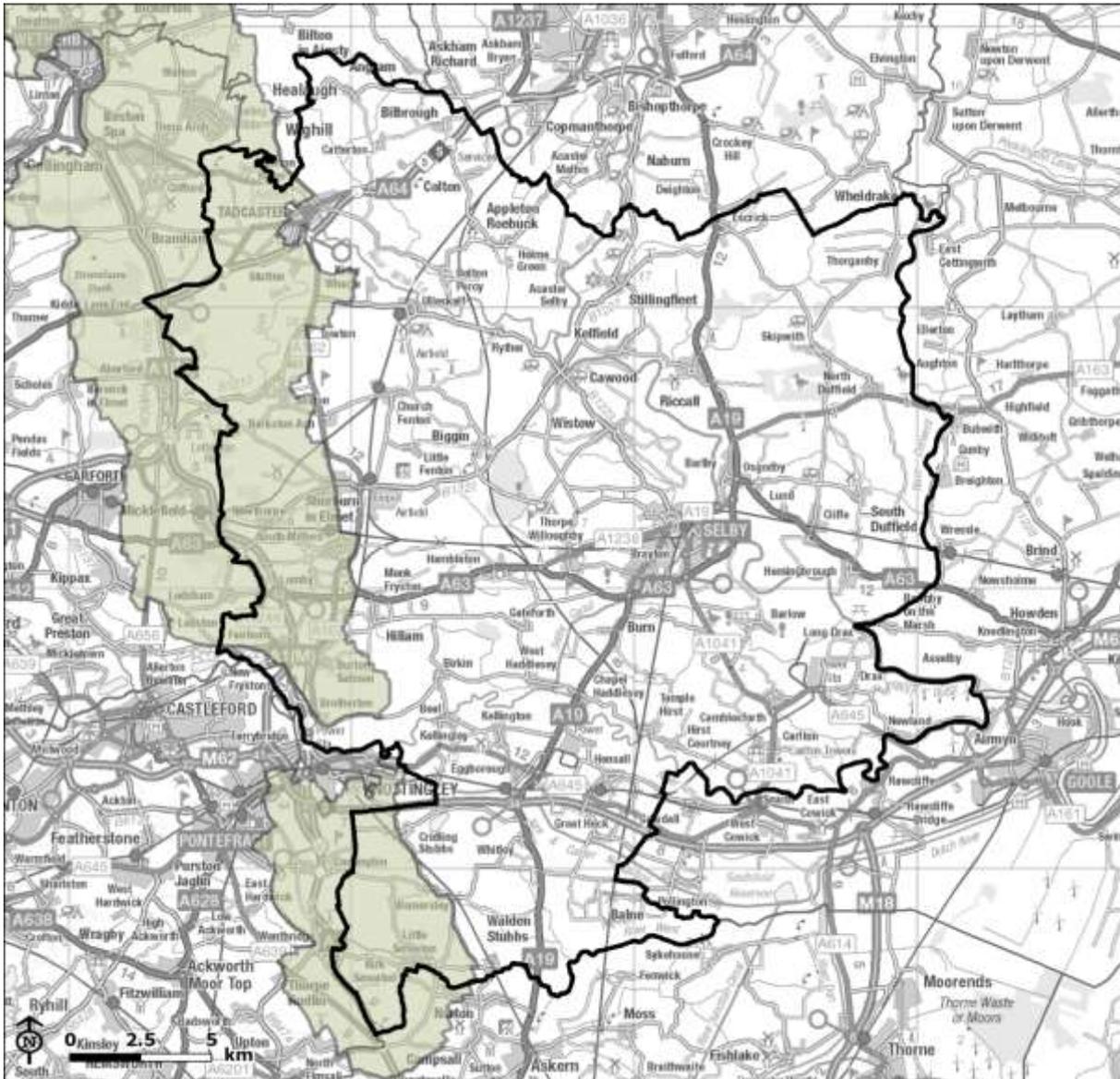


# Appendix 4: Wind Energy

## LCT6: Magnesian Limestone Ridge

Extent of the Magnesian Limestone Ridge LCT in relation to Selby District



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CB: EB:macrae\_p LUC 10580\_SelbyDC\_LCT6 24/05/2019

### Key characteristics

Key characteristics for this LCT are set out in the 2011 *North Yorkshire and York Landscape Characterisation Project* as follows:

- A low ridge of gently rolling landform which is covered by a pattern of fertile farmland and well wooded estates;
- Landform is intersected by a series of relatively intricate dry valleys;
- Wooded limestone gorges, caves and crags are key landscape features;
- The prominent transport corridor of the A1(M) which runs through the southern section of this LCT;
- Large-scale arable fields dominate the landscape, facilitating long distance views, extending as far as Kilburn White Horse on the edge of the North York Moors National Park;
- Intimate scale and grain of the landscape derived from complex topography and land use patterns;
- Several historic country houses and associated designed landscapes, often containing mature veteran trees;
- Limestone quarries are a relatively common landscape feature; and
- Use of limestone as a building material which creates a unified character.

