Appendix 1: Cheverton Down Landscape Assessment

# **Cheverton Down – Isle of Wight**

## **Proposed Wind Energy Project**

Review of Landscape and Visual Impact Assessment for Applicant's Environmental Statement



November 2009

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## 1 INTRODUCTION

#### 1.1 Purpose

1.1.1 In August 2009, Capita Symonds Ltd (CSL) was commissioned by the Isle of Wight Council to undertake a review of a landscape and visual impact assessment (LVIA) for three wind turbines located at Cheverton Down. The LVIA was produced by LDA Design on behalf of Cornwall Light & Power.

#### 1.2 Report Structure

- 1.2.1 The review is presented in two parts.
- 1.2.2 The first section (Chapter 2) provides a desk-top assessment of the LVIA using Institute of Environmental Management and Assessment (IEMA) methodology for carrying out issue-specific reviews, including:
  - An assessment of the LVIA report methodology;
  - An assessment of the quality of presentation and communication of the assessment and results;
  - A review of the completeness of information, transparency by which the conclusions have been derived, and usefulness as a decision-making tool.
- 1.2.3 The second section (Chapter 3) provides a review of the findings and conclusion of the LVIA, including:
  - Identification of the landscape and visual sensitivity of the site
  - Assessment of the applicant's photomontages and Zone of Theoretical Visibility (ZTV) plan, including the appropriateness of viewpoints chosen and their technical accuracy;
  - Assessment of the potential effects on Hampshire County Council's landscape typology, including magnitude of change and significance of landscape and visual impact;
  - Assessment of the potential effects on the Isle of Wight AONB, including magnitude of change and significance of landscape and visual impact;
  - Assessment of the potential effects on other landscape designations that might be affected by the proposal;
  - A review of compliance with Town and County Planning (Environmental Impact Assessment) England and Wales) Regulations 1999 (as amended) and other planning guidance and regulation of Isle of Wight Council as may be relevant.
- 1.2.4 The CSL report's findings were informed by site visits made on October 7<sup>th</sup> and November 20<sup>th</sup> 2009. Although on the first visit visibility was hampered by low cloud, enough information was gained to provide an assessment of the quality

and veracity of the LVIA's presentation material and findings in regard to scale of image, relation to surroundings, screening and obstructions, accuracy of GPS location and data panel information. Intervisibility and the setting of settlements and designated landscape and properties were verified on the second visit in clear conditions.

1.2.5 Chapter 2 of this report contains the desk review; Chapter 3 reviews the LVIA findings; Chapter 4 presents CSL's summary and conclusions and Chapter 5 provides our schedule of recommendations.

## 2 IEMA ISSUE SPECIFIC REVIEW

#### 2.1 Review of Applicant's LVIA

- 2.1.1 The applicant's LVIA is reviewed herewith, using a methodology that is based on IEMA issue specific review criteria. The items covered include:
  - An assessment of the methodology and approach of the applicants LVIA in regard to current legislative requirements and professional guidelines and best practice;
  - Landscape baseline conditions;
  - Audit of methodology used to identify landscape and visual sensitivity, magnitude of change and significance of effects or impacts;
  - Landscape and visual mitigation, management and monitoring provisions.

#### 2.2 Method and Approach

- 2.2.1 The LVIA states the methodology.
- 2.2.2 A Scoping Report was agreed and the formal Scoping Opinion was received by CLP on 4 September 2008. A copy of both the Scoping Report and Scoping Opinion is contained in Appendix 1 (Volume III) of the ES. Although the LVIA (ES Section 7) makes no reference to it, the ES introduction (Section 1) states that the LVIA was amended to accommodate comments received.
- 2.2.3 No schedule of references was provided within the LVIA. ES Para 7.2.3 references the Countryside Agency's *'Landscape Character Assessment Guidance'* 2002; the Landscape Institutes and IEMA's *'Guidelines for Landscape and Visual Impact Assessment'*, 2<sup>nd</sup> Edition 2002; and the Scottish Natural Heritage's *'Visual representation of Wind Farms Best Practice Guidance'*.
- 2.2.4 The Response to the Scoping Report recommended a further schedule of documents should be used in preparation of the LVIA, listed in Appendix F.
- 2.2.5 The Scoping Opinion included a commendation by the Environmental Information Services for the 'detailed and clear Scoping Request'.
- 2.2.6 However, the Response to the Scoping Report suggested the area of 25km radius from the turbines is used by the LVIA is not an acceptable extent for the purposes of evaluating landscape and visual effects in a landscape of this type. The Scoping Report suggested that because of the 125m height of the proposed turbines, a 35km radius should be used and for the purposes of cumulative assessment, this should be extended to a 60km radius in order to assess the full extent of visual influence likely to result. SNH and other guidance recommend that for 3<sup>rd</sup> generation turbines, 30km is a minimum study area radius. Although this covers more than the whole of the Isle of Wight, the mainland is also affected, particularly the designated landscape of the New Forest National Park.

- 2.2.7 LDA Design have provided a supplementary report, '*Cheverton Down Wind Farm Natural England Wind Energy Consultation Paper – Case Study (8 September* 2009)'. The Natural England consultative document has only very recently been circulated and is still in draft format. Although this document is not what we have been instructed to review, we have undertaken an assessment using the same criteria and methodology proposed by Natural England. This is useful in drawing comparisons to the applicant's findings and our own.
- 2.2.8 The additional LDA report does not change the conclusions drawn by the LVIA and therefore it is not considered to reflect on the LVIA's validity.

#### 2.3 Baseline Conditions

2.3.1 The issue-specific review criteria provided by IEMA state that

"...the ES should describe the current condition of those aspects of the environment that are likely to be significantly affected by the development. An indication of how these aspects could be expected to develop if the project were not to proceed should also be given... the baseline environment should be evaluated, for example in relation to its sensitivity and importance... and limitations of baseline surveys should be recognised."

