

Adopted Supplementary Planning Guidance

Wind Energy

This guidance sets out policies for the consideration of proposals for wind turbines within South Holland District. As Supplementary Planning Guidance this note will be regarded as a material consideration in the determination of planning applications.

1.0 Introduction

- 1.1 Wind energy is an abundant natural resource. The United Kingdom has one of Europe's windiest climates and therefore the exploitation of this resource will increasingly become an important element in the delivery of sustainable energy strategies.
- 1.2 The exploitation of wind energy within the District could make a useful contribution to overall energy needs. However, the extraction of this resource remains a controversial subject. Wind turbines evoke strong reactions. To some they are a source of fascination and beauty, to others they are an alien feature at odds with the traditional character of the countryside. The reconciliation of these views is difficult and, as pressures grow to seek new sources of sustainable energy, the frequency with which these issues become sources of conflict in the countryside could inevitably increase. However greater community involvement in renewable energy projects and promoting small scale schemes through community strategies can help alleviate potential conflicts of interest and provide wider understanding.
- 1.3 The District Council is aware of debates about certain other suggested negative impacts of wind farms, namely impact on property values and impact (from low frequency noise) on health. We note that there is currently an apparent lack of substantive evidence proving that such impacts exist. However, if any such impacts are proven to exist then this can be expected to influence the Council's attitude to proposals for wind energy.
- 1.4 It is national policy to promote sustainable approaches to energy generation and therefore the reconciliation of the negative aspects of wind energy should be tempered by an awareness of the impacts of other less sustainable forms of energy generation, for example the continued burning of fossil fuels. It should also be acknowledged that wind turbines, unlike many forms of energy generation, have reversible impacts. They can be removed from the landscape and the footprint of the turbine easily removed and restored to its original condition.
- 1.5 The Energy White Paper aims to put the UK on a path to cut its carbon dioxide emissions by 2050 with real progress by 2020. Renewable energy is seen as making a considerable contribution to these aims.
- 1.6 Offshore wind generation in the North Sea has a lot of potential and could reduce the need for onshore schemes in Lincolnshire. However off shore generation projects are not covered by the land-use planning system.

2.0 Wind – potential renewable energy resource

- 2.1 An approximation of the wind resource for South Holland is possible through the use of a Department of Trade and Industry database which contains estimates of the annual mean wind speed throughout the UK. The data is gathered from air-flow models that estimate the effect of topography on wind speed. There is no allowance for the effect of local thermally-driven winds. It also makes no allowance for topography on a small scale or local surface roughness (such as tall crops, walls, or trees), both of which may have a considerable effect on wind speed. The results are therefore an approximation and further wind data should be obtained through on-site assessment when proposing new schemes.
- 2.2 The windiest parts of South Holland district are to the east, and therefore turbines sited purely for wind speed considerations would lie at some distance from Spalding which is the largest consumer of electricity in the District. Clearly, wind speed is not the only consideration when determining the location of a wind turbine and the east of the District is closest to the Wash, a site of international importance for wildlife. The current land use and historic, ecological, environmental and landscape designations, as well as land ownership, local electricity demand, access to the distribution network and site access are also major considerations when choosing a site. Modern wind turbines are much quieter than their predecessors. The potential visual impact of a turbine is usually of greatest concern to the local community and the developer. Visual intrusion may be difficult to quantify, since it is often based on individual perceptions. However, in fenland areas such as South Holland, where intrusion would be so obvious, it will be necessary to take account of both visual and landscape effects of the development.
- 2.3 When considering wind speed, the height of the turbine has to be taken into account and so wind speeds at specified heights should be measured. Wind speed is a technical consideration for developers. However the Local Planning Authority will also require information regarding wind speeds when determining planning applications.
- 2.4 Regional Planning Guidance for the East Midlands identifies targets for the provision of wind energy in Lincolnshire. South Holland DC will work to achieve those targets through the planning process but will not expect to go beyond them until they have been met in other counties in the Region.

