



HUMBERHEAD LEVELS
DRAINED, OPEN FARMLAND

LANDSCAPE CHARACTER TYPE 9: DRAINED OPEN FARMLAND

COUNTRYSIDE CHARACTER AREA: Humberhead Levels

Location

This landscape type is located to the south and east of Goole and encompasses the floodplain farmland of the River Ouse.

Key characteristics of Drained Open Farmland in the Humberhead levels:

- Low lying flat intensively farmed arable landscape.
- Sparse settlement concentrated along the river corridor.
- Scattered farmsteads and villages.
- Windmill towers are visible in several villages on the south bank of the River Ouse.
- Open large scale landscape with very few trees and woodland.
- Generally large fields south of the river.
- Combination of fragmented hedgerow and ditch field boundaries.
- Long linear field pattern unique to Goole Fields reflects past farming method.
- Extensive views across the flat open landscape.



View from Walling Fen east towards the Wolds (2005)

Physical Influences

The underlying solid geology of the area is Sherwood Sandstone from the Triassic period to the west of Goole and Mercia Mudstone to the east. This has been overlain by glacial deposits of the Devensian period when the area was largely covered by Lake Humber and more recent alluvium deposits. Peat is also present in the southern most part of the East Riding and this character type.

Soils are mainly brown earths derived from alluvium. They have an Agricultural Land Classification of Grade 1 and Grade 2.

The landform is low lying and flat. Much of the area is in the tidal floodplain. As a result the drainage system is pumped and the agricultural land is drained by a series of linear ditches and warping drains.

The rivers in the Humberhead levels were created in the early post glacial (Holocene) period.

Human Influences

Land use over the centuries has shaped the landscape of this character type. The majority of archaeological and historic interest is expressed through peat remains, buried sites, drainage structure and field systems. It is the drainage structure and field systems which contribute to the character of this type today. Much of the area would have been marsh and carr in early medieval times with areas of saltmarsh where there was tidal inundation.

Open field landscapes, where strip farming was once the order of the day, are an important part of the Humberhead Levels and there are good examples of this at Goole Fields and to some extent Twin Rivers where fields have become more amalgamated.

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The soil on land adjacent to the River Ouse is known as warp. The soil in these areas has been improved by flooding areas of land using the natural tidal flow of the river and allowing the sediment to settle out before letting the water back into the river. This is done over several years before the land is put back into agricultural production and was used in the 19th and early 20th century.

To the east of Goole Fields the field pattern is large scale less linear and less regular indicating that the fields are pre parliamentary enclosure fields for the most part that have been amalgamated to make larger units for farming.

Mineral extraction takes place in this character type. At Blacktoft, north of the River Ouse clay is extracted for brick making. Bricks have been an important building block for the East Riding since the 14th century and at one time there were a number of small clay quarries across the district.

At Goole Moor peat extraction has recently been stopped.

Ecological Influences

Low lying land associated with fluvial drift deposits and supporting wetland is seasonally wet. Drainage of the land and intensive farming practices along with the lack of vegetation cover has reduced the biodiversity of the area over the centuries. However, Thorne and Hatfield Moors are an important ecological resource in the south of this character type and extend over a large area into Doncaster.

CHARACTER AREAS

Five character areas have been identified within this landscape character type. They are:

Character Area 9A:	Thorn Moors
Character Area 9B:	Goole Fields
Character Area 9C:	Twin Rivers Farmland
Character Area 9D:	Blacktoft and Laxton Farmland
Character Area 9E:	Walling Fen and Ellerker Sands Farmland

Character Area 9A: Thorn Moors

Thorn Moors, part of the Thorn Crowle and Goole Moors SSSI, lies across the border between the East Riding of Yorkshire and South Yorkshire, and forms part of the largest expanse of lowland raised mire in England. Much of the surface has been modified by commercial peat extraction, however recently re-colonisation of the flora and fauna has followed due the use of more traditional extraction methods.

In wetter areas common cotton-grass is abundant with occasional soft rush, whilst some areas are dominated by sphagnum mosses. There is an extensive series of canals throughout, linking the peat cuttings, which support several species which would have formed the original raised mire flora, namely cranberry, royal fern, round-leaved sundew and bog rosemary. Other plant species of note include great fen sedge, southern marsh orchid and common meadow rue.