- 2.3.2 The LVIA baseline section sets out the baseline resources including landscape/historic designations (Isle of Wight AONB, New Forest National Park, and Heritage Coastline) and Landscape Character Areas (including an evaluation of quality, condition, nature of views, and sensitivity to change).
- 2.3.3 It does not assess Registered Parks and Gardens of Special Historic Interest, individual residential receptors (only 3 are evaluated in detail), Public Rights of Way (again, the ES is selective) and Areas of Common Land and Open Access.
- 2.3.4 It also refers to the fact that the proposal is located on the same site as a previously permitted wind turbine development approved originally in 1995 and re-submitted and approved with minor amendments in 2003. We understand the permission is extant. Although the baseline of the existing permission for 3 no. 52m high turbines is a material consideration, it has yet to be constructed. It would be correct for the original permission to be deemed a part of the baseline against which any landscape and visual effects should be assessed. It needs to be clarified that the applicants states that either the extant permission or, if approved, the proposed development would be constructed, but not both.
- 2.3.5 However, the existing permission is not the subject of this assessment, and there is a possibility that the existing permitted scheme will not proceed. It is therefore our approach to assume the baseline is for the site without the existing permitted scheme in place in the first instance, and then next to consider what the residual impacts would be if it was in place.
- 2.3.6 Local sensitivity may differ from the generic evaluation. The ES evaluated Landscape character areas for the whole study area in question, which technically means that the effects of the wind turbine development are 'averaged' for the whole of each character area, no matter what the distance from the site. This results in a 'dilution' of the assessed levels of impact, which in our view is misleading. A more site-specific approach would be to evaluate the effects within

banded distances. For  $3^{rd}$  generation wind turbines, these distances are recommended by the *SNH Guidance: Cumulative Effects of Windfarms 2005* to be 'Close' (up to 2.4km) Middle (2.4 – 12km) and Distant (12 – 30km).

- 2.3.7 The 'weighting' that this provides to the assessment would show that a wider part of character areas will be affected to a greater degree, which is more realistic reflection of perception. An ES that indicates that all character areas are affected, 'on average', to the same degree, i.e., not significantly, is not reflecting the role that distance plays in the effect of a development on character. This should be acknowledged by the methodology in the applicant's ES.
- 2.3.8 The LVIA makes no reference to future development of the local landscape in the area; it is understood that no similar proposals have been received within the study area that might lead to cumulative impacts.

#### 2.4 Choice of Viewpoints

- 2.4.1 The Scoping Report suggested that 17 viewpoints would be represented, locations as follows:
  - 1. Brighstone (443200, 082750);
  - 2. Shorwell (443200, 082750);
  - 3. Newbridge (441450, 087550);
  - 4. Godshill (452300, 081800);
  - 5. Solent Way regional trail, Pennington Marshes (4332600, 092500);
  - 6. Lepe Country Park (445700, 098650);
  - 7. Coastal Path, Tennyson's Monument (432500, 085300);
  - 8. Coastal Path, Hanover Point (437800, 084000);
  - 9. St. Catherine's Hill, St. Catherine's Down (449400, 077200);
  - 10. Solent Way regional trail, Titchfield Haven Visitors Centre (453300,112200);
  - 11. NCR 67 between Yarmouth and Freshwater (435600, 088700);
  - 12. Coastal path, Newton Bay (440700, 092000);
  - 13. Barnes High, Brighstone Bay (443700, 080750);
  - 14. Chillerton Down (447500, 083300);
  - 15. Carisbrooke Castle, Newport (448300, 087450);
  - 16. Arreton Down (453900, 087500); and
  - 17. Brading Down (458600, 087000).
- 2.4.2 The Scoping Report also stated that the final choice of viewpoints would be determined in conjunction with Isle of Wight Council and the Isle of Wight AONB.

Para 7.4.10 of the ES details the process by which the final viewpoints were agreed upon. 15 full photomontages were produced and a further 2 wireframe panoramic views were provided by the applicant.

#### 2.5 Magnitude and Significance

2.5.1 IEMA issue specific review criteria recommends that clear methodologies should be stated in production of Visual Impact Assessment (VIA):

*`High quality VIA depends on a detailed and explicit declaration of the basis upon which all aspects of the VIA have been made, especially magnitude, sensitivity and significance'.* 

#### 2.6 Landscape Sensitivity

- 2.6.1 The applicant's LVIA sets out how landscape sensitivity has been derived in Para 7.2.16. The assessment also gives an indication of how viewpoint sensitivity has been derived, being based on a 3 point scale.
- 2.6.2 The identification of significant effects is aided by a matrix, which is helpful. The table shows how the calibration of levels of effects (significance) is derived. However, the table is not 'symmetrical' (i.e., there are four criteria for Magnitude and three for Sensitivity), which makes the logical meaning of the results somewhat difficult to follow. Also, the SNH Guidelines recommend that a 9 point scale is used, particularly for 3<sup>rd</sup> generation wind turbine assessment. An increased range or scale of evaluation is needed to avoid thresholds of change being too abrupt; determining 'grades of value' is not as cut and dry with large turbines as it is with 1<sup>st</sup> generation turbines.

#### 2.7 Magnitude of Change

- 2.7.1 Magnitude of change is predicted as a degree of change (but does not state that this is a deviation from the established baseline conditions) in Para 7.2.17 of the ES. There is no indication that this is for anything other than the operational phase only. The IEMA review criteria recommend that each phase (installation, operation and decommissioning) of the proposal is assessed. The magnitude of change resulting from construction and decommissioning phases has not been assessed in any detail because the assessment considers that the short duration of the effects of the construction and decommissioning phases will not cause any significant effects.
- 2.7.2 The method used to establish magnitude of change to landscape character and visual amenity from a viewpoint is described, being based on a 3 point scale.
- 2.7.3 The method used to establish magnitude of change on landscape fabric and magnitude of change on Landscape Character Areas is not set out clearly. There is a lack of descriptions of magnitude of change in the method section which is considered to undermine the assessment somewhat. This applies in particular to the affect that distance might have on magnitude.