The 2019 Selby Landscape Character Assessment breaks this LCT down into the West Selby Limestone Ridge and Smeaton Ridge character areas, and their key characteristics have also been referenced.

## Landscape Sensitivity to Wind Turbines: LCT6 Magnesian Limestone Ridge

Criteria	Description	Rating
<b>Landform and scale</b>	<ul style="list-style-type: none"> <li>A large-scale rolling landscape with occasional valleys including the River Aire and the River Went, and the smaller Cock Beck.</li> <li>Moderate to large in scale, there are few distinctive landforms in this LCT.</li> </ul>	<b>M</b>
<b>Land cover pattern and presence of human scale features</b>	<ul style="list-style-type: none"> <li>Mainly comprising large-scale arable farming, there are areas with a smaller scale field pattern and areas of pasture.</li> <li>There are regular areas of woodland, trees, hedges, farm buildings and quarries that offer human scale references.</li> <li>There are occasional limestone villages that are traditional to the area.</li> </ul>	<b>M</b>
<b>Skylines</b>	<ul style="list-style-type: none"> <li>Woodland on upper slopes is an often distinctive feature of the skyline in local views, and in more distant views of the ridge landscape.</li> <li>Skylines are relatively indistinct and there are few landmarks.</li> <li>Overhead power lines run through much of this area, introducing human features on the skyline.</li> </ul>	<b>M</b>
<b>Perceptual qualities</b>	<ul style="list-style-type: none"> <li>A strongly rural character throughout this area, which is relatively tranquil considering nearby large settlements.</li> <li>Relatively limited settlement, with few isolated properties and farms, contributing to the sense of tranquillity.</li> <li>Tranquillity is locally reduced in areas closer to the A1(M) along the west edge of the LCT, as well as close to other transport corridors and the numerous quarries.</li> </ul>	<b>M</b>
<b>Scenic qualities</b>	<ul style="list-style-type: none"> <li>One of the more scenic areas of Selby district, this LCT offers some visual diversity, and most of the area covered is recognised as a Locally Important Landscape Area.</li> <li>There are combinations of features that add scenic value, particularly around areas of more undulating topography with woodlands.</li> <li>Small areas of parkland offer locally greater visual diversity.</li> <li>More open parts of the LCT have less visual interest, and there are few features that could be described as dramatic.</li> </ul>	<b>M</b>
<b>Intervisibility</b>	<ul style="list-style-type: none"> <li>The ridge forms the western edge of Selby District, and is frequently visible as a low skyline feature from the flatter landscapes to the east.</li> <li>Woodland and pylons along the ridge are often visible from adjacent landscapes.</li> <li>The low ridge forms a backdrop to settlements located along the eastern edge, when viewed from further east.</li> </ul>	<b>M-H</b>

### Overall assessment of landscape sensitivity to the development scenario

Development scenario	Sensitivity			
<b>Wind turbines up to 80m</b>			<b>M</b>	

Notes on any variations in landscape sensitivity
There are no significant variations in sensitivity across the LCT, though sensitivity will vary at a local scale and the potential for landscape and visual impacts should be considered on a case by case basis.

