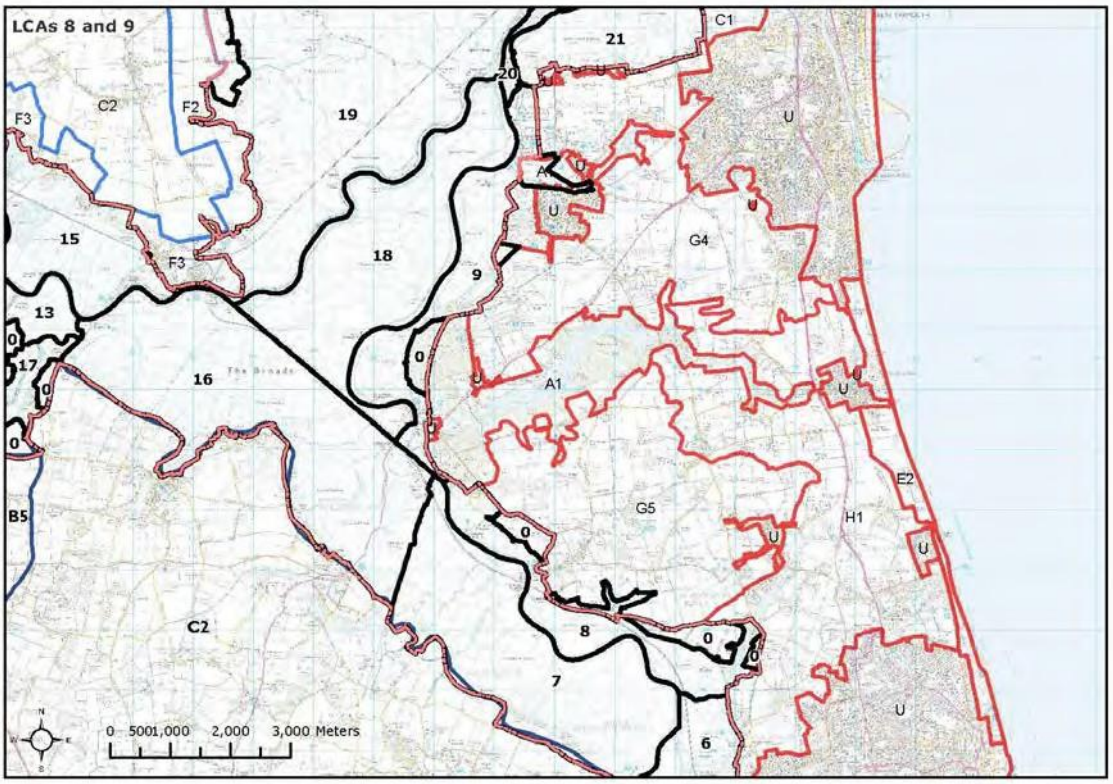
LCA 8: Waveney Valley - Flixton to Herringfleet Marshes: LCA 9: Waveney Valley – St Olaves to Burgh Castle

Location and landscape character context



Landscape Sensitivity Assessment for Wind Turbines

Criteria	Lower sensitivity	⟷	Higher sensitivity
1.Scenic and special qualities	The special qualities of the Broads represented within these character areas such as the wide open landscapes, big skies and sense of space are each highly sensitive to wind turbine development. This is because the presence of tall vertical features in these expansive areas of open landscape would impede upon the sense of space and the large skies. The rural character and sense of tranquillity across the marshes would also be influenced by the introduction of elements which would add movement and noise to an otherwise undeveloped landscape, thus increasing the sensitivity. Overall the areas have a high sensitivity to wind turbine development in these terms.		
2.Enclosure and scale	Both character areas are open and exposed with character area 8 having a more defined medium sized field pattern, while area 9 has a larger more expansive character (particularly to the west). The open marsh character of area 9 is however less sensitive to wind turbine development, due to the lack of visual boundaries and having few features that relate to human scale (albeit some drainage mills along the Waveney). Although generally an open landscape, the northern edge of area 8 and eastern edge of area 9 have a greater sense of enclosure with a pronounced ridge rising to 20m in Great Yarmouth's G4:Hobland Estate Farmland and G5: Somerleyton Settled Farmland character areas and small blocks of carr woodland create a definitive edge. This structural containment results in a higher sensitivity due to the relative sense of scale perceived by landform and tree cover. Boats on the river which are visible throughout also provide an element of human scale. Due to the variation in enclosure and scale, the overall judgement on sensitivity is medium.		
3.Landscape and land cover pattern	The landscape and land cover pattern is predominantly grazing marsh although there is a good deal of textural variation due to a combination of elements. Specifically this is provided by reed ronds along the course of the rivers and bands of mixed and coniferous plantation which create textural variation across the areas. This degree of variation in land cover pattern in both areas indicate a higher sensitivity to wind turbine development as does the sinuous dyke pattern found within the Caldecott Marshes in area 9. These patterns are of higher sensitivity to wind turbine development due to the potential of turbines to affect visual perception, although there are large tracts of grazing marsh which are of a lower sensitivity. Overall the areas have a medium-high sensitivity taking all of this into account.		
4.Skylines	Skylines are defined by undeveloped views (with the exception of views east towards Great Yarmouth from area 9) with a simple open character which indicates a higher sensitivity. This is due to the potential for turbines to detract from this simple skyline character. Views of drainage mills in area 8 and in adjacent character areas (areas 18) provide reference to scale and therefore any introduction of tall structures such as turbines have the potential to appear out of scale. The wooded ridges to the east of area 9 and north of area 8 also form distinctive undeveloped skylines and therefore have a higher sensitivity. Overall, due to the relatively remote and untouched nature of these horizons the landscape has a high sensitivity to wind turbine development in terms of skylines.		
5.Perception and experience of the landscape	Perceptual experience in these areas is defined by the sense of rurality and remoteness from within the expansive marshes. There is little in the form of modern development (although some distant views of Great Yarmouth exist from area 9) indicating a higher sensitivity to wind turbine development.		