#### 2.8 Direct and Indirect Effects

2.8.1 Para 3.3.3 of the Scoping Opinion refers to the need to identify 'direct landscape effects (e.g. new planting or loss of existing trees or hedgerow) and indirect effects (e.g. changes to perception of the landscape, character of the area, or experience for another property, road or footpath)...' The LVIA acknowledges the

need to identify both direct and indirect effects in Para 7.3.3, but makes no further reference to either. It also recognises '...short, medium and long-term, permanent and temporary effects and considers cumulative effects (which are not relevant in this instance since there are no other planning applications for other wind farms in the study area)'.

#### 2.9 **Positive and Negative Effects**

2.9.1 Concerning positive and negative effects, there is a confused approach. Section 3.0 of the ES, *Legislative Context and EIA Methodology,* states in Para 3.4.1:

'The assessment identifies the key 'environmental effects' of the development proposal. Environmental effects can either be Beneficial or Adverse and includes direct and indirect effects, short, medium and long term, permanent and temporary, cumulative, positive and negative effects'.

2.9.2 However, the ES LVIA states in Para 7.2.24:

`Making positive/adverse judgements for effects of wind farms on landscape character based on current guidance would be of questionable value, particularly ...that any 'out of character' development should be considered adverse...For this reason, such judgements are not included in assessments'.

2.9.3 The Scoping Opinion also refers in Para 3.3.2 to the need to '*identify any potential landscape impacts (both positive and negative).*' The objective of best practice wind farm design is to locate the turbines so as to not significantly affect sensitive receptors and/or to add positively to the character of an area. If a development is out of character, it may none-the-less be deemed to provide a positive contribution to the environment in balance due to CO<sup>2</sup> footprint reduction. Determination of whether significance of effects add or detract to the landscape in the specific location of the proposal is, in our opinion, essential in guiding planning authorities in their decision making.

#### 2.10 Significance of Effects

- 2.10.1 'Significance of effects' refers to the residual effects that would exist following installation of the approved scheme, and additionally mitigation of both that scheme and the current proposal. This critique focuses chiefly on the current proposal, making reference to estimated cumulative effects resulting from the combined existing permission and current proposal if or when information is clear enough to make comment. In this regard, we make reference to ES figure 7.8, ZTV for approved scheme, as the only diagram included in the ES for that purpose.
- 2.10.2 The IEMA's guidance on review criteria states that

`...assessment of significance should consider the impact's deviation from the established baseline condition, the sensitivity of the environment and the extent to which the impact will be mitigated or is reversible'. 2.10.3 The judgements that underpin the attribution of significance of effects on landscape character and visual amenity from specific viewpoints during operation have been presented clearly. ES Para 7.2.20 states:

*'Significance of effects (in terms of the EIA regulations) are those that are moderate or greater'* 

- 2.10.4 We concur that this is a reasonable threshold to use.
- 2.10.5 The judgements of sensitivity of LVIA assess the entire study zone as a sum of individual parts, on which the average impact should be applied. We do not believe this is a realistic way of evaluating the effects. The evaluation should apply to an area in which there is a magnitude of effect to be assessed not a total 'visual shadow' or a character area that has no physical relationship to the site. The area that is visually or physically affected by the development should then be evaluated in terms of the significance of the level of positive or negative, direct or indirect effect caused.

#### 2.11 Mitigation

2.11.1 The ES recognises that significant effects on landscape character and visual amenity are difficult to mitigate. In ES Para 7.2.7, the assessment states:

"...opportunities for significant mitigation measures are inevitably limited due largely to the nature of the proposed development. The scale of the development means that there are no real meaningful onsite opportunities for incorporating mitigation measures..."

- 2.11.2 The assessment states that the proposed switch room would be small scale single storey building constructed from local materials. It would be advisable for the Council to determine these materials through a Planning Condition.
- 2.11.3 There is no mention of environmental enhancement this is something that perhaps could have been included e.g. restoration and management of hedgerows. However, it will be necessary to visit the site to consider if this would be appropriate.
- 2.11.4 There are no details of any management plans or monitoring included in the assessment. However, this is acceptable in this instance since there is no secondary/additional mitigation to deliver.

#### 2.12 Presentation and Communication of Information Objectively

- 2.12.1 The presentation of the chapter on landscape and visual effects is not clearly laid out and logical. The summary and conclusions do not enable the main points of the assessment to be understood by a non-specialist.
- 2.12.2 A glossary has been provided.
- 2.12.3 Insufficient references are provided within the text. The extent of references appears to be quite limited; however the reference texts are as per the Scoping Opinion.

#### 2.13 Figures and Tables

- 2.13.1 Table 7.1 is not sufficiently developed to assess third generation wind turbines.
- 2.13.2 The summary tables in sections 7.2.16 (Sensitivity), 7.2.17 (Magnitude) and 7.2.19 (Significance) are not easy to follow. Statements of sensitivity, magnitude and significance are incorporated within text paragraphs as bulleted points rather than set out clearly as an easily referenced table and lack substantive explanation.
- 2.13.3 Effects on Receptors are not set out in tabular style and are difficult to locate in the text. This does not aid the reader to understand how the prediction of effects on the surrounding landscape has been made. It might be more appropriate if a summarised version of the table in Appendix Para 7.7.8 a table is used within the main text to read and understand the summary to enable the reader to quickly identify and compare effects.
- 2.13.4 The Landscape Effects summary Table in Para 7.7.8 sets out the significance of impact for all assessed receptors. A number of the levels of significance do not tally with table 7.1, and it is not obvious if the table is to be used to show the 'average' overall scores. If so, the inclusion of mixed generic and site-specific evaluations confuses the results. The table does not demonstrate how the AONB designation is added to other criteria; this is treated as a single value rather than an over-arching value (which in our view is the case).

