



CFE County Priorities for Lincolnshire (including North & North East Lincolnshire).

Aim

This document has been drawn together by the CFE Local Liaison Group for Lincolnshire with input from all LLG members and their respective organisations. The aim is to ensure that all advisers and partners have a clear, concise and consistent message about the aims of CFE in Lincolnshire. This can then be used by farmers and landowners to ensure their actions deliver maximum benefit to the environment. The action undertaken on each farm may differ depending on the farm type and enterprise.

1. County Overview

For the purpose of a general geographical / landscape classification the county can be broken down into a number of National Character Areas:

- The **Lincolnshire Fens**: a distinctive, historic and human-influenced wetland landscape lying to the west of the Wash estuary, which formerly constituted the largest wetland area in England. The area is notable for its large-scale, flat, open landscape with extensive vistas to level horizons. The level, open topography shapes the impression of huge skies which convey a strong sense of place, tranquility and inspiration.
- The **Lincolnshire Coast & Marshes**: reclaimed salt marsh in the east of the county, north of the Fens & rising gradually in the west to the foot of the Wolds. The wide coastal plain can be divided into three sub-areas which run broadly parallel with the edge of the Wolds. To the west is the Middle Marsh which comprises a softly undulating arable landscape that gently climbs up to the foot of the Wolds at the ancient Barton Street. This is a more enclosed landscape containing a greater number of woodlands and hedgerows. To the east lies the Outmarsh, a land of rich pasture, including some remnants of ridge and furrow divided by narrow dykes with brackish water. Thirdly, the coastline itself is an area subject to continual erosion and accretion and, as a result, is vulnerable to high water and flooding.
- The **Central Lincolnshire Vale**: a tranquil, rural and sparsely settled landscape, largely used for agricultural production, mainly for the growing of arable crops, principally cereals. This is in spite of historically challenging soils and conditions. Its dominant 'boulder clay' derived soils underlain by mudstone bedrock lead to seasonably waterlogged conditions which, under natural unmodified conditions, support wet grasslands and woodlands; however, a history of agricultural improvement along with modern machinery and

agrochemicals have transformed the land and vastly increased its productivity.

- The **Lincolnshire Wolds**: a long, narrow band of rolling agricultural land dominated by a west-facing chalk escarpment approximately 50 m high. The area is characterised by a range of varied yet unified features including open, arable plateau hill tops, chalk escarpments, deep dry valleys with sinuous beech woods and isolated ash trees punctuating the skyline. The area is sparsely settled with many villages hidden within the folds of the landscape and modest country houses and farmsteads.
- The **Lincolnshire Edge (N & S)**: a prominent escarpment forming a major feature facing the Wolds. The Southern Lincolnshire Edge includes the area known locally as the Lincolnshire Heath; a large scale arable escarpment.
- The **Humberhead Levels** is a flat, low-lying and large scale agricultural landscape bounded to the west by the low ridge of the Southern Magnesian Limestone and to the east by the Yorkshire Wolds (north of the Humber) and the Northern Lincolnshire Edge with Coversands (south of the Humber). Included is the Isle of Axholme; an area of flat topography containing high grade agricultural land.
- The **Humber Estuary**; a low-lying estuarine landscape, with extensive stretches of intertidal habitats including mudflats, salt marsh and reedbeds, coastal dunes and wetlands along the side of the estuary. The adjacent land has largely been reclaimed, resulting in large fields bounded by ditches, which form high-quality arable cropping land. There is very little woodland in the rural areas, where the many ditches form important networks linking the few other semi-natural habitats.
- The **Trent and Belvoir Vales** is characterised by undulating, strongly rural and predominantly arable farmland, centred on the River Trent. A low-lying rural landscape with relatively little woodland cover, the area offers long, open views.
- The **Kesteven Uplands**: an undulating mixed farming landscape within a harmonious rural area of small, stone villages set in a pre-enclosure landscape. It contains a variety of ancient and commercial woodlands mingling with parklands and pockets of species-rich meadows, stream margins and road verges. with significant areas of woodland.

Source; Natural England; full descriptions of all Lincolnshire National Character Areas can be viewed at <http://www.naturalengland.org.uk/publications/nca/eastmidlands.aspx>

The total farmed area for Lincolnshire (484,219 ha) and North and North East Lincolnshire (70,860 ha) is 555,079 ha. The total county area = 695,900 hectares, therefore the proportion of farmed land in Lincolnshire is 79.76%. The average holding size across the county is 131ha.

Greater Lincolnshire is a predominantly arable county with arable cropping comprising 77% of the cropped area, horticulture 11%, permanent pasture / rough grazing 9% and temporary grassland 3% (source DEFRA Census 2010).

ELS take up in the county has been healthy. During the first phase of CFE, target in field arable options rose from 3,385 ha in July 2009 to 5766 ha by November 2012.