## Representative photographs



Open rolling farmland with Hook Moor turbines



Some scenic arrangements of woodland and topography



Woodland and pylon at Brockadale, River Went valley



Long views with few prominent human features

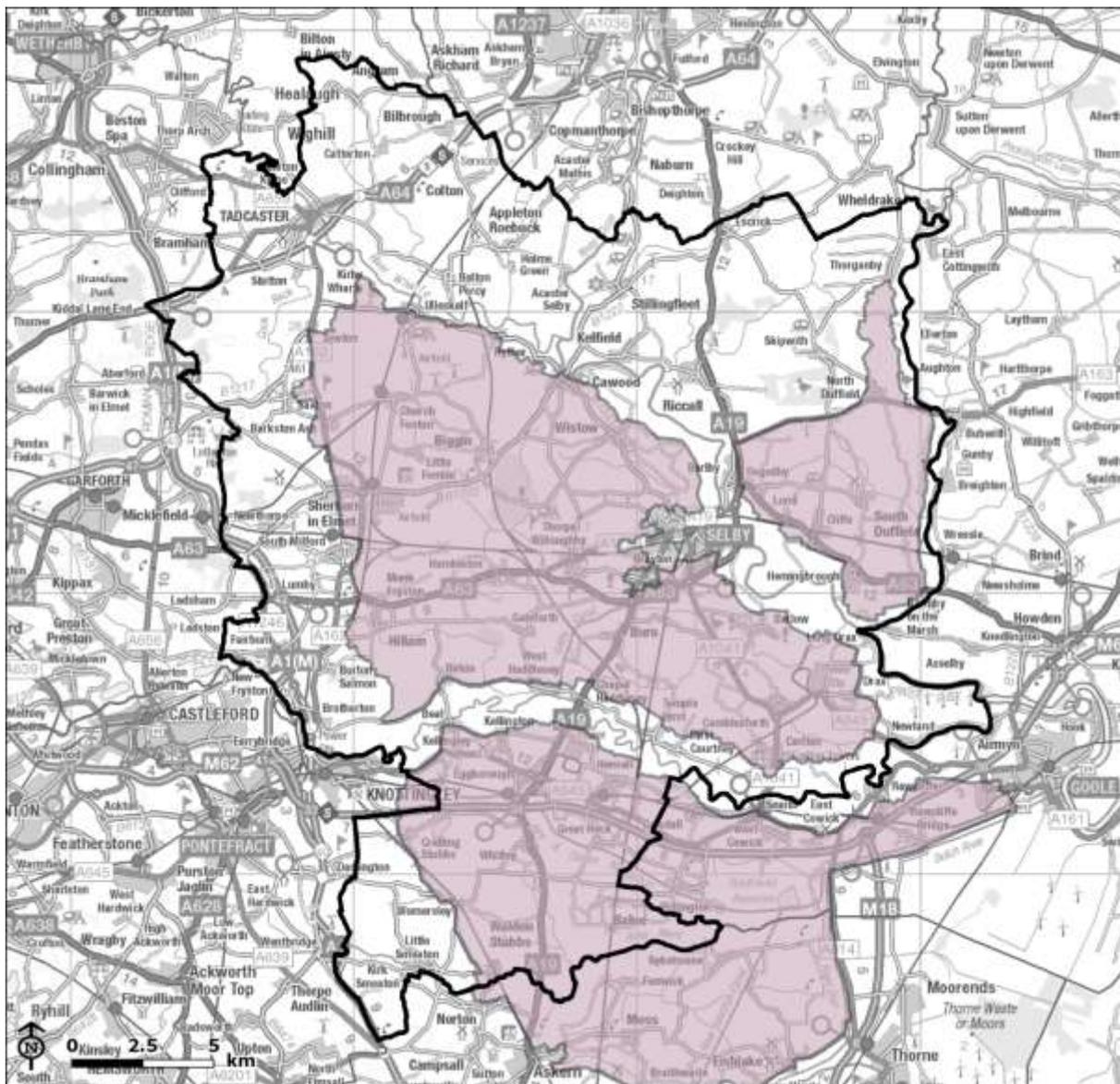
## Guidelines

When siting and designing wind energy developments in this LCT, the following guidance may assist in locating development to reduce landscape and visual effects.

- The combination of undulating ground and relatively frequent woodland may offer opportunities to locate turbines such that views will be contained.
- Sensitive site turbines in relation to key features such as the more incised valleys, and areas of deciduous woodland.
- Carefully consider the potential for effects on wider views from adjacent landscapes, particularly from the east.
- Avoid placing turbines where they could affect the setting of settlements either locally or as viewed from the lower landscape to the east.
- Favour locations with more limited intervisibility with neighbouring LCTs.
- Ensure siting and design of turbines maintains the openness the Green Belt.
- Avoid development that would impact on the integrity and appreciation of parkland landscapes (registered or otherwise) and the Towton historic battlefield.
- Avoid siting turbines where they could exacerbate the effects of the overhead power lines in this LCT.

## LCT23: Levels Farmland

Extent of the Levels Farmland LCT in relation to Selby District



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### Key characteristics

Key characteristics for this LCT, as set out in the 2011 *North Yorkshire and York Landscape Characterisation Project* are as follows:

- Predominantly flat, low-lying landscape which encompasses a patchwork of arable fields;
- Large scale, open and rectilinear field pattern;
- Dykes or ditches often form field boundaries, with an general absence of hedgerows;
- Industrial scale farm buildings, large embankments and drains, and major energy and transport infrastructure contribute human elements; and
- Historical features, such as windmills, recording past attempts to drain the landscape are key features.

The 2019 Selby Landscape Character Assessment breaks this LCT down into the following character areas, and their key characteristics have also been referenced:

- East Selby Farmland;
- Sherburn Farmland;
- North Selby Farmland;
- Haddlesey Farmland;
- Hambleton Sandstone Ridge;
- Camblesforth Farmland;
- Eggborough; and
- Southern Farmland.