#### 2.14 Photomontages/Wireframes

- 2.14.1 The LVIA provides a detailed photomontage methodology in Appendix III, which largely follows best practice. However there are a number of shortcomings, as set out below:
  - The viewpoints are represented to a large degree as proposed in the Scoping Report as a series of wireframe images and photomontages.
  - All montage images are considered to show too wide a representation of the views, as if using a wide-angled lens; the angle of view is not stated in the data panel. Many of the images appear to be greater than a 90 degree angle of view. This has the effect of reducing the prominence of the turbines in the panorama, as noted by the SNH *Visual Assessment of Windfarms: Best Practice* in Para 3.8.3:

'If a wide-angle lens is used, for example for panoramic effect, the size of the subject in the foreground will increase in relation to the background; in the case of windfarms in a landscape scene, the effect will be to under-represent the relative size of the towers and underestimate their visual magnitude.'

The horizontal field of view of the eye is closer to an angle of 45 degrees, and thus if the panoramas were restricted to this inclusive angle, the focus on the turbines would be greater. The LVIA should state the included angle of view; it should preferably show any ranging rods that should have been set up in the field to determine the extent of each panorama to be taken by the photographer on site, to allow simpler comparison by others.

- Some of the images show the turbines in 'hazy' conditions. Best practice requires clear atmospheric conditions to be used to show 'worst case'.
- The photomontage images show the turbine blades turned in a consistent direction, possibly towards prevailing wind. Best practice recommends that the blades should be turned towards the observer in every instance to show the worst case.
- Information provided in the data panel on each photomontage is incomplete; focal length and exposure are required for comparison by others.
- 2.14.2 The schedule of viewpoints is set out in Table 2.1 below, with approximate equivalents of original scoping report locations indicated in brackets. The quality of each figure is indicated in the right hand column, as high, ok, or low. Locations are set out in Appendix A Plan 3.

Table 2.1 Assessment of LVIA Viewpoints

View no	Viewpoint	Nearest Turbine (km)	Comments	Montage Quality
1	Cheverton Down, Worsley Trail 44381, 083752	0.4km	Represents views from Worsley Trail. Included angle of view is OK	ОК
2 (1)	Brighstone Moortown Lane 442473, 082998	1.7km	As per scoping report. Cloud behind turbine – diminishes visibility impact. Demonstrates development to be widely visible from this settlement. Included angle of view is OK	ОК
3 (2)	Shorwell, B3399/Cove Hill 445783, 082539	2.3km	As per scoping report. Turbines concealed by foreground buildings and garden vegetation; view could be improved by re-positioning viewpoint by a few meters. Important view demonstrates the development to be widely visible from this settlement Included angle of view is OK	Low
4	Chillerton Down 447379, 083379	3km	As per scoping report. Included angle is OK. Turbines angles away from viewer; impact is reduced	Low
5	A3055, nr Barnes High 444807 080223	4.1km	As per scoping report. Telegraph pole aligns with one turbine – poor micro- siting of viewpoint. Included angle of view is OK	Low

6 (9)	St. Catherine's Oratory, St. Catherine's Down 449370, 077299	8.5km	As per scoping report. Included angle is too great. Turbines angles away from viewer; impact is reduced. Clouded sky/haze reduces perceived impact	Low
7 (4)	Godshill 452600, 081579	8.6km	As per scoping report. Included angle is too great. Turbine angles away from viewer; impact is reduced. Haze reduces impact	Low
8	A3056 nr Apse Heath 455919 083448	11.5km	Replaces Brading Down. Included angle too great	ОК
9 (16)	Arreton Down 453910, 087209	9.8km	As per scoping report. Included angle is too great. Turbines angles away from viewer; turbines are not centred in panorama	ОК
10 (15)	Carisbrooke Castle 448571 087693	5.4km	As per scoping report	ок
11(3)	Wellow 438992 088145	6.1km	Replaces Newbridge view. Scale of view is too small – does not reflect true size of turbines when image held at 500mm from eye; position of two left hand turbines in montage seem to be less visible than wire frame; turbines turned away from viewer. Location shown on location plan is incorrect by a margin. Forestry plantation serves to demonstrate scale of turbines	Low
12 (7)	Tennyson's monument 432496 085333	11.4km	As per scoping report. Included angle too great; haze reduces visibility of turbines; not centred	ОК
13	Pennington Marshes 432499 092369	14km	Solent Way. Included angle too great. Haze reduces visibility of turbines	ОК
14 (6)	Lepe Country Park 445700, 098650	14.1km	As per scoping report. Included angle too great. Haze reduces visibility of turbines	ОК

15	Spinnaker Tower, Portsmouth 462939 099939	24.2k m	Additional at recommendation of scoping report. Spectacular vantage point. Demonstrates an example of how the wind farm development could add to the landscape by providing a focal landmark visible from a tourist hot-spot. Montage is not of sufficient quality to illustrate this, however.	Low
16	St Boniface Down 457265, 078893	13.9k m	Additional at recommendation of scoping report	ОК

- 2.14.3 The ES states additional viewpoints (16 and 17) were added by the applicant following discussion with the IoW Council, but only 16 figures accompanied the information provided to us. The wireframe views indicate that the proposed turbines would be visible from well used tourist vantage points on the mainland. The photomontage views have been prepared to mimic atmospheric conditions prevalent at the time, which unfortunately are not as clear as is needed.
- 2.14.4 10 of the 16 viewpoints are further than 6km from the nearest turbine; impacts from beyond 6km are generally considered to be reduced to 'not significant', which means the majority of viewpoints used are of viewpoints that are not likely to illustrate significant impacts. A further 4 or 5 close range viewpoints would help to balance the degree of significance governed by distance. Suggestions include:
  - The on-road cycle route at or near Yafford (2.4 km to nearest turbine), representing Intensive Agriculture Land, Moderate/High sensitivity in close range;
  - The Coastal Path at Chilton Chine (3.5 km to nearest turbine), representing Southern Coast Farmland, Moderate/High sensitivity in close/middle range;
  - PRoW/Bridleway opposite Cheverton Farm on B3323 leading to Chillerton Down, from an elevation of approximately 100m;
  - PRoW/Bridleway N142 leading from the B3323 near Rowborough Farm (1.5 km to nearest turbine), Chalk Downs – B road receptor, Residential receptor and PRoW in close range;
  - The on-road cycle route at or near Newbridge (4 km to nearest turbine), Traditional Closed Pasture in close/middle range;
  - The National Trust car park/BOAT at Westover Down (2 km to nearest turbine), Chalk Down, recreational/PRoW/Bridleway/BOAT receptor in close range;
  - The bridleway near Fore Down at approximate grid reference 83500, 44500 (1 km to nearest turbine), Chalk Down, recreational/PRoW/ Bridleway/BOAT receptor in close range;