3.0 Ministry of Defence and Civil Aviation Authority Requirements

- 3.1 The MoD will assess proposals for radar interference and other defence implications. The CAA will also assess proposals concerning the impacts to civil aircraft operations. The CAA have produced a document entitled “Wind Energy and Aviation Interests-Interim Guidelines”. Their views and guidance contained within subsidiary documents will have to be taken into account in determining any planning applications for wind turbines.
- 3.2 The Council will expect developers to have taken account of the impact of wind turbines on radar and aircraft.

4.0 Dealing with proposals for Wind Turbines in South Holland

4.1 This guidance sets out the criteria against which applications for wind turbines will be assessed. These criteria relate to:

- Landscape and visual Impact (Section 5.0);
- Connection to the electricity distribution network (6.0);
- The effect on local amenity and quality of life (7.0)
- Wider environmental impact including nature conservation interests and the built environment (8.0);
- Traffic Generation and vehicular access (9.0);
- The cumulative impact of new development (10.0).

5.0 Landscape and Visual Impact

5.1 The characterisation of the countryside of England is set out in the Countryside Agency's publication *The Character Map of England*. The Agency has classified the whole of England by describing *Landscape Character Areas (LCA's)*, defined as:

*"...single unique areas and are the discrete geographical areas of a particular landscape type."*¹

5.2 The South Holland District lies wholly within the large area of low-lying land which has been classified as *The Fens*. The Fens LCA is by no means homogeneous. *Countryside Character Volume 6* acknowledges this fact, observing that:

"Although at first acquaintance the Fens can seem monotonous, there are marked variations and graduations as one moves from fen to fen and, more noticeably, between areas with different lengths of settlement history."

5.3 The finer grain of landscape assessment below the national/regional scale is at the Local Authority scale, which has been mapped and described and results in the definition of landscape types which have unity of character, due to landform, land cover and distinct patterns of elements.

5.4 The Countryside Agency has defined within The Fens LCA four broad distinctions, described as follows:

- The 'Settled Fens' or 'Townlands' which run in a broad arc inland from the Wash, between King's Lynn and Boston
- The extensive 'Peaty Fens' or 'Black Fens' which were finally comprehensively drained in the 17th to 19th centuries
- The fens of south east Lincolnshire between the Townlands and the Wolds, the last area to be drained in the early 19th century
- The band of Wash Marshes reclaimed from the Wash by construction of sea wall defences begun in the 17th Century.

¹ *Landscape Character Assessment – op.cit.*; s.2.8, p.9.

- 5.5 The finer grain Local Authority scale of assessment has established the presence of three of the above broad distinctions within South Holland District. These are classified as *Landscape Character Types*, as follows:
- The Settled Fens Landscape Character Type
 - The Peaty Fens Landscape Character Type
 - The Wash Marshes Landscape Character Type
- 5.6 Draft Regional Planning Guidance for the East Midlands (RPG8) includes a policy entitled 'Regional Priorities for Renewable Energy', and identifies Regional Renewable Energy Targets for individual counties, including Lincolnshire. There is therefore pressure to accommodate wind turbine generators in the landscape of the South Holland District.
- 5.7 It is accepted that there is a need to take a positive view of wind turbine location, in the interests of achieving government policy targets, whilst avoiding developments which would be considered detrimental to landscape quality. Accordingly, the identification and plotting at the finer grain Local Authority scale of assessment is the first stage in determining the capacity of the South Holland landscape at the more detailed level to 'absorb' wind turbine developments without detriment to its landscape quality.
- 5.8 The model for assessing suitability was that of a potential development of 8 wind turbines of 100 metres height to blade tip, following the granting of planning consent on appeal for such a development in open fenland at Deeping St Nicholas in May 2003. It is considered sensible to expect that further wind turbine developments of a comparable size might receive favourable consideration, allowing for no adverse cumulative impact through inter-visibility between prospective sites. Therefore, this model was judged to be appropriate for determining landscape capacity values throughout the South Holland District.
- 5.9 The inherent characteristics and condition of the Landscape Character Type form the *baseline* level for consideration, assessed for 1km grid squares. Added to this was careful consideration of the following key indicators:
- The presence of Conservation Areas
 - The presence of Scheduled Ancient Monuments
 - The existence of significant visual receptors of high sensitivity (residential properties) which have views over the surrounding countryside and an absence of low level screening by adjacent vegetation
 - The existence of medium sensitivity receptors such as major recreation sites or routes, such as the National Cycle Trail
 - The presence and frequency of detracting visual elements in the landscape, especially power stations, high and medium voltage electricity transmission lines and associated infrastructure, communications masts, large scale industrial and commercial buildings (including extensive glasshouses, packing houses and agricultural/horticultural storage and processing facilities), and visual clutter at the urban fringe.