## Landscape Sensitivity to Wind Turbines: LCT23 Levels Farmland

Criteria	Description	Rating
<b>Landform and scale</b>	<ul style="list-style-type: none"> <li>Little or no topographical variation across the majority of this LCT, which is almost all under 10m AOD.</li> <li>Slight rises such as south of the River Aire, are not readily perceptible in the field but may indicated slightly higher sensitivity.</li> <li>The general lack of topographical variety creates a large scale open landscape.</li> <li>The rarity of higher ground means that the low hills of the Hambleton Sandstone Ridge, as well as the artificial high ground formed by ash piles, are of much greater sensitivity than other areas.</li> </ul>	<b>L</b>
<b>Land cover pattern and presence of human scale features</b>	<ul style="list-style-type: none"> <li>The LCT is dominated by intensive arable land use, with generally large fields and limited hedges and field boundary trees.</li> <li>The extensive areas of arable land are broken up by woodlands, including both small copses and larger mixed woods.</li> <li>Human scale features include the many farms and villages that are regularly dispersed across this landscape.</li> <li>There are also larger-scale features in several locations, including power stations and industrial buildings.</li> </ul>	<b>L-M</b>
<b>Skylines</b>	<ul style="list-style-type: none"> <li>Skylines are generally not distinctive, and tend to be defined by layers of trees or distant built features.</li> <li>Landmarks in this landscape include power stations and other industrial features, as well as occasional church towers as at Hemingbrough.</li> <li>The low hills of Hambleton Hough and Brayton Barff are local landmarks in the Hambleton Sandstone Ridge area.</li> </ul>	<b>L-M</b>
<b>Perceptual qualities</b>	<ul style="list-style-type: none"> <li>The LCT is an intensively farmed landscape, which does not have strongly remote characteristics. There are large-scale overt human features that have a widespread influence, as well as smaller human features across the landscape.</li> <li>Busy roads including the M62, A63 and A19, as well as railways, have an influence on relative tranquillity.</li> <li>However, away from roads and industrial features the landscape can be quiet and there are pockets of genuine tranquillity, mainly focused on woodlands such as Bishop Wood and Brayton Barff.</li> </ul>	<b>L-M</b>
<b>Scenic qualities</b>	<ul style="list-style-type: none"> <li>This flat landscape has limited visual diversity and is not generally considered to have scenic value.</li> <li>There are some combinations of attractive features, including woodland and traditional buildings.</li> <li>The small hills of Hambleton Hough and Brayton Barff are locally valued as scenic features, identified as Locally Important Landscape Areas in the development plan. This designation represents a very small area of the LCT.</li> </ul>	<b>L-M</b>
<b>Intervisibility</b>	<ul style="list-style-type: none"> <li>Long views are a characteristic feature of this landscape. Where tall structures exist, they are frequently visible over long distances.</li> <li>The flat landscape is overlooked from higher ground to the west, and intervisibility between areas of the Levels Farmland is also important.</li> </ul>	<b>M</b>

### Overall assessment of landscape sensitivity to development scenarios

Development scenario	Sensitivity			
<b>Wind turbines up to 80m</b>		<b>L-M</b>		

#### Notes on any variations in landscape sensitivity

This extensive LCT shows little overall variation in character that would alter sensitivity. The exception is the Hambleton Sandstone Ridge character area, which takes in the small hills of Hambleton Hough and Brayton Barff. Though modest in scale, these hills display visual interest and diversity of landcover, and are visually important to local skylines. The sensitivity of this character area should be considered **medium high**. Sensitivity also varies at a local scale, and the potential for landscape and visual impacts should be considered on a case by case basis.