- Pitt Place (2.4 km to nearest turbine), Sandstone Gravel Ridges, residential, recreation /cycle and B road receptor in close range.
- West Court, near Shorwell (listed building, overlooking Cheverton Wind Farm site)
- Wolverton Manor, near Shorwell (listed building, overlooking Cheverton Wind Farm site)
- North Court Manor house and gardens, Shorwell (registered house and gardens)
- The village of Limerstone, from the B3399 (Settlement, Residential and Cycle/Recreational Receptors)

#### 2.15 Completeness and Additional Work

- 2.15.1 The following section deals with:
  - How well the LVIA adheres to the requirements of the Scoping Opinion;
  - How complete the information provided is and if any additional work may be required by the applicant to help determine the application;
  - A summation of the main landscape and visual issues that we recommend are taken into account in assessing the application.

#### Adherence to Scoping Opinion/Issues Raised by Consultees

- 2.15.2 Cornwall Light and Power have to some degree followed requests for amendments to their ES included in the responses to the scoping report submitted by consultees.
- 2.15.3 The LVIA does not consider visual impact on *all users of* PRoW's. However, viewpoint 1 represents the view from the Worsley Way, a key part of a network of Public Rights of Way. To assess impact on *all* Public Rights of Way users within the ZVI would be an almost impossible task. The assessment makes reference to PRoW in Para 7.6.96, Effects on Public Rights of Way.
- 2.15.4 Additional views from close range sensitive receptor viewpoints have not been provided.
- 2.15.5 The use of a greater radius distance (30 or 35km) for the area of study has not been incorporated into the ES.
- 2.15.6 The assessment addresses impacts on the AONB (deemed to be significant). The assessment does not presents the primary objectives of the AONB or the New Forest National Park which was not extant when the LVIA was prepared, although it appears that the National Park Authority has not made any subsequent objections in this regard.
- 2.15.7 The applicant responded to most issues regarding viewpoints raised by the Scoping Opinion, but this has not avoided the issues as stated earlier in this assessment.

#### Completeness of Information

- 2.15.8 We believe that the elements of the assessment that are not as complete as others are as follows:
  - No assessment of alternative sites is made;
  - No assessment of construction phase effects is made;
  - No assessment of decommissioning effects is made;
  - Duration of effects is not referred to;
  - The assessment of visual effects to users of Public Rights of Way, Open Access Land, and recreational open space, particularly on the Worsley Trail and users of this route;
  - The assessment of visual effects to residential receptors;
  - No definition of positive or negative effects is made;
  - How the proposal would affect the primary objectives of the Isle of Wight AONB;
  - The influence that distance has on landscape character and visual effect.

#### 2.16 Summary of Issues

- 2.16.1 In general the LVIA conforms to the key IEMA issue-specific criteria. However, it is below the required standard in providing information in the following areas:
  - The study area is not as extensive as is required;
  - Base line conditions are not fully stated;
  - The basis for assessment criteria is not clear and should be revised in accordance with best practice guidance, accompanied by clear and understandable reasoning;
  - Format for descriptions of landscape context do not adequately consider distance within the study area according to best practice guidelines;
  - Magnitude of change does not properly account for the effect of distance;
  - Magnitude of change and sensitivity are based on an unbalanced matrix that uses a truncated scale (too few points on the scale) that results in an overly-simplistic assessment. It appears some judgements that are between points are 'rounded' up or down. When the logic of the matrix is worked through, many of the values that are derived are logged as less rather than more significant than they should be;

- Direct and indirect affects are not differentiated;
- Positive and negative effects are not included in the assessment;
- Significance of effects is averaged over the whole study area rather than from areas that are directly or indirectly affected. Areas that have no physical connection to the site are used to illustrate that the impact of the development is on average not significant. This is a conclusion that can be applied to almost any development, and does not evaluate the level of impact the development would have on receptors or landscape character that are of relevance to the site in question;
- Mitigation is not addressed;
- Presentation and communication of information is not clear, particularly the tables;
- The photomontage presentation does not represent the impact of the proposal according to best practice; technical issues undermine the veracity of the predicted impacts;
- Although the Scoping Report is thorough, the ES does not take into account all issues raised by the response to the Scoping Report;
- The ES is not complete in a number of areas, particularly in addressing residential receptors and PRoW.

## 3 REVIEW OF LVIA FINDINGS

#### 3.1 Introduction

- 3.1.1 The following chapter deals with:
  - Identification of site-specific landscape character and sensitivity against existing baseline (i.e., 'clean site') and against the site with wind turbines installed with existing planning permission;
  - Assessment of the applicant's photomontages and Zone of Theoretical Visibility (ZTV) plan;
  - Assessment of the potential effects on the Isle of Wight AONB;
  - Assessment of the potential effects on other landscape designations;
  - Assessment of positive and negative impacts;
  - A review of compliance with planning guidance and regulation relevant to the issues assessed above.