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- 5.10 The outcome of this exercise is the production of a Landscape Capacity Values Map (see Appendix). This shows that much of the South Holland District's landscape is classified as either unsuitable or highly unsuitable for locating wind energy developments, based upon the model of 8 turbines at 100 metres high to blade tip.
- 5.11 There are some tracts of land within the Settled Fens Landscape Character Type which have been classified as moderately suitable for such developments, typically those affected adversely by the landscape and visual impact of high voltage electricity transmission lines and associated infrastructure, urban fringe clutter and large scale industrial and commercial developments. This has occurred to such an extent that the integrity of the landscape has been compromised and there is consequently a reduced sensitivity to change.
- 5.12 In addition, there are two clusters of grid squares which have been classified as suitable. One of these – on the former Wingland Aerodrome site south east of Sutton Bridge – has a square classified as highly suitable. This is as a consequence of the dominating visual effects of the Sutton Bridge power station and the plethora of high voltage lines in the vicinity, linking to the major installation south of Walpole Marsh. This site has very few residential receptors nearby. Those present benefit from a high degree of adjacent screening by vegetation. This is reinforced by dense belts of recent planting associated with the programme for the development of the Wingland Industrial Estate by South Holland District Council. Extensive earth banks with mature vegetation along the River Nene and the northern side of the A17 provide considerable visual containment.
- 5.13 The smaller cluster lying to the west of the A16 to the north of Spalding has a very low incidence of residential receptors, some of which benefit from low-level screening by vegetation, and the developments to the northern, western and southern edges are predominantly industrial, commercial or form commercial horticulture production units. To the east, the raised banks of the River Welland provide visual containment.
- 5.14 The cluster of four grid squares in the Peaty Fen Landscape Character Type covering the Deeping St Nicholas Wind Turbines site and its immediate environs lies in an area identified as 'unsuitable' for wind turbine development. The Council takes the view that the Deeping St Nicholas site itself remains 'unsuitable' in landscape capacity terms. However, it is recognised that the construction of the 8 100-metre high wind turbines at this location would adversely affect the open landscape and reduce its quality, thus increasing its capacity for some further turbine development without detrimental loss to the remaining local landscape quality. The advice of this guidance is that the site is identified as unsuitable for further development unless and until the planning permission is implemented.

- 5.15 Those areas classified as being highly unsuitable are the most sensitive to detrimental loss of landscape quality as a consequence of wind turbine developments. This factor will be the accepted measure of '*acknowledged importance in the local environment*' referred to in Policy E17 of the South Holland District Local Plan (1998). These areas should not be considered as suitable for any scale of wind turbine development other than for very carefully sited *individual* turbines in exceptional circumstances. Any such scheme would also need to be rigorously assessed entirely on the basis of its individual attributes.
- 5.16 In certain circumstances, those areas classified as being unsuitable in this Guidance could be open to consideration as being moderately suitable, provided that no detrimental effects on landscape quality could be properly demonstrated, in the event of the following factors being taken into account:
- less than 8 100-metre high turbines being proposed in any one development
 - up to 8 smaller turbines being proposed
 - individual wind turbines associated strictly with local use, i.e. not exporting to the electricity grid as their *prime* purpose.
- 5.17 This would be a matter for each proposal being judged on its individual attributes, within the wider context of these recommendations.
- 5.18 Unacceptable landscape and visual impact is defined as being the anticipated degree of adverse impact upon the intrinsic landscape qualities of the area, or level of visual amenity, being such that they are detrimental.
- 6.0 Connection to the electricity distribution network**
- 6.1** The ability to connect to the network will be a factor to be taken into account in considering proposals.
- 7.0 The Effect on local amenity and quality of life**
- 7.1 Planning permission will only be granted for wind turbines in the countryside where:
1. the environmental impacts of noise generation, shadow flicker and electromagnetic disturbance are demonstrated to be acceptable using established criteria;
 2. the individual or cumulative effect of turbines in the countryside do not create unacceptable visual or landscape impacts.