	Traditional vernacular in the form of drainage mills characterises both areas and due to their perceived historical significance they increase sensitivity. Overall the areas have a high sensitivity to wind turbine development. This is due to the potential for wind turbines to detract from the sense of tranquillity through the introduction of modern, large scale features.
6.Historic landscape character	The landscape retains a number of elements of historic significance (drainage mills, Burgh Castle, the Augustinian Priory at St. Olaves, and Wicker Well and Summerhouse Water gardens) which are sensitive to wind turbine development. These cultural elements are considered sensitive to wind turbine development due to the potential to affect the coherence of these features and the ability to appreciate them. In landscape terms, the area is primarily comprised of 19th-20th century grazing marsh although there are areas of sensitive 17th century rectilinear enclosures and curvilinear marsh boundary patterns. Overall the area is considered to have a medium-high sensitivity to wind turbine development, due to the potential of large scale elements to affect the scale and coherence of historic landscape and cultural features.
7.Visual sensitivities and intervisibility with areas outside the Broads	There are expansive views out across the marshes although these views are contained by rising ridges (20m) to the north of area 8 and east of area 9, which reduces sensitivity. The wooded ridge of Great Yarmouth's G5: Somerleyton Settled Farmland character area also filters views thus resulting in a landscape which is less sensitive to wind turbine development. However due to the open and more expansive views into the marshes and due to the elevation of the higher ridges and their prominence in views, they are of a higher sensitivity. Although the ridges screen distant views, their prominence on the edge of the Broads indicates a high sensitivity to wind turbine development in visual terms.
Discussion on landscape sensitivity	This character area grouping has a high sensitivity to wind turbine development due to the special qualities of the Broads represented within these areas (wide, open landscape, sense of tranquillity and mostly undeveloped skylines), all of which would be sensitive to wind turbine development. The remote character, the sense of rurality and the undeveloped nature of these areas create a landscape which is sensitive to wind turbine development. It is however recognised that there is a degree of intrusion from adjacent areas (particularly from G4 within Great Yarmouth) as a result of pylons, boatyards and caravan parks which reduce this sense of tranquillity, although this is localised. The degree of visual containment to adjacent character areas also reduces sensitivity, although the elevated ridges are highly sensitive to wind turbine development due to their prominence. Due to the combination of sensitive characteristics, these character areas are of high sensitivity to wind turbine development overall. This judgement also applies to large infrastructure for off shore wind farm schemes, such as pylons.

Sensitivity to different turbine heights

Land within the character areas		**Land outside the Executive Area**	
Small (15-20m)	**H**	Small (15-20m)	**H**
Medium (20-50m)	**H**	Medium (20-50m)	**H**
Large (50-70m)	**H**	Large (50-70m)	**H**
Very large (70m+)	**H**	Very large (70m+)	**H**

Commentary:
Due to the nature of the open, expansive and undeveloped marshes, this grouping of character areas has a high sensitivity to wind turbine typologies of all scales. This is primarily due to the potential impacts on undeveloped skylines, the sense of scale in relation to historic features (particularly in relation to drainage mills and Burgh Castle) and the perceptual experience of such a remote landscape. As set out above, the majority of these characteristics are highly sensitive to wind turbine development, due to the potential to impact upon the coherence and character of the landscape and influence the perception of scale.

Landscapes outside the Executive Area
Relevant character areas and sensitivities:

Great Yarmouth/Waveney -
A1: Waveney Rural Wooded Valley: Fieldwork has confirmed that the wooded ridge to the edge of area A1 which incorporates Waveney Forest is prominent and therefore sensitive in relation to the Broads.

G4: Sensitive elements of this area in relation to the Broads and revealed through field survey are the low wooded ridge which adjoins the north eastern part of Broads LCA 9 and Burgh Castle Roman Fort, which occupies the top of the ridge. These are prominent features in relation to the Broads.

G5: The wooded parkland fringes on the plateau to the edge of the Waveney Rural Wooded Valley form undeveloped skyline elements to the east of the Broads, which contribute to this setting and are therefore sensitive.

Due to the level of intervisibility with adjacent prominent ridges outside the Broads, these landscapes are considered to have a high sensitivity in relation to the Broads, to larger scale turbines. Although screened in parts by woodland blocks the prominence of these ridges reduces the ability to screen turbines and therefore they are judged to have a high sensitivity in relation to the Broads.

Commentary on different cluster sizes

Single turbine
Small clusters (<5 turbines)
Medium (6-10)
Large (11-25)
Very large (>26)

Land within the character areas		**Land outside the Executive Area**	
Single turbine	**H**	Single turbine	**H**
<5 turbines	**H**	<5 turbines	**H**
6-10 turbines	**H**	6-10 turbines	**H**
11-25 turbines	**H**	11-25 turbines	**H**
>26 turbines	**H**	>26 turbines	**H**

Commentary:

Due to the level of visibility and prominence of adjacent ridges, the landscape has a high sensitivity to all clusters of turbines, due to their potential to introduce visual clutter to an undeveloped skyline.

Landscapes outside the Executive Area

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Great Yarmouth/Waveney -
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