidelines (Lincolnshire Biodiversity Partnership 2006) were recorded during the survey:

- Woodland
- Scrub
- Orchard
- Neutral grassland
- Calcareous grassland
- Freshwater
- Damp grassland & fen
- Arable/improved grassland
- Brownfield/destroyed

Some 42 sites (76% of the total) were evaluated as meeting one or more of the Local Wildlife Site selection criteria. Of these 20 qualified under woodland criteria (WD1/1a), three under neutral grassland (NG1), two under calcareous grassland (CG1), one under heathland/ acid grassland (HE2), two under flowing water (Flo1), one under standing water (Sta2), three under swamp, marsh and fen (Sw2) and nine under habitat mosaics (Mos1, Mos2).

It is recommended that these 42 sites be given consideration by the Local Wildlife Sites Panel for designation as Local Wildlife Sites and subsequent incorporation into the Local Development Framework for North Kesteven. One site was physically inaccessible but it is unlikely to have changed in condition since the original surveys, although it cannot qualify for designation due to the lack of a survey. It is recommended that further survey work is carried out on an additional three sites before making a final assessment as to whether or not they merit designation as Local Wildlife Sites.

## 7. References

Cheffings, C.M. & Farrell, L. (Eds) (2005) *The Vascular Plant Red Data List for Great Britain*. Joint Nature Conservation Committee, Peterborough.

Defra (2006) *Local Sites. Guidance on their Identification, Selection and Management*. DEFRA, London.

Defra (2008) *Defra Guidance on the Improved Local Biodiversity Indicator (NI 197) - Proportion of Local Sites where positive conservation management has been or is being implemented*, Revised guidance note – December 2008, Defra, London.

Lincolnshire Biodiversity Partnership (2006) *Local Wildlife Sites: Guidelines for the Identification & Selection in the Historic County of Lincolnshire*. Lincolnshire Biodiversity Partnership, Horncastle.

Lincolnshire Biodiversity Partnership (2008) *Local Wildlife Sites: Guidelines for the Identification & Selection in the Historic County of Lincolnshire. Proposed Amendments*. Lincolnshire Biodiversity Partnership, Horncastle.

Joint Nature Conservation Committee (1993) *Handbook for Phase 1 Habitat Survey: A Technique for Environmental Audit*. Joint Nature Conservation Committee, Peterborough.

Peterken, G. (2000) Identifying Ancient Woodland Using Vascular Plant Indicators. *British Wildlife* **11**, 153-8.

Appendix 1: Project Brief



NORTH KESTEVEN  
LOCAL WILDLIFE SITES REVIEW  
PROJECT BRIEF



11 March 2008

North Kesteven District Council  
District Council Offices  
Kesteven Street  
Sleaford  
Lincolnshire  
NG34 7EF

## Project Brief

### North Kesteven Local Wildlife Sites Review

#### Background

1. North Kesteven District Council is in the early stages of preparing a Local Development Framework (LDF) for the District. It is important that the policies in the LDF are drawn up on a sound basis to truly represent the unique needs and characteristics of the District. To do this, the Council needs robust evidence on which to base its policies and proposals and to monitor the effect of the LDF over time. The Government's Planning Policy Statement 12 (Local Development Frameworks) (PPS12) reinforces the need for a robust evidence base.
2. Planning Policy Statement 9 (Biodiversity and Geological Conservation) (PPS9) and its companion guide are the primary national policy documents for biodiversity and planning. One of the key principles of PPS9 is that development plans should be based upon up-to-date information about the environmental characteristics of their area.
3. Locally, the Lincolnshire Biodiversity Action Plan (BAP) is a key document. The Lincolnshire BAP includes Action Plans and two of the key actions in respect of Local Wildlife sites are to resurvey all existing Sites of Nature Conservation Importance (SNCIs) to assess them against Local Wildlife Site criteria by 2010; and to identify and survey potential new Local Wildlife Sites by 2015. This is also a Local Area Agreement (LAA) target.
4. At a national level, DEFRA has produced "Local Sites: Guidance on their Identification, Protection and Management" in 2006 and in July 2006 "Local Wildlife Sites: Guidelines for their Identification and Selection in the Historic County of Lincolnshire", was published by the Wildlife Sites Review Group (a sub-group of the Lincolnshire BAP Partnership).