2. County designated sites

At a landscape scale, the county has one nationally protected landscape; the Lincolnshire Wolds Area of Outstanding Natural Beauty.

The Wash and Humber Estuary are each designated as Special Protection Areas for Birds and Ramsar Sites. Some of the bird species which are key to the designations (eg pink footed goose, shelduck and golden plover) are reliant on farmland, at least in part, to complete their life cycles.

There are a large number of SSSIs and SAMs spread across the farmed landscape of the county, although Lincolnshire notably has less SSSI in farmed landscape than most of the rest of the country . Of these, perhaps the most significant are the Bardney Limewoods & Coastal Grazing Marsh SSSIs; a 'Living Landscape' area where there is a focus on supporting extensive livestock farming.

3. County Priorities

a) Theme: Priority farmland habitats.

The Lincolnshire and Wash Biodiversity Action Plans identify the following farmland habitats as being of importance;

- Arable field margins
- Lowland calcareous grassland
- Grazing marsh
- Hedgerows & hedgerow trees
- Lowland meadows

Specific CFE action required

Arable field margins; encourage the retention of field margins during the transition period of CAP and agri-environment scheme reform. Encourage the 'stacking' of benefits, eg use as pollinator habitat, barn owl habitat and resource protection benefits.

Lowland calcareous grassland; look after established wildlife habitat during the transition period of CAP and agri-environment scheme reform. Sign post farmers to further legislative advice on grassland, e.g EIA and other county initiatives, eg 'Life on the Verge.'

Grazing marsh; look after established wildlife habitat during the transition period of CAP and agri-environment scheme reform. Sign post farmers to further legislative advice on grassland, e.g EIA and initiatives such as the Lincolnshire Coastal Grazing Marsh Project.

Hedgerows & hedgerow trees; there are no CFE voluntary measures specific to hedgerows & hedgerow trees. Advice can be given on best practice.

Lowland meadows; look after established wildlife habitat during the transition period of CAP and agri-environment scheme reform. Sign post farmers to further legislative advice on grassland, e.g EIA.

In addition, the following habitats are also associated with or affected by farming activities;

- Chalk streams
- Springs and flushes
- Ponds, lakes & reservoirs
- Lowland mixed deciduous woodland
- Wet woodland
- Wood pasture & parkland
- Traditional orchards
- Lowland dry acid grassland
- Heathland & peatland
- Rivers, canals & drains; particularly important in the Fens, Humberhead Levels and grazing marshes.

Relevant CFE Voluntary Measures:

VM1, VM6, VM13, VM14, VM19, VM20.

b) Theme: Priority species and requirements

The Lincolnshire and Wash BAPs identify the following farmland species as being of importance;

- Birds (16 species listed in Lincs / the Wash BAP; barn owl, redshank, curlew, snipe, tree sparrow, grey partridge, lapwing, yellow wagtail, skylark, corn bunting, linnet, yellowhammer, reed bunting, turtle dove, bullfinch, starling).
- Bats (11 species listed in Lincs BAP; serotine, brown long eared, barbastelle, pipistrelle (2 species),Leisler's, noctule, Natterer's, whiskered, Brandt's & Daubenton's)
- Brown hare.
- Water vole – not in the Lincs BAP Farmland section but important in the farmed environment.

Specific CFE action required

Birds; brief requirements for all the species concerned are listed in **Annex 2** below.

Bats; generally rely on a good variety of well managed habitats such as hedgerows, ditches, wetland, woodland & permanent pasture. They require breeding, roosting & hibernation sites in the form of old trees and buildings. Can be encouraged by the careful use of pesticides and creating a network of insect-rich habitats.

Brown hare; favours a mosaic of farmland habitats to complete its life cycle. A controversial species as it is thought by many farmers to encourage illegal access onto land for illegal activities such as coursing.

Water vole; rely on clean water and well managed watercourses with a good supply of aquatic vegetation.

Relevant CFE Voluntary Measures:

VM1, VM6, VM7, VM8, VM9, VM10, VM11, VM12, VM14, VM15, VM16, VM17, VM18, VM19, VM20, VM21, VM22.

c) Theme: priority river catchments

The county has one Catchment Sensitive Farming designated area; the Lincolnshire Coast Rivers. The catchment stretches from the Humber along the coast to the edge of the Wash near Boston. Within the greater catchment a target area in North Lincolnshire has been identified, with groundwater showing nitrate concentrations above the UK Drinking Water Quality Standard of 50 mg/l.

The Catchment has an active CSF Officer, promoting a diverse range of events and a capital grant scheme.

Specific CFE action required

Support & reinforce the CSF message where appropriate. Sign post farmers to this advice where possible.