Invertebrates typical of peat bogs and fens are abundant at Thorn Moors and include the large heath butterfly, scarce vapourer moth and bog bush cricket

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(*Metrioptera brachiptera*). Other more scarce invertebrates are also found here, including giant raft spider and mire pill beetle. There is a nationally important breeding population of nightjar in the area. Other birds include teal, curlew, reed warbler, grasshopper warbler, nightingale and woodcock. The moors also provide suitable habitat for reptiles, especially the adder.

There are extensive views across the flat open landscape that are intermittently interrupted by scrub and birch regeneration on the moors. Drax Power Station is a prominent distant skyline feature.

Character Area 9B: Goole Fields

This is a large area of intensively farmed arable land located south of Goole. The villages of Old Goole and Swinefleet are located on the south bank of the River Ouse on the northern boundary of the character area. Long linear fields radiate southwards from the rear of these villages extending across the flat landscape of Goole fields. The fields in the main are bound by ditches that drain this low lying area into the River Ouse. The drainage system is pumped because of the low lying nature of the land adjacent to the river.

The majority of the area is Grade 1 arable farmland and a variety of cereal and root crops are grown.

Otters have been noted in Staithes Beck. Water voles were once widespread in the ditches and streams however there have been no recent sightings. Barn owls nest in the area.



View south across Goole Fields (2005)

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Character Area 9C: Twin Rivers Farmland



Farmland north west of Adlingfleet (2005)

This character area has been distinguished from Goole Fields because of the different field pattern in the area. Fields still tend to be linear extending south from the rear of the villages of Reedness, Whitgift, Ousefleet and Adlingfleet. However they are wider and more sinuous in shape becoming more irregular further east. The pattern indicates early enclosure rather than parliamentary enclosure. Many field boundaries are marked by ditches and hedgerows tend to be concentrated around villages and smaller fields.

Water voles have been recorded in several of the water courses in this area, as have the non-native American mink, which preys on the water vole.

Views across the flat open landscape are extensive. Vertical elements such as pylons and telegraph poles are detractors in the area.

Character Area 9D: Blacktoft and Laxton Farmland

This area of farmland is located north of the River Ouse, south of Gilberdyke and east of Howden.



Farmland east of Laxton (2005)

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Small villages are located to the south of this area almost parallel to the River Ouse. Blacktoft, Broomfleet and Laxton are the largest settlements in this area. The presence of moated sites would indicate that the area has been settled and farmed for several centuries. Drainage is important to the agricultural industry in this low lying area and much of the area relies on a pumped drainage system. The River Ouse has contributed to the fertility of the land through warping.

Around Oxmardike and Broomfleet remnants of fen vegetation survive, indicative of a once far more widespread habitat in this area. In the ponds on either side of the Hull to Goole railway line aquatic plants such as lesser water plantain (*Baldellia ranunculoides*), whorled water milfoil (*Myriophyllum verticillatum*) and greater water parsnip (*Sium latifolium*). Along the Market Weighton Canal near Broomfleet greater tussock sedge (*Carex paniculata*) can be found.

Water voles are present in some ditches and streams (such as Broomfleet Beck) however recent surveys of most water courses have returned negative results. Otters use the Market Weighton Canal, whilst bird interest of the area includes marsh harrier and barn owl. Grass snakes have also been recorded.

Extensive views across the open arable landscape are occasionally interrupted by small areas of woodland. Tree cover tends to be associated with farmsteads and villages. Hedgerows are a characteristic but intermittent feature.

Character Area 9E: Walling Fen and Ellerker Sands Farmland

Located south of the M62 corridor the area borders the Yorkshire Wolds to the east and the Humber estuary to the south. This is a productive intensively farmed area north of the Hull to Selby Railway line.

The early medieval landscape of this low lying area would have been marsh and carr. There were possibly areas of saltmarsh here too due to tidal inundation.

The enclosure of Walling Fen took place in 1781. 5000 acres of land was enclosed. Drainage of the area was affected by the Market Weighton canal and it was not until the demise of navigation that drainage could be improved. Ellerker sands were reclaimed from the River Ouse at the beginning of the 18th century when New Bank was constructed.