## The Project Brief

5. North Kesteven is one of seven districts in Lincolnshire and is a predominantly rural area in the centre of the County. It covers an area of 92,000 hectares or 356 square miles, of which 90% is classified as agricultural land.
6. In the North Kesteven Local Plan, there are 44 sites designated as County Wildlife Sites, (essentially the same as SNCIs), of which two are Local Nature Reserves. Also within the Local Plan are seven sites designated as Sites of Special Scientific Interest (SSSIs). These sites have been incorporated into the adopted North Kesteven Local Plan 2007.
7. The Lincolnshire Wildlife Trust has produced a list of existing and candidate wildlife sites within the district. In total, there are 258 existing and candidate wildlife sites identified by the Lincolnshire Wildlife Trust within North Kesteven. Excluding SSSIs, there are a total of 251 sites to be surveyed. A full list of all sites can be found in Appendix A, including Regionally Important Geological and Geomorphological sites (RIGS) and Protected Road Verges (PRV).
8. The Council is seeking a review of all wildlife sites identified in Appendix A with the exception of SSSIs. The survey is expected to provide the underlying baseline evidence of the type, range, scarcity and fragility of habitats in North Kesteven and is to include the review of existing and candidate wildlife sites.
9. The consultants will be required to lead and undertake a review of the status and integrity of those designated and candidate wildlife sites in North Kesteven that are not protected at a higher level. The consultants should:
  - Carry out a “Phase 1” habitat survey of these sites and their immediate environs. Using the selection criteria set out in “Local Wildlife Sites: Guidelines for their Identification and Selection in the Historic County of Lincolnshire” 2006, (see link in paragraph 4 above), the consultant should assess any boundary changes needed, and identify and provide evidence for those sites which continue to be of sufficient wildlife value to be designated as Local Wildlife Sites.
  - To this end, the consultants shall provide, for each site, a schedule with accompanying updated or amended site plan, setting out the species, habitats or features judged to be of interest to provide the data required by the Wildlife Sites Review Group. The Lincolnshire Guide contains a methodology that the consultants would be expected to follow. However,

the consultants are expected to provide a detailed methodology of how this will be carried out as part of the tender submission.

- Data should be provided in a suitable format for the Lincolnshire Environmental Records Centre and the format should be agreed with the Manager of the Records Centre.

10. The consultant will be responsible for identifying and obtaining the consent of landowners/occupiers to access the sites for survey purposes and for informing the landowners/occupiers of the outcome of the surveys.

### **Interim and Final Report**

11. Given the length of time the study is likely to take, the Council wishes the consultant to quote separately for the cost of producing an interim report after the first year of the study. The interim report should follow the format of the main report, the requirements of which are outlined below. This to enable the Council to review the progress of the work undertaken in the first year, that is by the end of 2008.
12. The consultant will be responsible for preparing a final report and appendices, setting out all the field data and other data collected by the study and the recommendation regarding the status and future designation of each site, existing and candidate. The evidence contained in the report will need to be clear, transparent and robust enough to survive the LDF Public Examination process. It is therefore important that the survey results, in terms of descriptions and species lists, should be accompanied by coloured plans on an ordnance survey base with notes for each site. Each site assessment should conclude with a clear recommendation to the Council as to whether the site should be designated as a Local Wildlife Site for the emerging North Kesteven LDF.
13. The final report shall be accompanied by an Ordnance Survey based plan in digital mapping format compatible with the GIS systems of the Council (Map Info) and the Lincolnshire Environmental Records Centre.
14. The final end date is the date by which a finished report, appendices and digital maps must be provided to the Council in electronic format (PDF/Map Info) and two bound paper copies. However, it will be necessary for an electronic draft of the Report/Appendices to have been provided to the Council at least three working

weeks prior to the proposed end date, in order for the Council's officers to consider the draft and provide any further information and feedback to the consultant prior to one week before the proposed end date.