Relevant CFE Voluntary Measures:

VM1, VM2, VM4, VM5, VM17, VM19.

d) Other county priorities not already covered

Three further catchments in the county have been identified as priority by the Environment Agency:

The River Ancholme; the lower sections are at poor WFD status, suffering from elevated phosphate and pesticide levels and siltation problems.

The Barlings Eau; consistently at poor WFD status and suffering from sedimentation & nutrient enrichment.

The River Brant; consistently at poor WFD status.

Specific CFE action required

An opportunity exists to target these catchments through CFE events, offering nutrient management advice under Tried & Tested and running best practice events, potentially in partnership with the Farm Advisory Service and EA.

Relevant CFE Options:

VM1, VM2, VM4, VM5, VM17, VM19.

Annex 1; Relevant CFE Voluntary Measures.

VM1; grass buffer strips next to a watercourse or pond.

VM2; in field grass strips.

VM4; watercourse fencing.

VM5; winter cover crops.

VM6; wild flower mix.

VM7; pollen & nectar mix.

VM8; legume & herb rich temporary grass.

VM9; ryegrass seed for birds.

VM10; wild bird seed mix.

VM11; skylark plots.

VM12; lapwing plots.

VM14; unsprayed and / or unfertilised cereal headlands.

VM15; overwintered stubbles.

VM16; winter feeding for farmland birds.

VM17; field corners.

VM18; beetle banks.

VM19; fertiliser free permanent pasture.

VM20; arable land reverted to grass.

VM21; selective use of spring herbicides.

VM22; brassica fodder crops.

Annex 2; Priority farmland bird species & their requirements.

Barn owl; relies on well managed field margins, ditch banks & field corners and traditional buildings / mature trees for nesting / roosting sites.

Corn bunting; corn buntings require a safe nest site, invertebrate food for chicks and winter seed.

Grey partridge; grey partridges require suitable ground nesting sites such as hedge bottoms & grass margins. Chicks require insect food (sawfly larvae, caterpillars etc. During the winter grey partridges require a mix of green shoots and seed as food.

Lapwing; for nesting lapwing require bare ground or short vegetation between mid – March and June, and soil and ground invertebrates throughout the year. On cultivated land, nesting sites next to grazed pasture are ideal. On grassland, short, tussocky swards, damp meadows or pastures are ideal for lapwing.

Linnet; Linnets are one of only two finch species in the UK that feed their young on regurgitated seeds instead of insects. Areas where linnets can more easily find seeds include wild bird seed crops, winter stubbles and root crops. For nest sites on farmland linnets prefer thick thorny hedgerows, brambles and scrub.

Reed bunting; traditionally found in wetland habitats such as ditches, ponds, reed-beds and watercourses. However, in recent years it has expanded into drier habitats, especially farmland.

Skylark; prefer to nest on the ground in vegetation between 20 – 50 cm high. The vegetation needs to be open to give the birds easy access to the ground. Skylark chicks are fed exclusively on invertebrates, with adults feeding on weed seeds and shoots during the winter.

Tree sparrow; generally require a cavity in a tree, or nest box, to place their nest, although they will sometimes nest in buildings or dense vegetation. Insect food is required for the chicks in the summer and in the winter a mixture of weed seeds for the adults.

Turtle dove; benefit from the provision and sympathetic management of nesting habitat, (eg allowing the shrub layer to develop along woodland edges & maintaining tall, thick hedgerows and areas of scrub on the farm) & ensuring that there is some seed food available throughout the spring and summer.

Yellow wagtail; can be encouraged on cultivated land by: having a wide crop diversity, establishing skylark plots & creating a network of insect-rich habitats. On grassland by; maintaining water levels and extensive grazing on wet grassland to provide nesting cover, extensive summer grazing along watercourses & delaying cutting of hay/silage crops until mid-July.

Yellowhammer; like a number of seed eating farmland birds yellowhammers require insect food for chicks in the summer and seeds / cereal grain in the winter. Nests are placed in dense vegetation such as hedgerows and scrub.

Bullfinch; require woodland, scrubby hedges and scrub on farmland for nesting. Rare in parts of the county with limited woodland cover, eg the Fens. Staple diet is native tree buds, berries and seeds.

Starling; nests in holes in trees and buildings. Sometimes found in large communal roosts in woods and reed-beds. Feed sources are varied and include invertebrates, soft fruit and seeds. Permanent pasture particularly important as a winter food source.

Redshank; nest in rough grass habitat on or near salt marsh. Wet grassland particularly important for both breeding and overwintering redshank.

Curlew; breed in the Isle of Axholme & Upper Witham areas, in rough, damp pasture. Large numbers of curlew over winter on salt marsh on the Lincolnshire coast & may be dependent on farmland for some of their feeding requirements.

Snipe; breeding snipe in Lincolnshire are confined mainly to river valleys, eg the Witham. Numbers are supplemented by continental migrants in the winter. Wet grassland and salt marsh are typically favoured for feeding on invertebrates.