## Representative photographs



Typical flat, open farmland



Ash disposal sites provide local topographic variation



Human-scale and industrial-scale features



More diverse landscape, Hambleton Hough

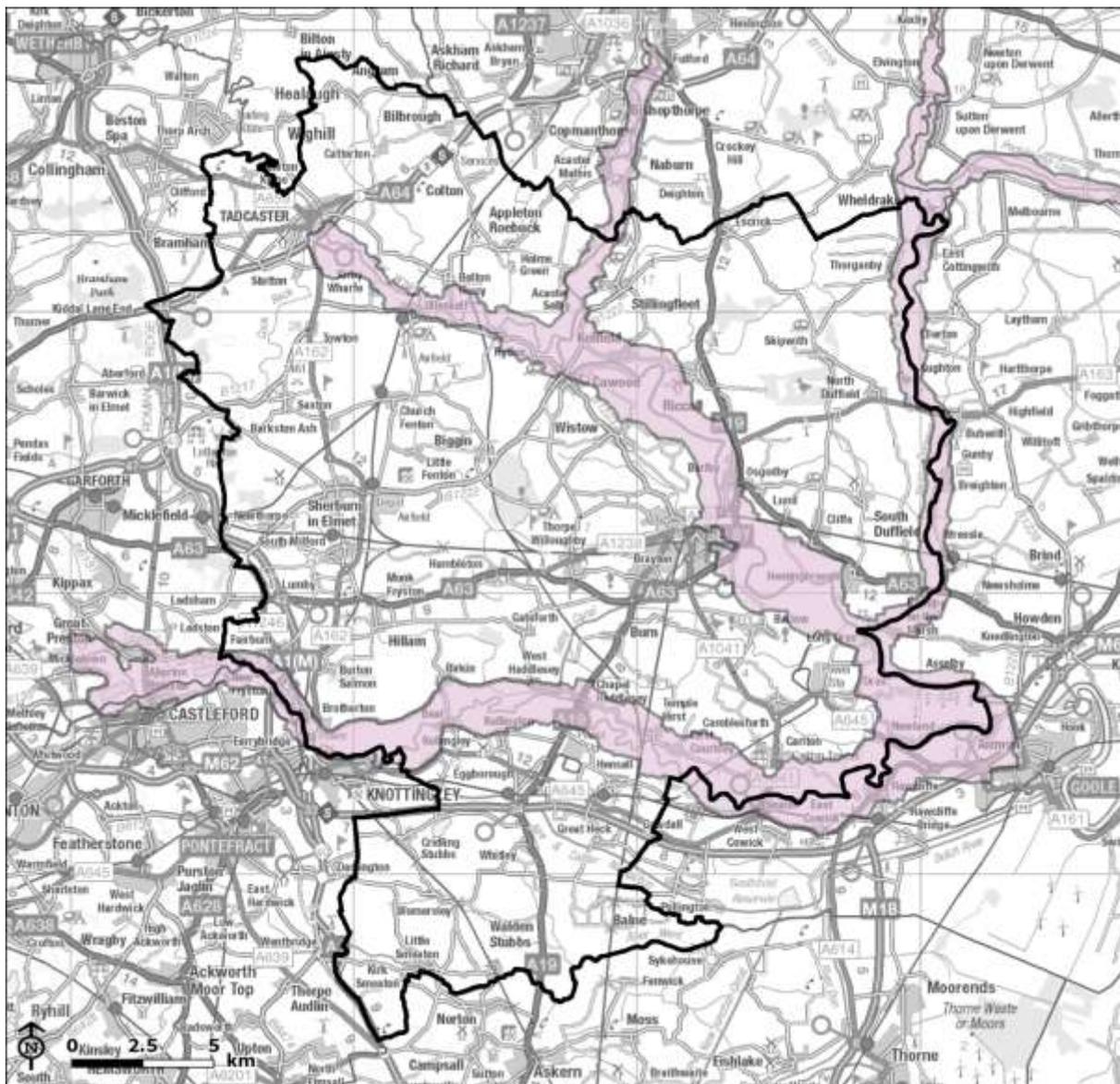
## Guidelines

When siting and designing wind energy developments in this LCT, the following guidance may assist in locating development to reduce landscape and visual effects.

- Areas of landscape that are already affected by large-scale human intervention, such as industrial installations, power stations, former mines and disused airfields, will be less sensitive to the addition of wind turbines.
- Consideration should be given to the potential for cumulative effects to arise with existing large-scale wind farms and other overt human development, such as pylons, which may lead to visual confusion.
- Long views in this area raise the possibility of cumulative effects arising at relatively long distances for this scale of wind turbine. Consideration of cumulative effects should focus on more sensitive views within the landscape.
- Presence of woodlands and copses may offer opportunities to site turbines so that they take advantage of 'ready-made' screening.
- Siting of turbines should avoid the human-scale landmarks that contribute to the rural character of the landscape, such as church spires.
- Avoid placing turbines where they could affect the setting of smaller traditional settlements within this landscape.
- Avoid siting turbines on or near higher ground, particularly Hambleton Hough and Brayton Barff, but also the artificial ash piles, and more subtle rises for example south of the River Aire.
- Avoid the need to fell woodlands to site turbines or to enable access.
- Avoid development that would impact on the integrity and appreciation of parkland landscapes (registered or otherwise).
- Ensure siting and design of turbines maintains the openness the Green Belt.

## LCT24: River Floodplain

Extent of the River Floodplain LCT in relation to Selby District



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### Key characteristics

Key characteristics for this LCT, as set out in the 2011 *North Yorkshire and York Landscape Characterisation Project* are as follows:

- A series of flat, low lying, relatively narrow river corridors which flow through the different types of Vale Farmland Landscape Character Types within the Study Area;
- The 'Ings' - flood meadows maintained by traditional hay making activities;
- Landscape pattern comprises a mixture of flood meadows, neutral grasslands and floodplain mires;
- Halls and manor houses are key landscape features;
- River engineering features such as Levees assert a human influence over the landscape;
- Power stations, pylons and former collieries are present in parts of this Landscape Character Type; and
- The A1 (M) introduces a source of noise and visual intrusion in several places.

The 2019 Selby Landscape Character Assessment breaks this LCT down into the following character areas, and their key characteristics have also been referenced:

- Wharfe Valley;
- Ouse Valley;
- Derwent Valley; and
- Aire Valley.