15. The field data and other relevant data, in both paper and digital format, will need to be made available to North Kesteven District Council, Lincolnshire County Council and the Lincolnshire Environmental Records Centre.
16. The final report should be delivered to the Council by 30<sup>th</sup> November 2009. This enables the information to be used for the ongoing work on the Local Development Framework and in determining applications for planning permission.

### **Examination**

17. The Council requires the consultant to lead and undertake the biodiversity study as a whole, which must be prepared with a view to it providing a sound basis for the consideration of the Local Development Framework at Examination. At this stage the Council does not envisage asking the consultant to appear at any Examination, but the possibility of this must be taken into account in preparing the report and appendices. If attendance at the examination should be required, the fee will be negotiated at a daily/hourly rate.

### **Submission to the Wildlife Sites Review Group**

18. The Council requires that the consultant will provide sufficient evidence to the Wildlife Sites Review Group to support its recommendations to either promote sites as Local Wildlife Sites or to remove their designated or candidate status. At this stage, it is not anticipated that the consultant will be required to attend the Wildlife Sites Review Group to present evidence but the possibility of this must be taken into account in preparing the report and appendices. If attendance at the above meeting should be required, the fee will be negotiated at a daily/hourly rate.

### **The Tender**

19. The charges set out in the tender must include the consultant's time involved in collating existing information; collecting landowners details and consents, visiting the sites and carrying out survey work; drawing up the schedules for the sites; supplying this information to the landowners/occupiers of the sites; preparing the

final report and appendices and submitting an electronic copy and two paper copies of the final report and appendices to North Kesteven District Council, and the Lincolnshire County Council and the Lincolnshire Environmental Records Centre (this includes the printing cost for the paper copies of the final Report and appendices). The charges must also include administration and other incidental costs.

20. The consultant must have a method of quality control to ensure that the work undertaken and the output produced meet the client's requirements and meet statutory and good practice guidance so as to ensure that any LDF policies produced as a result of the survey are sound. Tenders will need to give a brief outline of how quality control will be addressed by the consultant.
21. If at any stage, the Council were to consider that the consultant were not meeting the Council's requirements then the matter must be the subject of a meeting between the Council and the consultant in order to seek to resolve the matter. If the matter could not be resolved to the agreement of both parties, or if the problem were to re-occur then the Council would be entitled to terminate the commission.
22. The consultant must ensure that they do not have any other contracts where there would be a conflict of interest. In addition, the appointed consultants must safeguard the confidentiality of any data supplied for the purposes of the study.
23. The tender should include any cost increase likely in the second year of the study.
24. The Council must receive tenders no later than midday on the 2nd April 2008.

Appendix 2: Recording Forms

# Site Survey Form

Site name	Grid reference	<b>Lincolnshire Environmental Records Centre</b>
Site sub-division	Date	
Recorder(s)	Time on site	
	hrs mins	

## Habitats (M = main, A = additional)

Woodland – semi-nat / plantation	
Wet Woodland	
Parkland / Wood-pasture / Orchard	
Scrub – scattered / dense	
Neutral Grassland – Unimp / Semi-imp	
Calcareous Grassland – Unimp / Semi-imp	
Acid Grassland – Unimp / Semi-imp	
Damp Grassland / Marsh / Fen	
Purple Moor Grass and Rush Pasture	
Heathland / Acid Peatland	
Bracken	

Running Water	
Spring / Flush / Blow Well	
Standing Water / Pond	
Reedbed	
Grazing Marsh	
Sand Dune / Saline Lagoon	
Saltmarsh / Mudflat	
Brownfield Mosaic	
Ruderal	
Arable / Improved Grassland	

## Constraints

Early / Late survey	
Short visit / Weather	
Hay cut	
Terrain / Vegetation	
Dogs / Grazing / Game	

## NI 197

Management Plan	
Advice being followed	
Woodland Grant Scheme	
HLS / ELS / OEL	

## Site description (including fauna; rare/notable spp (with grid refs.); etc – note if supplementary sheets attached)

## Additional features

Veteran / pollarded trees	
Planted specimen trees	
Standing / fallen dead wood	
Sap runs on / holes in trees	
Tussocky vegetation	
Abundant nectar sources	
Structural diversity	