#### 3.2 Landscape Character Analysis

- 3.2.1 The site is located within Natural England Joint Character Assessment (JCA) 127, 'Isle of Wight'. The three turbines are located within the Isle of Wight AONB and is in Isle of Wight AONB character area 'Chalk Downs', close to 'Sandstone Hills and Gravel Ridges', as defined by the AONB Management Plan Landscape Character Assessment (LCA). The ES does not extend the regional LCA typology assessment beyond the Isle of Wight.
- 3.2.2 The full JCA typology statement is copied in Appendix B. The Isle of Wight LCA typology sheets are copied in Appendix C.
- 3.2.3 The ES does not reference the 'sea-scape' a large portion of the study area 25km radius is occupied by sea. It should be noted that as the water around the Isle of Wight is used extensively by recreational craft and is frequented by cruise liners, the lack of assessment of effects from sea-faring receptors is a major omission of the ES. This is particularly notable when the ZTV is considered.
- 3.2.4 The ES does not attempt to assess the magnitude of change that occurs to landscape character due to distance according to radius bands, a system that is recommended by the SNH and other guidance and is widely employed to determine the effect of distance on the scale of effects of both character and visual sensitivity. It may be considered that character does not change due to the distance that a type of landscape is from a development. However, there is a 'cross-over' between assessments of landscape character and visual impact, where a character is changed by visual association (indirect impact) with a development. The landscape character typology 'Wind Farm Landscape' has been coined to describe a landscape that contains wind farms, for example. Distance is a major determinant as to the degree of change that is exerted on the

character of a landscape. It should therefore be accounted for in a Landscape Character Assessment. Our banding is illustrated in Appendix A, Plan 4.

#### 3.3 Landscape Sensitivity of Site and Surroundings

- 3.3.1 Rather than reprise the ES's LVIA, we have used the Natural England consultation document's guidance to assess the landscape character of the site and to asses the sensitivity of the site in terms of 'capacity' to absorb wind turbines. The assessment is carried out as a 'clean site'. In order to compare the 'residual effects, we also provide an alternative baseline that assumes the existing wind turbine permission to be in place. With reference to Table 3.1 below, the evaluation determines if the criteria indicate a high capacity (indicated by a 'Yes' in the right hand column) or low (indicated by a 'No'). The assessment consists of deciding if each of the criteria apply to the site, irrespective of any predetermined landscape typology or landscape designation. Guidance on applying the NE assessment criteria is located in Appendix D.
- 3.3.2 It should be underscored that the Natural England criteria are not formally agreed, but we have used very similar criteria for evaluation of wind farm capacity in Cumbria using the Cumbria Wind Energy Supplementary Planning Document. The latter is an adopted document that forms apart of the North West Regional Spatial Strategy No guidance has been provided to establish the weight of each criterion. It is also not established what level of positive or negative indicators constitute overall high capacity.
- 3.3.3 However, it is apparent that as there are few indicators of high capacity then the site does not have a high capacity. The total number 'Yes's' and 'No's' are added at the foot of Table 3.1 to provide 'straw poll' indication of over all sensitivity.

	Clean Site	With Existing permission		
Criterion	Definition of Criterion	Indicators of High Capacity	Yes = No =	High Low
Scale	A large scale landscape, such as extensive rolling uplands or expansive plains, where the turbines are in proportion with the landscape, is likely to have greater capacity for wind energy development than a small scale landscape where turbines can appear to dominate.	<ul> <li>Landscape, or parts of landscape, described as broad, extensive or expansive</li> <li>Large areas of consistent landscape type</li> <li>Large parcel (i.e. field enclosure) size</li> <li>Large height differential (over 300m) between valley floors and summits (upland areas only)</li> </ul>	Yes No Yes No	Yes No Yes No
Landform	Landform that is smooth and convex, or flat and uniform will generally have greater capacity for wind energy development than dramatic or rugged landform. This is because the former types of landform tend to be less prominent and less distinctive in character	<ul> <li>Landform described as smooth, flat or uniform (not dramatic, rugged or prominent)</li> <li>No prominent ridgelines, smooth contour patterns</li> <li>Wide contour intervals and gentle slopes (less than 10 degrees)</li> <li>Convex landform</li> </ul>	No No No	No No No No

Table 3.1 Site-Specific Assessment of Landscape Capacity for Cheverton Down Wind Farm (using Natural England Assessment Criteria)

#### Cheverton Down Wind Farm Landscape and Visual Impact Assessment Review

Landcover	Simple, regular, uncluttered landscapes with sweeping lines and extensive areas of consistent ground cover are likely to have higher capacity for wind energy development than areas with more complex, irregular or intimate landscape patterns (for example ancient, irregular field systems).	<ul> <li>References to simplicity or regularity in landscape descriptions</li> <li>Limited range of land cover types and landscape features</li> <li>Extensive areas of consistent land cover</li> <li>Regular enclosure patterns</li> <li>Simple coastal form (coastal areas only</li> </ul>	No No No No	No No No No
Human influence	A high degree of human influence on the landscape will generally mean that it has greater capacity to accommodate wind energy development. Turbines are likely to be less conspicuous in brownfield or industrial landscapes already affected by built structures such as masts, pylons or chimneys, provided there are no visual conflicts where the structures are seen in close proximity. Commercial forestry also introduces a human influence to upland landscapes and so will generally have higher capacity.	<ul> <li>References to brownfield or industrial character, or to intrusive features or degraded habitats</li> <li>Presence of features such as major transport corridors, transmission lines, factories, industrial and business parks, quarries, wind farms</li> <li>Presence of MOD land, intensive farming, commercial forestry or brownfield sites</li> <li>Relatively low tranquillity levels</li> </ul>	No No Yes No	Yes Yes Yes
	Landesance that do not form a distinctive	. No references to key ob dince, video	No	No
	backdrop or context tend to have greater	No references to key skylines, huge lines, or scarps etc	No	No
Skylines and	those with strong visual features and focal points such as hillton monuments, church	No obvious topographic features of this kind     Absence of distinctive natural	No	No
Settings	spires or designed landscape features, which may form important skylines, landmarks or settings for settlements.	<ul> <li>Absence of distinctive natural features, historic features or settlements whose settings might be vulnerable to change</li> <li>Absence of distinctive monuments or landmarks</li> </ul>	Yes	Yes
	Landscapes that are visually contained by	References to strong hedgerow, tree     and woodland source	No	No
	have limited inward and outward views will	Presence of large forestry plantations     or many amall woodlands	Yes	Yes
	extensive inward and outward views. Such	<ul> <li>Visual containment by landform</li> </ul>	No	No
Visibility and Views	parts of turbines and for associated access	<ul> <li>Relatively distant (more than 2km) from principal settlements</li> </ul>	No	No
	middle range views from scenic routes, well-known vistas or tourist viewpoints will decrease a landscapes capacity for wind energy development.	Relatively distant from key tourist routes, viewpoints and National Trails	No	No
Landscape Quality (condition)	Areas where the condition and integrity of landscape patterns, elements and features are relatively good will have less capacity for wind energy development than areas where condition is poor.	Areas identified as having significant issues in relation to landscape condition (e.g. extensive loss of field boundaries, poor woodland management, poor habitat condition, habitat fragmentation)	No	No
Saania	Scenic quality, that is visual appeal due to important views, visual interest and variety, contrasting landscape patterns, or	<ul> <li>No reference to specially distinctive, dramatic or striking characteristics or features</li> </ul>	No	No
Quality	dramatic topography, will generally decrease the capacity to	<ul> <li>Lacking in/ relatively distant from landscape designations</li> </ul>	No	No
		<ul> <li>Not part of a key approach to or setting of designated landscapes</li> </ul>	No	No