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- 7.2 All proposals for wind turbines in the countryside should be accompanied by a statement indicating clearly why the design, height, number, colour, density of turbines and blade diameter are considered most appropriate to the proposed location. They should also indicate whether they are to serve a local development or a supply network/grid connection and how that is to be achieved. They should also indicate the proposed access arrangements during the construction phase. The District Council will impose a condition to ensure that wind turbines are removed when no longer required and require appropriate restoration works to be undertaken on the site. The Council will also require the submission of a Flood Risk Assessment with each application.
- 7.3 Proposals should be accompanied by a statement indicating how the development will achieve a net environmental gain.
- 7.4 '*Unacceptable visual and landscape impact*' is defined in the section entitled Landscape Capacity and Assessment Criteria. 'Net environmental gain' is defined as providing a net gain to enhance the environment relative to its current state, the state of technology and the status quo.
- 7.5 The presence of a turbine or a small group of turbines in the countryside will not, on its own, be a justifiable reason for the refusal of a planning application, except in those areas of South Holland District which have been classified as being highly unsuitable or unsuitable for wind turbine developments which would be detrimental to their landscape quality, as reflected in Local Plan Policy E17. For all other areas of the District, a measured assessment of the impacts of the proposal on the landscape will be required to determine whether it may be accommodated without detriment to landscape quality.
- 7.6 Where the environmental impact of a proposal on the local environment is deemed to be so great that it outweighs the benefits, in terms of the production of renewable energy, then it will be resisted. Conversely, where localised environmental impacts may be deemed to be offset by environmental gains, then proposals for turbines will normally be regarded as acceptable.
- 7.7 The District Council will require a statement indicating the reasons why certain elements of any scheme are considered appropriate to a site. These elements will include:
- Blade diameter
 - Height
 - Layout and orientation
 - Turbine colour
 - Grid connection infrastructure (including sub-station building(s))
 - Wind monitoring mast design and siting.

- 7.8 This statement should be prepared by competent bodies or individuals, with regard to the particular issue being addressed. The level of detail required will vary according to each scheme and again early consultation with the District Council is necessary to ensure that all relevant information is supplied. It is unlikely that proposals for single or pairs of small turbines (up to 15 m in height) will require exhaustive statements. However, for schemes larger than this, the District Council will require all statements addressing possible landscape and visual impacts to be undertaken by qualified landscape architects (i.e. Chartered Landscape Architects).
- 7.9 Site location and the size, design, layout, spacing density and colour of turbines are all important considerations in terms of visual impact. The form and pattern of the landscape into which they are set is also very relevant.
- 7.10 By their nature, wind farms demand a prominent location. They cannot be hidden behind tree belts, and there are no hills or high ground to reduce visual impact against the skyline. The use of the natural grain of the land may also, in certain circumstances, be used to good effect whilst still ensuring that turbines receive good 'wind runs'.
- 7.11 There is some evidence to suggest that wind turbines become more 'accepted' in the landscape over time. As they are still a comparatively rare sight in the East Midlands, their immediate impact is particularly startling. It can be argued that these perceived impacts will lessen and their presence in the landscape become more accepted, especially when the awareness of their environmental benefits increases in the wider community.
- 7.12 Whilst wind turbines can bring sustainability benefits, they are not wholly non-polluting because concrete is used in their construction. This includes the laying of concrete foundations in the ground. Wind farm developers will therefore be required at the outset to enter into Planning Obligations and Bonds will be required where appropriate to ensure that, once they have ceased to be operational, sites are cleared and normally returned to their former condition.