Anthills	
Bare ground	
Rock outcrops	
Steep slopes	
South facing slopes	
Ridge and furrow	

Areas with frequent / prolonged flooding	
Seasonally wet / damp areas	
Earthworks / hummocky ground	
Ditches – shallow / deep	
Hedgerows – spp rich / poor	
Access / visibility	
Educational potential	

## Management

Appropriate management	
Inappropriate management	
Scrub encroachment	
Scrub removal	
Coppicing / selective felling	
Re-planting – native / non-native	
Ride mowing (woodland)	
Non-intervention (woodland)	

No grazing / cutting	
Grazing by cattle	
Grazing by sheep	
Grazing by horses	
Grazing by rabbits	
Other grazing	
Poaching	
Controlled burning	

Silage / hay / hay with grazing	
Mowing and non-removal	
Frequent short mowing	
Fertiliser / pesticide / herbicide use	
Excessive drainage	
Off-road vehicle damage	
Fly tipping / pollution / fires	
Invasive species	



# BSBI Recording Form

<div> <div> <div>Grid Reference</div> <div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div> <div>Tetrad</div> </div> <div> <div>Vice County</div> <div> <div></div> <div></div> <div></div> <div></div> </div> </div> </div>										<div>The Name of the Locality</div> <div></div>										<div>Route Map</div>																													
<div>Date</div> <div> <div></div> <div></div> <div></div> <div></div> </div> <div> <div>8</div> <div>6</div> <div>4</div> <div>2</div> <div>0</div> </div> <div> <div>e</div> <div>d</div> <div>c</div> <div>b</div> <div>a</div> </div> <div> <div>j</div> <div>i</div> <div>h</div> <div>g</div> <div>f</div> </div> <div> <div>p</div> <div>n</div> <div>m</div> <div>l</div> <div>k</div> </div> <div> <div>u</div> <div>t</div> <div>s</div> <div>r</div> <div>q</div> </div> <div> <div>z</div> <div>y</div> <div>x</div> <div>w</div> <div>v</div> </div> <div> <div>0</div> <div>2</div> <div>4</div> <div>6</div> <div>8</div> </div>										<div>Habitat</div> <div></div>										<div>Recorder(s)</div> <div></div>																													
<div>Species</div>										<div>Locality</div>										<div>Grid Reference</div>										<div>Date</div>										<div>Notes</div>									