## Landscape Sensitivity to Wind Turbines: LCT24 River Floodplain

Criteria	Description	Rating
<b>Landform and scale</b>	<ul style="list-style-type: none"> <li>Generally these floodplain landscapes are almost entirely flat.</li> <li>In the west the floodplains of Wharfe and Aire are framed by higher ground of the Magnesian limestone ridge, while to a lesser extent the Ouse is framed by the Escrick Moraine to the north of the District.</li> <li>This framing is particularly pronounced where the floodplain passes through the Magnesian limestone west of Brotherton, indicating higher sensitivity in this location.</li> <li>Other areas merge seamlessly with the adjacent Levels Farmland.</li> </ul>	<b>L</b>
<b>Land cover pattern and presence of human scale features</b>	<ul style="list-style-type: none"> <li>Intensive arable farmland is the dominant land use across these floodplains.</li> <li>There are smaller but significant areas of pasture, and these include traditionally managed inges. These are highly sensitive to change particularly where they occur in concentration along the Derwent Valley.</li> <li>Development is limited within this landscape, though settlements are often sited adjacent on marginally higher ground. Human-scale features are therefore generally seen in views.</li> </ul>	<b>L-M</b>
<b>Skylines</b>	<ul style="list-style-type: none"> <li>In areas where the floodplain runs through flat farmland, skylines are indistinct and formed by layers of trees and occasional buildings, often punctuated by larger built features.</li> <li>Local landmarks such as church spires are sometimes a feature of skylines as seen from the floodplains. Other features such as bridges serve to mark the course of the river and these landmarks are sensitive to change.</li> <li>The presence of pylons, particularly along the Aire Valley, could lead to visual confusion if turbines were added.</li> </ul>	<b>L-M</b>
<b>Perceptual qualities</b>	<ul style="list-style-type: none"> <li>The floodplains include some of the more tranquil parts of the District, due to the lack of development and the limited access to many parts of the rivers.</li> <li>The sense of remoteness is most pronounced in the traditionally managed inges of the Derwent Valley, where the presence of nature reserves contributes to a perception of naturalness.</li> <li>Other areas are more affected by nearby development, as around Selby and Eggborough. Major road crossings have a local influence on tranquillity.</li> </ul>	<b>M</b>
<b>Scenic qualities</b>	<ul style="list-style-type: none"> <li>The flat floodplain areas are not visually diverse, and do not have strong scenic qualities.</li> <li>The river is often hidden from view behind artificial flood banks, though there are some attractive combinations of landscape where woodland and local landmarks combine with open pastures.</li> <li>More diverse landscapes are found where the floodplain LCT coincides with the Magnesian limestone ridge.</li> </ul>	<b>L-M</b>
<b>Intervisibility</b>	<ul style="list-style-type: none"> <li>Long views are a characteristic feature of this landscape, which is visually continuous with the adjacent Levels Farmland. Where tall structures occur in either of these landscapes, they tend to be visible over long distances.</li> <li>The floodplain landscape is overlooked from limited areas of higher ground to the west and north, indicating slightly higher sensitivity in these locations.</li> </ul>	<b>M</b>

### Overall assessment of landscape sensitivity to development scenarios

Development scenario	Sensitivity				
<b>Wind turbines up to 80m</b>		<b>L-M</b>			

#### Notes on any variations in landscape sensitivity

As noted above, the traditionally managed inges of the River Derwent are sensitive due to their greater level of tranquillity and more varied land cover. The sensitivity of the Derwent Valley character area should be considered **medium-high**. In addition, the sections of the Wharfe and Aire Valley character areas adjacent to the Magnesian limestone ridge are judged to be of **medium-high** sensitivity due to the juxtaposition of landscapes and greater scenic value. Sensitivity will vary at a local scale and the potential for landscape and visual impacts should be considered on a case by case basis.