8.0 The Impact of Wind Turbines on Nature Conservation and the Built Environment

- 8.1 Planning permission will not be granted for wind turbines where they:
1. would either directly or indirectly result in the loss of the scientific, nature conservation or historic interest of any of the following designations:
 - The Wash (as defined in the Wash Estuary Management Plan);
 - The Wash Special Area of Conservation;
 - Sites of Special Scientific Interest;
 - Sites of Local Nature Conservation Importance;
 - Local Nature Reserves
 - Scheduled Monuments and other archaeological sites of national or regional importance or their setting;

- Conservation Areas and Grade I and II* Listed Buildings and their setting, including important views of church towers or spires; and
 - Historic Parks and Gardens and their setting.
2. may have a serious long term impact on migratory or transient species listed in the National or Local Biodiversity Action Plans or protected under the provisions of the Wildlife and Countryside Act 1981 (as amended) The Habitats Regulation 1994.
- 8.2 The District Council will apply the “precautionary principle” to all cases where there may be a reasonable doubt concerning the conclusions reached as a result of any ecological impact assessment undertaken.
- 8.3 The presence of Conservation Areas, each of which has a church tower or spire at its core which is frequently prominent in unencumbered medium to long distance views from the surrounding Fens landscape, is a much-valued asset in the South Holland landscape. These churches are of historical significance and, prior to the 20th century, were the tallest buildings in the Fens landscape, functioning as important location markers and points of visual reference. Any proposed wind turbine which is demonstrated to have significant adverse effects upon the views of such church towers or spires within a 2-kilometre radius of such features will be considered to be unacceptable.
- 8.4 The delivery of sustainable development requires the consideration of social, economic and environmental issues. Therefore, development that is likely to result in a negative impact on the scientific or historic value of protected sites will be resisted. However, the instances in which these conflicts arise are expected to be few and could be minimised or avoided through early consultation with the Local Planning Authority. Because of the way marine boundaries have been drawn, the Council may identify ‘buffer zones’ around areas to be protected., such as the statutory designations of the Wash..
- 8.5 Wind turbines may affect birds in the following ways:
- direct conflict with blades
 - impact on birds occupying regular sites for breeding or wintering
 - impact on feeding sites.
- 8.6 Given the international importance of the Wash as a major breeding and wintering site, proposals for development close to the coastal area will be closely scrutinised. Again, early consultation with the District Council and other bodies such as the Royal Society for the Protection of Birds, Lincolnshire Wildlife Trust and English Nature is recommended. The Council will formally consult these bodies and relevant local groups when a planning application is received. In determining applications the Council will also have regard to subsidiary documents. Guidance contained within RSPB publication ‘Wind Turbines and Sensitive Bird Populations: Spatial Planning for Wind Turbines in the Fens Natural Area’ will be especially

relevant. Where there is a reasonable doubt concerning the true impacts of proposed wind energy development, the District Council will resist development as a precaution against any adverse long term impact upon the species concerned.

9.0 Traffic Generation and Vehicular Access

9.1 This will be a factor to be taken into account in considering proposals.

10.0 Cumulative Impact of Wind Turbines

10.1 Given the size, scale and form of wind turbines, the Council takes the view that there is a limit to the number of such developments that can be accommodated in the District without causing unacceptable harm to its amenity and character. This may involve 'intervisibility' or the frequency with which someone travelling through South Holland encounters wind turbines.

10.2 There will always be arguments about the 'need' for and 'viability' of wind farms. Generally, these are not planning considerations. The Council takes the view that once the capacity identified in this guidance has been reached, no further wind turbines / wind farms will be permitted. The construction of any wind turbine will necessitate the re-assessment of the grid squares within sight of that development in order to re-define the Landscape Capacity Values for that locality.