Appendix 3: Summary of Results

North Kesteven Candidate Local Wildlife Sites 2009

**SNCI** Site of Nature Conservation Importance  
**CWS** County Wildlife Site  
**LWT** Local Wildlife Trust Reserve

		Qualifying threshold					10	6+6	Orchard	8	8	8	5	10	8	8	#	Additional features	Management (appropriate /)	
Site name		Grid reference	Area	Status	Sub-site	WD1/1b	WD2/3	WD4	WD6	NG1	CG1	HE2	AP1	Flo3	Sta2	Sw2	Mos			
SK85	Woodgate Farm	SK875540, SK890542 & SK897541	41.53	SNCI	West, East & Central	Access refused														
	Woodgate House	SK890547, SK889540, SK895541 & SK889529	58.66	SNCI	North, East, South & West	Access refused														
	Beckingham Ranges	SK878554	227.34	SNCI (CWS)			4	4+10		10	4	10	8	10	10	9	2	Planted specimen trees. Fallen dead wood. Seasonally wet / damp areas. Deep ditches. Access. Educational potential.	✓	
	Stapleford Wood	SK860563	127.84	SNCI (CWS)	Whole site	✓	9	9+11		12	4	15	10	16	16	11		Planted specimen trees. Fallen dead wood. Seasonally wet / damp areas. Deep ditches.	✓	
					A	✓	3	3+3		6	1	12	10	5	5	3				
					B	✓	1			5	1	9	5	2	2					
					C	✓	1	1+1		2		7		2	2	1				
					D	✓	2	2+6		5		5	2	8	8	6				
					Other	✓	3	3+3		4	2	2		5	5	3				
		Stapleford Moor	SK865587	471.55	SNCI (CWS)		✓	9	9+5		6	5	15	10	16	16	11	1 (NG+CG)	Planted specimen trees. Fallen dead wood. Ant hills. Steep slopes. Ridge and furrow. Seasonally wet / damp areas. Deep ditches. Spp. poor hedgerows.	✓
		Hawdin's Wood	SK872604	49.66	SNCI		✓	15	15+7		9	1	5	2	4	4	7	1 (HE+Sw)	Tussocky vegetation, Abundant nectar sources, Structural diversity, Seasonally wet / damp areas.	
		Fox Holt	SK883696	4.07	SNCI		✓	8											Standing / fallen dead wood	
		Whisby Stocking	SK891688	5.27	SNCI		✓	13	13+1		2						1		Standing / fallen dead wood, Seasonally wet / damp areas.	
	Strunch Hill Wood	SK894704	8.63	SNCI		✓	22	22+4		3	1			3	3	4		Standing / fallen dead wood, Abundant nectar sources, Seasonally wet / damp areas.		
	Donkey Close Meadow	SK895702	0.93	SNCI			4	4+6		17	4	4		2	2	6		Veteran / pollarded trees, Tussocky vegetation, Abundant nectar sources, Structural diversity, Seasonally wet / damp areas, Earthworks / hummocky ground.		
SK95	Old Wood, Leadenham	SK956511	2.38	SNCI		✓	6			1	1							Veteran trees, Standing / fallen dead wood, Steep slopes, Seasonally wet / damp areas.		
	Mill Farm Orchards, Welbourn	SK974534	1.07	SNCI			5	5+2	✓	4	2					2		Pollarded trees, Tussocky vegetation, Abundant nectar sources, Structural diversity		
	Reeve's Plantation (now a sub-site of cranwell grassland)	SK993502	11.19	SNCI	Plantation		2			1	5						2	Standing / fallen dead wood. Tussocky vegetation. Structural diversity.	*	
SK96	Mr Neville's Pits East, Whisby Pits Complex	SK909668	11.36	CWS						6	3	5				2	1 (NG+HE) 2	Standing / fallen dead wood, Tussocky vegetation, Areas with frequent / prolonged flooding, Seasonally wet / damp areas.	✓	

