Broads Forum
7 February 2013
Agenda Item No 7

Landscape Sensitivity Study
Report by Landscape Officer

Summary: In 2012 the Authority commissioned a landscape sensitivity study for wind turbines, photovoltaics and associated infrastructure. The study which built on the previous landscape character work completed in 2006, considered the sensitivity of the key landscape characteristics of the Broads local character areas to these forms of development. This report outlines the reason for the study and summary findings to the Forum.

1 Introduction

1.1 There is considerable demand for renewable energy production in the UK. As a consequence, there has been a rise in planning applications in and within the setting of the Broads area for

- single and multiple turbine developments (of both a small and large scale);
- photovoltaic arrays; and
- potentially for infrastructure requirements (such as pylons) for the transmission of electricity from offshore wind farms to land base distribution networks.

1.2 This study was commissioned to provide clear baseline information for the evaluation of future planning applications and provide a resource for potential applicants in order that they can address landscape issues relating to these types of development as part of their initial project proposals.

2 Scope of Study

2.1 The initial part of the study involved providing additional perceptual and experiential characteristics to each of the 31 Local Character areas (LCA). Crucially the study picks up the relevance and influence of those areas which lie outside the Broads Authority s own executive area i.e. the setting of the Broads. These external landscapes do much to influence the character of the Broads and the perceptual and experiential aspects for users of the Broads area.

2.2 In order to make the information relevant and useful to our neighbouring Planning Authorities, reference is made within the text to their own character assessments. The neighbouring Authorities were involved in the design of the

study and with the selection process for the contractors. Each of their planning departments has been kept fully appraised of the study s findings and has each received a CD of the report and have been provided with links to the web site.

2.3 For each of the LCA s, a description relating to the key characteristics has been included. These are:-

- Special and scenic qualities of the Broads which are represented in the character area
- Remoteness and tranquillity
- Sense of time depth
- Enclosure and scale
- Light and reflectivity
- Pattern and texture
- Skylines.
- Visibility and intervisibility
- Accessibility and experience/recreation.

2.4 Wind turbines

The subsequent sensitivity assessment required the consultants to consider a range of scenarios. The following heights for turbine developments, both within and outside the Executive area, were evaluated:

- Small (0-20m)
- Medium (20-50m)
- Large (50-70m)
- Very large (70m+).

In addition an assessment was undertaken which related to the potential range of turbine numbers as part of the development. This range was from a single turbine to multiple developments of 26 and over. Again this assessment was undertaken for land within and outside the executive area. Pylons for electricity transmission purposes are typically around 50 -60 metres in height and although the type of impacts are likely to be marginally different, this study has incorporated comments on the sensitivity of the landscape to this type of development.

2.5 Solar PV developments

The sensitivity of the landscape was assessed for the following types of photovoltaic development scenarios:

Roof mounted solar PV requiring planning permission
Roof mounted solar PV of up to 1 hectare area
Small scale field mounted solar PV of up to 1 hectare area
Medium scale field mounted solar PV of 1-5 hectares area.

3 Summary findings

3.1 The Landscape Sensitivity Study findings are documented in two parts and can be found on the Broads Authority web site.

Part 1 - Introduction baseline landscape and methodology . The report can be found at Part 1 Baseline Landscape and Methodology.pdf
The assessment process has used recognised and accepted industry standards. The landscape criteria used for assessment purposes and the methods used to illustrate the findings were all agreed with the Authority prior to the start of the assessment work.

Part 2 comprises -Summary of result which includes;

Appendix 1-Glossary

Appendix 2-Development Characteristics

Appendix 3 Part 1- Detailed assessments of photovoltaics
Part 2 - Detailed assessments of turbines

The above provide the detailed assessments for the individual or grouped local character areas.
Part 2 link Part_2_Summary_of_results.pdf

Appendices link Landscape Sensitivity Study for Renewables & Infrastructure - Broads Authority

3.2 Part 2 Presents an overall summary of the results of the sensitivity assessment. The full landscape sensitivity assessments for each of the landscape character area groupings are represented in tabular format in Appendix 3 of the study document. The study advises that these full assessments should always be referred to when interpreting the maps and tables in Part 2.

3.3 In summary, the report states

Generally the landscapes of the Broads are of rural and largely undeveloped, often remote character, whether simple, expansive marshes or complex interplay of river, broads, reed and carr. The built features they contain are relatively small in scale (e.g. church towers, vernacular settlement and wind pumps). As such, the landscape's sensitivity to wind energy development and solar PV tends to be fairly high, both in terms of landscape character and representation of special qualities. Reflecting these attributes, the assessment has found that there are no landscapes in the Broads which score low or moderate-low ([1] see note below) to the development of wind energy or solar PV schemes".

[1] relates to sensitivity.

3.4 The report also has acknowledged that

LCA groupings often contain areas of higher and lower sensitivity within them – it is therefore important to note the context of the individual evaluations in Appendix 3. Variations may occur to urban fringes for example such as at Thorpe Island or Oulton Broad, or where there is a greater perception of influences affecting the special
qualities. The highest sensitivity areas are generally those which display the broadest and most intact range of special qualities and historic/landscape patterns. LCA groupings often contain areas of higher and lower sensitivity within them – it is therefore important to note the context of the individual evaluations in Appendix 3. Variations may occur to urban fringes for example such as at Thorpe Island or Oulton Broad, or where there is a greater perception of influences affecting the special qualities. The highest sensitivity areas are generally those which display the broadest and most intact range of special qualities and historic/landscape patterns".

For this reason it is important that applications for development are assessed on an individual basis using the framework and general findings of the study as a baseline.

3.5 For Forum information a black and white example of the one of the individual assessment sheets for a LCA can be found at Appendix A.The detailed assessment sheets, may cover one or more of the character areas. There is a commentary on each of the key landscape characteristics and an assessment within a 5 point scale as to sensitivity rating.

4 Conclusions

4.1 The landscape study provides a robust and objective assessment of the sensitivity of the Broads landscape to renewable energy projects such as solar PV and wind turbines. The findings of the study will also be valuable in providing a baseline for evaluating infrastructure projects which may be required to support offshore windfarm developments, such as pylons construction..

4.2 The study has highlighted the key characteristics of the Broads landscape that are likely to be impacted upon by such developments and has made an assessment of the sensitivities of the individual character areas to a range of development scenarios. These assessments will prove helpful to developers of potential projects for both within and outside the Broads executive area, in that it has highlighted those aspects which will have to be addressed as part of any landscape appraisal to be submitted as part of a planning application.

4.3 The study findings also provide a valuable resource for our neighbouring planning authorities who may have to deal with planning applications for solar PV and wind turbine developments near to our executive area boundary.

4.4 The study has highlighted that the Broads landscape in the main exhibits a high degree of sensitivity to large scale renewable energy projects and that no landscape in the Broads have low or moderate-low sensitivity to such developments.

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Date of Report:	15 January 2013
Broads Plan objectives:	CC4.4 LC1.3
Appendices:	APPENDIX A example of detailed assessment for wind turbine development LCA 3