10.3 As well as considering the cumulative impact of turbines on the landscape, the Council will consider proposals in relation to the total amount of wind energy power output expected from the District. This will be assessed as a reasonable proportion of Regional wind energy requirement. This is likely to be the limit beyond which further wind energy developments are more likely to deliver a net environmental loss.

11.0 Environmental Impact Assessment (EIA)

11.1 Wind farms are now covered by the requirements of the Town and Country Planning (Environmental Impact Assessment)(England and Wales) Regulations 1999. Circular 02/99 (Environmental Impact Assessment) states that in the determination of the need for a full Schedule 2 Environmental Impact Assessment (EIA), need will be dependent upon the likelihood of there being significant effects arising from the development. The likelihood of significant effects will generally depend upon the scale of the development, and its visual impact, as well as potential noise impacts. EIA is more likely to be required for commercial developments of five or more turbines, or more than 5 MW of new generating capacity. However, EIA or a similar assessment may be required for any number, given the potential impact of even a single turbine.

12.0 Current Local Plan Policies for the Assessment of Wind Turbines

12.1 The South Holland District Local Plan (adopted 1998) has the following Policy and this is repeated in the First Deposit Draft revised local plan:

Policy E17

The District Council will support the development of renewable energy schemes provided that it can be shown that such development would not harm interests of acknowledged importance in the local environment.

In assessing proposals for renewable energy schemes, the Council will have particular regard to the following issues:-

- 1 The immediate and wider impact of the proposed development on * the landscape;**
- 2 The need to protect features and areas of natural, cultural, historical and archaeological interest;****
- 3 The measures that would be taken, both during and after construction, to minimise the impact of the development on local land use and residential amenity;**
- 4 The local and wider benefits that the proposal may bring.**

* The adopted policy uses the word 'of' but the Council is of the view that this was an error. Through this SPG, the policy will be interpreted as now written.

** The Council believes that the views of church towers and spires are highly significant in the fen landscape and will take them particularly into account in applying this part of the policy.

12.2 An explanation of the term 'wider impact' is given in the Landscape section above. The kinds of benefits that would accrue from a wind turbine development are considered in more detail below.

13.0 Relationship with Non-Renewable Energy Generation

13.1 South Holland has 2 gas-fired power stations which, together with associated pylons, have a significant visual impact on the District. The Council may be prepared to consider small scale schemes (of one or two turbines) where these provide an alternative to unsightly pylons.

14.0 Wind Turbines associated with existing or proposed Employment Development and in Urban Areas

14.1 Planning permission will be granted for wind turbines associated with existing or proposed employment development where they do not conflict with the provisions of policy E17 or other policies of the South Holland District Local Plan, or guidance contained in this policy note.

14.2 Planning permission will be granted for wind turbines associated with existing or proposed employment development provided that they do not have a negative impact on neighbouring uses, for example, in terms of electrical interference or the working conditions nearby and satisfy various environmental safeguards laid out in the South Holland District Local Plan or this policy note.

14.3 Where proposals for wind turbines are received within the development boundaries of towns or villages, or urban areas, their suitability will be assessed against policy E17 and other relevant policies of the South Holland District Local Plan.