	Qualifying threshold																	Additional features	Management (appropriate /
	Site name	Grid reference	Area	Status	Sub-site	WD1/1b	10 WD2/3	6+6 WD4	Orchard WD6	8 NG1	8 CG1	8 HE2	5 AP1	10 Flo3	8 Sta2	8 Sw2	# Mos		
SK96	Ski World, Whisby Pits Complex	SK915662	25.17	CWS			1	1+5		4	3	3	1	9	9	5	2	Planted specimen trees, Tussocky vegetation, Seasonally wet / damp areas.	
	Jet Ski Lake, Whisby Pits Complex	SK918662	7.78	CWS			2					1			1		2	Veteran / pollarded trees, Sap runs on / holes in trees, Steep slopes, South facing slopes.	
	Compartment 19 East, Whisby Pits Complex	SK920669	1.7	CWS						5	1	2				1	2	None	
	Pike Drain, Whisby	SK921666-SK928667	0.43	SNCI (CWS)			2	2+8		3	1			11	11	8	2	Abundant nectar sources, Steep slopes, Ditches.	
	Teaf's Poplar Plantation West, Whisby Pits Complex	SK921672	18.42	CWS			4	4+1		5	5	4		4	4	1	1 (NG+CG) 2	Standing / fallen dead wood, Structural diversity, Ditches – shallow.	
	Teal Lake, Whisby Pits Complex	SK923667	32.96	LWT Reserve (CWS)			2	2+3		7	3	6		5	5	3	1 (NG+HE+Sta) 2	Tussocky vegetation, Structural diversity.	*
	Birch Lake, Whisby Pits Complex	SK923670	7.74	none						Habitat destroyed									
	Pillwort Gorse, Whisby Pits Complex	SK928672	12.72	none						Habitat destroyed									
	Butterley's Pit, Whisby Pits Complex	SK929669	18.18	CWS			7	7+2		3	3	3	2	4	4	2	2	Tussocky vegetation, Abundant nectar sources, Structural diversity, Steep slopes.	*
	Fischer's Tip, Whisby Pits Complex	SK930672	10.34	CWS			5	5+2		3	3	6		3	3	2	2	Veteran trees, Bare ground, South facing slopes, Seasonally wet / damp areas.	
	Fischer's Fishponds, Whisby Pits Complex	SK932673	3.52	CWS			4	4+4		2	1	3		6	6	4	2	Bare ground, Steep slopes.	
	Little Meadow Close	SK952650	1.34	SNCI						4	1					2		Hedgerows – spp poor	
	Waddington Pasture (western site)	SK972640 (SK971639)	4.43	SNCI (CWS)						5	3	1		1	1	2		Standing / fallen dead wood. Tussocky vegetation. Ridge and furrow. Seasonally wet damp areas. Shallow ditches. Hedgerows.	
	Black's Hillside, Waddington (Eastern Site)	SK972646 (SK972639)	3.58	SNCI			2			3	4			2	2	1		Standing / fallen dead wood. Sap runs on/holes in trees. Tussocky vegetation. Structural diversity. Ridge and furrow. Seasonally wet damp areas. Hedgerows.	
	Waddington Grassland (Viking Way)	SK973645 (SK972646)	4.7	SNCI			1			9	4	2		2	2			Tussocky vegetation. Steep slopes. Seasonally wet / damp areas. Earthworks / hummocky ground. Hedgerows.	
SK97	Ash Lound & Brick Kiln Holt	SK909709	31.46	SNCI	Ash Lound	✓	7			1	1							Planted specimen trees, Standing / fallen dead wood, Tussocky vegetation.	
					Brick Kiln Holt		9							1	1		2	Standing / fallen dead wood	
	Wiseholme Holt	SK928709	11.94	SNCI		✓	10	10+1		2		1				1		Veteran / pollarded trees, Standing / fallen dead wood, Tussocky vegetation, Structural diversity, Seasonally wet / damp areas, Access / visibility.	✓
	Skellingthorpe Pump Drain	SK943720-SK952713	3.91	SNCI						4	1	1		4	4	2		Steep slopes	
	Pyewipe Junction	SK952719	3.83	SNCI										4	4	2		Standing / fallen dead wood, Tussocky vegetation, Areas with frequent / prolonged flooding, Seasonally wet / damp areas.	