#### Cheverton Down Wind Farm Landscape and Visual Impact Assessment Review

Wildness and tranquillity	The presence of a relatively wild and/or tranquil character (due to remoteness, freedom from disturbance and factors such as openness and perceived naturalness) will reduce the capacity of a landscape to accommodate wind energy development. The introduction of wind turbines may alter perceptions of wildness and tranquillity, introducing movement, sound and light effects and possibly bringing a more industrial character	<ul> <li>No reference to wild or tranquil character</li> <li>No reference to remoteness, openness or naturalness</li> <li>Relatively low tranquillity levels</li> <li>Significant levels of activity, noise, light pollution or other disturbance</li> <li>Lacking in/relatively distant from special, distinctive or prominent historic features</li> <li>Plan 10, Appendix A indicates that the site is located with an area of high tranquillity, according to CPEE assessment</li> </ul>	No No No	Yes Yes Yes No
Historic Environment	The presence of sites and areas containing archaeological, historical or built environment features that are highly valued for their historic environment interest will decrease capacity for wind farms, particularly where these features may directly affected by construction works and/or access tracks; or where or enjoyment and the ability to interpret these features may be diminished.	<ul> <li>No special concentrations of such features</li> <li>Historic environment features make limited contribution to landscape perceptions and enjoyment</li> </ul>	No No	No No
Cultural Associations	Specific cultural (i.e. historical, folklore, literary or artistic) associations relating to the landscape may result in decreased capacity for wind energy development if the character or perceptions of the landscape concerned are likely to be significantly degraded.	<ul> <li>No specific cultural associations of note</li> </ul>	No	No
Amenity and Recreation	Areas offering access to high quality landscapes, memorable places, special experiences and to a range of opportunities for open-air recreation will have less capacity for wind energy development due to potential effects on sites accessibility and/or on the quality of the recreational experience enjoyed by the public.	<ul> <li>Limited amenity and recreation interests or provision</li> <li>Few opportunities to access and enjoy natural beauty</li> <li>Poor access from centres of population</li> <li>Not AONB or National Park</li> <li>Not registered common or CROW</li> </ul>	No No No Yes	No No No Yes
OVEALL LE	38 No 5 Yes	30 No 13 Yes		

- 3.3.4 The summation of Table 3.1 above indicates that the site without any development has a high landscape sensitivity, which corresponds to low capacity for wind turbine development. The site with the existing permission still has a low capacity for additional or increased wind turbine development according to this approach.
- 3.3.5 In regard to the extent to which this evaluation applies, the guidance does not provide a specific limit or method of applying weights or values accordingly. Our approach is to review those areas that are either physically linked to the site in terms of character or where within the ZTV. Our plans in Appendix A illustrate that there is a potentially very high level of visibility of the site within the study area. The topographic model also illustrates how the site is located in an elevated area, shielded by higher ground only to the north. The effect of this ridge is to provide a visibility shadow to an extent of some 3 km to the north. Beyond that distance, the proposed turbines would become increasingly more visible as the observer moves away from the shielding land form.

3.3.6 Plan 11 in Appendix A shows the extent of (protected) ancient woodland but the majority is (unprotected commercial forestry. While the effect of existing woodland should not be ignored, it is considered likely that the Forestry Commission would harvest the stand of timber to the north of the site within the next 25 years, i.e., within the life span of the turbine development. Timber harvesting cycles of softwood in southern England can be as little as 20 – 25 years from planting. The plantation in question is of mixed age, but the majority is likely to be at or over this age. Further assessment of the likelihood of visual exposure as a consequence should be carried out.

#### 3.4 Effects on Isle of Wight AONB

- 3.4.1 The applicant's LVIA determines significance of effect on landscape character separately to the effect on the landscape designation. It is of interest that the applicant's LVIA concludes that there would not be a significant effect on the character of the Isle of Wight AONB character area, but also concludes that the effect on the AONB itself is significant. While the separation of the two sets of effects is a correct approach, the conclusion that an AONB could be of less significance than the site-specific landscape character of the area is not supported by evidence. The AONB designations are as per Plan 14, Appendix A.
- 3.4.2 The SNH guidance and EIA Regulations for England and Scotland do not specifically rule on the threshold, leaving it to the assessor to determine what is appropriate according to the individual circumstances of each development. To be acceptable, the residual effects of the development on landscape character needs to be subjected to far more rigid and stringent assessment than developments located in areas outside of landscape designations of national importance. The area which is affected is open to judgement. It is clearly not the whole Island nor should it be 'averaged' from the whole land area of the AONB.
- 3.4.3 The proposed development is in direct contravention of the purpose of the AONB designation.