The eastern edge of this area is on the fringes of the Yorkshire Wolds, and as such has calcareous soils in localised patches with typical associated plant species. Water voles have been noted at several of the drainage ditches and streams running through the farmland.



Farmland at Walling Fen (2005)

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EVALUATION

Positive Landscape Features

- Few trees and woods resulting in an open landscape with long distance views over large areas of flat arable land.
- Distinctive linear field pattern south of Goole at Goole fields
- Linear settlements along the river. Buildings traditionally brick with pantile roofs.
- One or two windmill towers have survived as local landmarks in the villages on the south bank of the river.

Condition and Strength of Character

This area is remote and unique. Goole Fields has a distinctive linear field pattern that contrasts with the other field patterns in the area. All are large scale. The area has a strong sense of character despite being relatively featureless.

Strung out linear villages are a distinctive characteristic, particularly on the south bank of the River Ouse. The limited number of roads through the area also contributes to the relatively isolated character of the area.

Quality

The landscape quality of this area is assessment be good due to the strong sense of place it has and the value placed on its openness and the historic development of land use in the area. Thorne and Hatfield Moors to the south is a SSSI that just extends into the East Riding. The neighbouring Authority of Doncaster Metropolitan Borough Council has designated this area an area of High Landscape Value and the Thorne and Hatfield Moors Character Area in this landscape type is also assessed to be a high quality landscape not only because

of its ecological value but also because of its rarity i.e. there are few similar landscapes remaining today.

Forces for Change

Pressures on the farming industry are likely to lead to changing land management practices and farm diversification. Environmental Stewardship schemes present an opportunity to ensure this change is positive. At present recreation activities in this character type are few and it is not anticipated this will become a problem in the future.

Renewable energy targets and the remote featureless nature of this area have meant that this character type is already under great pressure to accommodate wind farm development and there are currently several applications being considered in the area (not all in the East Riding). Large scale Wind farm development is likely to be a huge force for change.

The cumulative impact of wind farm development in the area may result in large scale changes to character.

This area is low lying and rising sea level will result in a change to the landscape. It is possible some areas would become flooded in time.

There is limited pressure for commercial development and residential development in the area. Where development has taken place in recent years it has been small scale and accommodated into the landscape.

Sensitivity and capacity

This is an open landscape with few trees and hedgerows, and sparse settlement. Views across the area are extensive and open from all sides. As a result the

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character of this good quality landscape has high sensitivity to commercial development that would not respect landscape pattern and the openness of the character type.

Wind farm development in this area has the potential to impact on its remote character and the extensive views across and into the area. The introduction of wind turbines on a large scale would alter landscape character. However, the area does not have any landscape designations and its scale is large apart from around villages where smaller scale field systems have survived and tree and hedge cover have remained good. Where development proposals for wind farms in this landscape type are located away from villages there would be restricted close views from residential properties. However, the turbines would be visible in this open landscape which is considered to have medium sensitivity to wind farm development that is of appropriate scale i.e. the number of turbines and height of turbines proposed should be low enough to ensure that although the turbines may be seen on the horizon they would not dominate views across open landscape. However, cumulative impacts also need to be considered and the open nature of the landscape will result in greater visual impact the greater the number of developments. The landscape in this area has potentially high sensitivity to the cumulative impacts of wind farm development due to its very open and remote characteristics.

Strategy

Maintain the unique character of this open and remote landscape. Landscape pattern has historical significance regarding the drainage of land for agricultural use. The maintenance of this pattern would contribute to the retention of historic landscape character in the area.

Field patterns make an important contribution to landscape character and have been amalgamated in places. Encourage existing field boundaries to be maintained and avoid the amalgamation of fields.

Explore opportunities to reintroduce wetland habitat to the character type to improve biodiversity and visual diversity in this large scale arable landscape.

New residential development should be located to respect the linear layout of villages and the scattered arrangement of farmsteads. It is important to consider location and materials where small scale development is being proposed as it will be visible in the open landscape and screen planting is not characteristic.

New agricultural buildings should be located within existing farm complexes to limit potential impact of increasing scattered development in the countryside.

Wind farm proposal need to consider landscape pattern and scale and the potential impact of associated infrastructure. While this area may have some capacity to accommodate a restricted amount of development without substantial adverse effects on landscape character in some locations the cumulative impacts of such developments are likely to be considerable in such an open landscape.

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