	Qualifying threshold																	Additional features	Management (appropriate /)	
	Site name	Grid reference	Area	Status	Sub-site	WD1/1b	WD2/3	WD4	WD6	NG1	CG1	HE2	AP1	Flo3	Sta2	Sw2	# Mos			
TF03	Haceby Little Wood	TF033359	5.62	SNCI		✓	7	7+1		1						1		Veteran / pollarded trees, Standing / fallen dead wood, Tussocky vegetation, Seasonally wet / damp areas, Ditches.		
	Haceby Great Wood	TF038362	6.96	SNCI		✓	12	12+2		2	1			1	1	2		Veteran / pollarded trees, Standing / fallen dead wood, Tussocky vegetation, Seasonally wet / damp areas.		
	Newton Wood	TF042363	9.29	SNCI		✓	9	9+1		1				1	1	1		Tussocky vegetation, Earthworks / hummocky ground.	✓	
	Walcot Grassland	TF053345	4.62	SNCI						1	1			4	4	4		Tussocky vegetation, South facing slopes, Ridge and furrow, Seasonally wet / damp areas, Hedgerows – spp poor		
TF04	North Rauceby Medieval Village	TF018470	5.69	SNCI						5	2							Tussocky vegetation, Anthills, Steep slopes, South facing slopes, Earthworks / hummocky ground, Hedgerows – spp poor		
	Rauceby Quarry	TF032453	2.44	SNCI (CWS)			2			1	3							Standing / fallen dead wood, Rock outcrops, Steep slopes, South facing slopes, Seasonally wet / damp areas.	*	
	Meadow East of Rauceby Warren	TF036442	0.51	SNCI (adj SSSI)							2	2						Structural diversity, Bare ground.		
	Aswarby Thorns	TF077413	45.93	SNCI		✓	6			1		1		1	1	1		Standing / fallen dead wood, Sap runs on / holes in trees, Seasonally wet / damp areas.		
	Sleaford Ballast Pit	TF083450	8.27	none			3	3+4		3	2				3	3	4	Standing / fallen dead wood, Structural diversity.		
TF06	Waneham Bridge Meadow	TF052621	4.99	SNCI			1	1+9		3	1				6	6	9	Tussocky vegetation, Seasonally wet / damp areas, Hedgerows.	*	
	Dunston Heath Old Quarry	TF052633	7.91	SNCI		Access refused														
	Long Holt East	TF064653	1.16	SNCI (CWS)		✓	12			1								Veteran / pollarded trees, Planted specimen trees.		
	Potterhanworth Wood West	TF068666	21.27	none (adj SSSI)		✓	24	24+8		6		1			5	5	8	1 (NG+Sta)	Seasonally wet / damp areas, Hedgerows.	
	Top Barff	TF070652	4.63	SNCI		✓	13	13+1		2							1	Planted specimen trees, Seasonally wet / damp areas.		
	Burnt Wood	TF070662	12.92	SNCI		✓	21	21+4		5					1	1	4	Seasonally wet / damp areas		
	Bottom Barff	TF073655	9.82	SNCI		✓	12			1	1				3	3		Veteran / pollarded trees, Planted specimen trees, Standing / fallen dead wood, Seasonally wet / damp areas, Ditches.		
	Oak Holt, Blankney	TF097616	6.8	SNCI (CWS)			2	2+1		1	1				3	3	1	Standing / fallen dead wood		
	Cliff Farm Footpaths	TF007680 - TF025690	1.4	SNCI			1	1+3		8	9	1			5	5	8	Bare ground. Spp. poor hedgerows.		
TF14	Beacon Hill Railway Cutting	TF100440- TF106434	2.73	SNCI			1			10	10	1						Tussocky vegetation, Abundant nectar sources, Bare ground, Steep slopes, South facing slopes.		
	Evedon Wood	TF110483	31.93	SNCI		✓	12	12+6		7	2				4	4	6	1 (NG+Sw)	Veteran trees, Tussocky vegetation, Structural diversity, Ditches – shallow	

Qualifying threshold						10	6+6	Orchard	8	8	8	5	10	8	8	#	Additional features	Management (appropriate /
Site name	Grid reference	Area	Status	Sub-site	WD1/1b	WD2/3	WD4	WD6	NG1	CG1	HE2	AP1	Flo3	Sta2	Sw2	Mos		
TF14	Cobbler's Lock Sedge and Reed Beds	TF124497-TF143499	14.55	SNCI		4	4+9		2				8	8	9		Standing / fallen dead wood, Tussocky vegetation, Abundant nectar sources, Structural diversity, Areas with frequent / prolonged flooding, Seasonally wet / damp areas, Ditches, Hedgerows.	✓
TF15	Martin Wood	TF130591	11.15	SNCI		✓	18	18+10	3				6	6	10		Standing / fallen dead wood, Tussocky vegetation, Structural diversity, Seasonally wet / damp areas.	
	North Kyme Common (North Kyme End)	TF149532 - TF154542	7.68	SNCI		5			6	3			15	15	13		Tussocky vegetation. Seasonally wet / damp areas. Hedgerows - Spp. poor.	
	North Kyme Common	TF154542 - TF157548		SNCI		1	1+8		3				7	7	8	2	Tussocky vegetation. Seasonally wet / damp areas. Hedgerows - Spp. poor.	
TF16	Blankney Wood	TF109619	20.74	SNCI		✓	14	14+2	2						2		Standing / fallen dead wood, Tussocky vegetation, Abundant nectar sources, Structural diversity, Seasonally wet / damp areas.	

## Appendix 4: Individual Site Record Sheets

(See separate document: 2009 Appendix4 V4.doc)





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