## Representative photographs



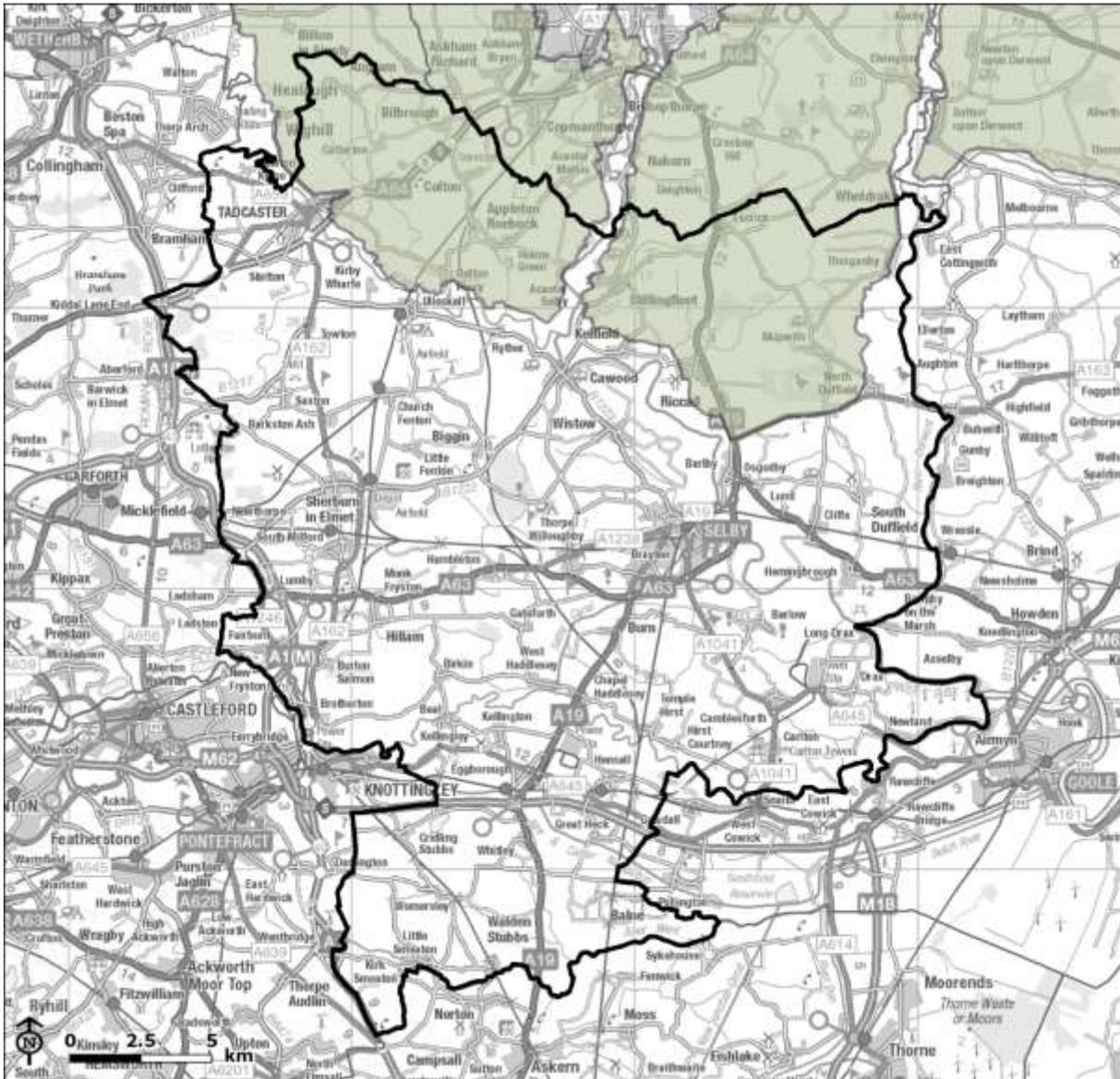
## Guidelines

When siting and designing wind energy developments in this LCT, the following guidance may assist in locating development to reduce landscape and visual effects.

- Areas of landscape that are already affected by large-scale human intervention, such as those with nearby industrial installations or commercial development, will be less sensitive to the addition of wind turbines.
- Consideration should be given to the potential for cumulative effects to arise with existing large-scale wind farms and other overt human development, such as pylons, which may lead to visual confusion.
- Long views in this landscape, and into the adjacent LCT, raise the possibility of cumulative effects arising at relatively long distances for this scale of wind turbine. Consideration of cumulative effects should focus on more sensitive views within the landscape.
- Siting of turbines should avoid effects on the setting of the human-scale features that contribute to the rural character of the landscape, such as landmark church spires and traditional villages.
- Turbines placed on higher ground adjacent to the floodplains, where this occurs, may be of greater prominence in views from the river valley.
- Avoid constructing turbines where disturbance to traditionally managed lands would occur, either from the turbine itself or access requirements.
- Avoid development that would impact on the integrity and appreciation of parkland landscapes (registered or otherwise).

## LCT28: Vale Farmland with Plantation Woodland and Heathland

Extent of the Vale Farmland with Plantation Woodland and Heathland LCT in relation to Selby District



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### Key characteristics

Key characteristics for this LCT, as set out in the 2011 *North Yorkshire and York Landscape Characterisation Project* are as follows:

- A patchwork of low lying, predominantly arable fields, often delineated by a network of mature hedgerows and interspersed with patches of regular-shaped mixed and coniferous plantation woodlands;
- Large heathlands are key features on sandy soils;
- Distant visual containment is provided by higher Landscape Character Types to the east and west;
- Strong sense of openness throughout much of this Landscape Character Type;
- Scattered settlement pattern of towns, villages and farmsteads within the landscape around the main historic City of York; and
- A network of trunk roads linking the larger settlements and towns.