15.0 Medium/Large Wind Farms and the Local Plan Process

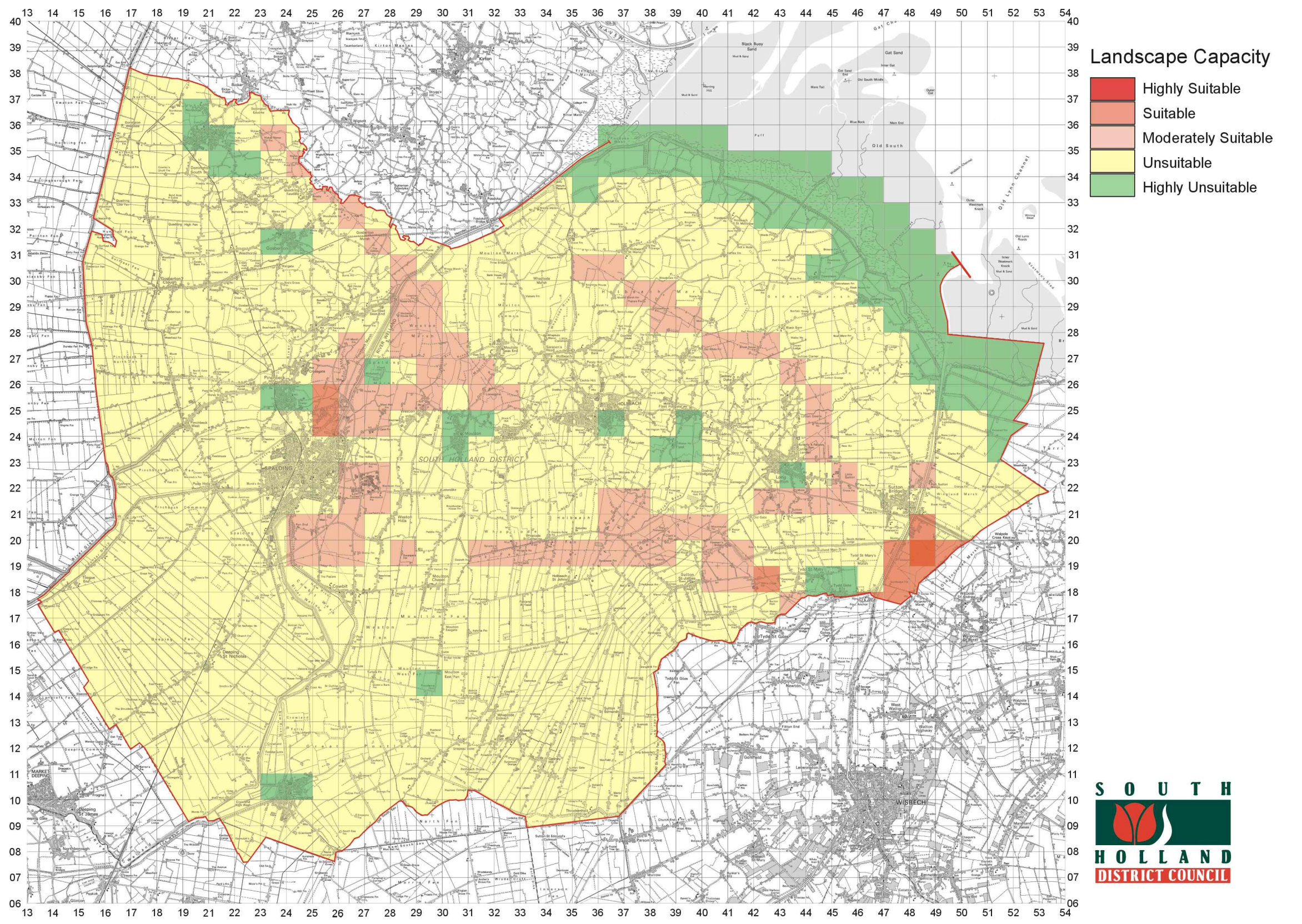
15.1 Proposals for future wind farms should be brought forward through the statutory local plan process and be subject to the full rigour and scrutiny that process provides. This will allow full consideration to be given to the optimum location for such development, to local, regional, and national needs and to the avoidance of sensitive locations and designations. (see paragraph 23, PPG22, Renewable Energy)

16.0 Domestic Wind Turbines

16.1 The Council recognises that single turbines may be sought which directly serve farms, other enterprises and dwellings in the countryside as their *prime* purpose. In dealing with these, the following will be considered:

- the height
- colour
- associated infrastructure (connecting cables and buildings)
- siting in relation to local landscape features
- siting in relation to setting of Listed Buildings, Conservation Areas and especially the views of prominent church towers or spires.

Developers are urged to contact the Council at the earliest opportunity to discuss their proposals. Early discussion will help to ensure more efficient handling of applications and to clarify the scope of information and supporting material required.



Landscape Capacity

- Highly Suitable
- Suitable
- Moderately Suitable
- Unsuitable
- Highly Unsuitable