The 2019 Selby Landscape Character Assessment breaks this LCT down into the following character areas, and their key characteristics have also been referenced:

- York Fringe East;
- York Fringe West; and
- Skipwith Lowlands.

## Landscape Sensitivity to Wind Turbines: LCT28 Vale Farmland with Plantation Woodland and Heathland

Criteria	Description	Rating
<b>Landform and scale</b>	<ul style="list-style-type: none"> <li>The northern area of the District includes the Escrick Moraine which, although modest in elevation, provides a contrast in its rolling form and slight visual enclosure, with the generally flat landscapes elsewhere.</li> <li>South of the moraine the landscape becomes flatter, and larger in scale, as it merges visually with the adjacent floodplains and Levels Farmland.</li> </ul>	<b>L-M</b>
<b>Land cover pattern and presence of human scale features</b>	<ul style="list-style-type: none"> <li>The majority of the area is under intensive arable cultivation. However, there is some variety in land cover, with extensive areas of pasture, some of which comprises small fields with hedges and trees around villages.</li> <li>Woodland includes large plantations as well as smaller farm woodlands.</li> <li>The parkland landscape of Nun Appleton occupies a large area west of the Ouse, and at Skipwith Common is the largest remaining area of heathland in the District.</li> <li>Human-scale features include the woodlands, as well as several nuclear villages, farms and parkland features. There is more limited large-scale industrial development in this LCT.</li> </ul>	<b>L-M</b>
<b>Skylines</b>	<ul style="list-style-type: none"> <li>Occasionally skylines are more distinctive, with rounded landforms and pasture, though these are not prominent.</li> <li>Generally skylines are obscured by woodland or, in flatter areas, by the same layering of trees as seen in the Levels Farmland.</li> </ul>	<b>L-M</b>
<b>Perceptual qualities</b>	<ul style="list-style-type: none"> <li>A strongly rural landscape, the lack of major industrial infrastructure means this is a more tranquil landscape than other parts of the district.</li> <li>There are few major roads or other sources of noise intrusion.</li> <li>Pockets of genuine tranquillity occur at Skipwith Common, with its strong sense of naturalness.</li> </ul>	<b>M</b>
<b>Scenic qualities</b>	<ul style="list-style-type: none"> <li>The rolling moraine landscape has some visual diversity and there are attractive combinations of landscape features particularly around the parkland landscapes and areas of smaller scale pasture.</li> <li>The remnant heathland at Skipwith Common is an attractive landscape with strong contrast to the surrounding arable farmland.</li> </ul>	<b>M</b>
<b>Intervisibility</b>	<ul style="list-style-type: none"> <li>There are long views south from the moraine ridge, which has local roads running along its length. These views overlook the Levels Farmland.</li> <li>The ridge itself is not a prominent or highly visible feature in views north from the Levels Farmland, though higher ground is locally visible on the skyline.</li> </ul>	<b>M</b>

### Overall assessment of landscape sensitivity to development scenarios

Development scenario	Sensitivity			
<b>Wind turbines up to 80m</b>			<b>M</b>	

Notes on any variations in landscape sensitivity
<p>More elevated areas of this landscape will be of higher sensitivity than the lower-lying areas to the south of the moraine, that share key characteristics with the Levels Farmland. Like the Levels Farmland, the Skipwith Lowlands character area generally has <b>low-medium</b> sensitivity to wind turbines. Sensitivity will vary at a local scale and the potential for landscape and visual impacts should be considered on a case by case basis.</p>

## Representative photographs



Attractive landscape of Skipwith Common



Rural lanes and villages



Smaller scale pasture fields with hedgerows



Parkland character around Eswick

## Guidelines

When siting and designing wind energy developments in this LCT, the following guidance may assist in locating development to reduce landscape and visual effects.

- Turbines located on more elevated ground within this LCT are likely to be more prominent in the landscape than those sited on lower ground.
- Prefer sites in simple, regular landscapes with more extensive areas of consistent land cover, over landscapes with more complex or smaller scale field patterns.
- Presence of woodlands and copses may offer opportunities to site turbines so that they take advantage of 'ready-made' screening.
- Avoid placing turbines where they could affect the setting of smaller traditional settlements within this landscape.
- Long views in this area raise the possibility of cumulative effects arising at relatively long distances for this scale of wind turbine. Consideration of cumulative effects should focus on more sensitive views within the landscape.
- Avoid the need to fell woodlands to site turbines or to enable access.
- Avoid development that would impact on the integrity and appreciation of parkland landscapes (registered or otherwise).
- Maintain the tranquil character and setting of the woodland and heathland on and around Skipwith Common.
- Ensure siting and design of turbines maintains the openness the Green Belt.