#### 3.5 Effects on Other Designated Landscapes

- 3.5.1 The effect on Heritage Coast is considered by the applicant to be of a lower level of sensitivity than the AONB due to its status as a local designation. The value of 'High/Moderate' sensitivity is none-the-less of 'significance'. Due to the ES not using distance to determine levels of magnitude, it was concluded that views form the Heritage Coast as a whole are not significant. This is not a usual approach; there are stretches of the Heritage Coast that are subject to significant effects. Using the 'worst case' approach should be used to evaluate the level of significance.
- 3.5.2 The effect on the North Court Manor House and Gardens, Shorwell does not appear to have been considered in terms of landscape and visual impact by the applicant. Other listed properties within 2.4km of the nearest turbine include West Court and Wolverton Manor, also near the village of Shorwell. The impacts of the development on the character and setting of these listed buildings should be fully evaluated by the ES.
- 3.5.3 Effects on National Trust properties have been assessed to some degree. They are treated as private residential receptors. They do however have additional

'receptor values', including recreational and Listed Building status, which accentuates their sensitivity.

3.5.4 Effects on New Forest National Park are assessed using the 25km radius study area. The assessment does not evaluate the National Park as subject to significant effects.

#### 3.6 Effects on the Character and Visual Quality of the Isle of Wight AONB

- 3.6.1 To assess the potential impact on a landscape designation it is necessary to ascertain why it has been put in place and for what reasons the boundaries have been set.
- 3.6.2 The Hampshire County Structure Plan ceased to have any effect from 27 September 2007.
- 3.6.3 Isle of Wight AONB's Management Plan states (bold type added for emphasis):

'The primary purpose of designation is the conservation and enhancement of natural beauty (which includes wildlife and cultural heritage, as well as scenery).

The designation helps to protect not just the natural features - the trees, fields and open spaces - but also settlements...that are unique characteristics of the countryside. The designation allows for the development of communities and economic... in ways that further enhance the character of the AONB'.

3.6.4 In respect to Renewable Energy within the AONB, the Management Plan states:

Government planning policy on renewable energy is set out in Planning Policy Statement (PPS) 22 - Renewable Energy and PPS 1 - Climate Change. This guidance strongly promotes the use of renewable technology and whilst National Parks and AONBs are not excluded from renewable development, the policy acknowledges the need to assess the sensitivities of the designation. PPS 7 -Sustainable Development in Rural Areas states that major developments should not take place within nationally designated areas except in exceptional circumstances and identifies stringent assessment requirements necessary for consideration of major applications within the AONB. Regional direction from the Draft South East Plan recognises that within sensitive and protected landscapes the development of renewable energy infrastructure, particularly wind turbines, has the potential to have adverse impacts on visual and amenity impacts, and may adversely affect biodiversity. It advises that potential development should be designed and located 'so as to avoid conflict with landscape and wildlife conservation'.

We would therefore expect that all developers of renewable energy schemes should be required to clearly set out the impact of their proposals on the special qualities of the AONB, and how these would impact on the AONB. Proposals need to clearly demonstrate how conservation and enhancement of the area will not be compromised and satisfactorily address the potential impacts, particularly with regard to landscape character and views.

Developers of large and medium scale renewable energy proposals should, as a minimum, prepare Landscape and Visual Impact Assessments before submitting a planning application, to demonstrate how they would provide long-term, sustained support to the economic and social wellbeing of the local community. Particular consideration should be given to the effects of related infrastructure, such as grid connection, and to the cumulative impact of multiple schemes. Additionally, we would expect to see evidence that an adequate site selection process has been carried out, including proper consideration of alternative sites and options outside the AONB, and justification for the chosen site.

#### Wind turbines

Taking into account the high sensitivity of the AONB landscape, in our opinion, commercial-scale wind turbine developments will be unacceptable within or affecting the designated area, unless the requirements of PPS22 are fully satisfied. Even with small single turbine applications for individual community, business or household use, a visual analysis should be required to determine turbine visibility, impact from within and outside the AONB and opportunities for the mitigation of effects.

It is acknowledged that at the current time, **favourable proposals for renewable energy provision within the AONB are most likely to be limited to small-scale individual installations**. Taking into account the sensitivities, size and fragmented nature of the designated area, suitable thresholds for renewable developments are undetermined and a precautionary approach has been applied within this plan.'

3.6.5 Footnote 26 states:

<sup>•</sup>Large Scale refers to those applications classed as major development under Planning & Compulsory Purchase Act 2004, medium scale would apply to anything above domestic size.<sup>2</sup>

- 3.6.6 The Isle of Wight Area of Outstanding Natural Beauty (AONB) Partnership is an independent organisation funded by Natural England and the Isle of Wight Council to oversee the conservation and enhancement of the land covered by the AONB designation (half the land area of the Isle of Wight including the two areas defined as Heritage Coast). Part IV of the Countryside and Rights of Way Act 2000 (CRoW Act) has increased the profile, protection and management of AONBs.
- 3.6.7 Under the CROW Act 2000 AONBs and National Parks are given equal priority under the planning system, under Section 85 public bodies were given a 'duty of regard' when exercising their functions and activities affecting the land.

- 3.6.8 The boundaries of the Isle of Wight AONB were designated in 1963, in accordance with the 1949 National Parks and Access to the Countryside Act. The AONB Management Plan states that the AONB was designated for its `scenic quality'. The current Landscape Character Assessment Guidance (published by the Countryside Agency and Scottish Natural Heritage) defines scenic quality as `landscapes that appeal primarily to the visual senses'. The Isle of Wight AONB Partnership aims to ensure the conservation and enhancement of the area in line with the statutory purpose of the designation. We also work to increase the understanding and enjoyment of the special qualities of this nationally treasured landscape by those who live in, work in or visit the area.
- 3.6.9 The Isle of Wight AONB was visited to understand its character and scenic qualities and form a view on the boundaries of the designation. The Isle of Wight AONB is divided into 5 distinct areas; the site is located within the South-Eastern area, which is a varied landscape containing some rolling farmland, open downs and panoramic views across the Island and coastal areas. This character is reflected in the description of the Isle of Wight JCA (127) and the AONB Landscape Character Assessment (LCA) 'Chalk Downs'.
- 3.6.10 In relation to the boundaries of the Isle of Wight AONB, it is apparent they match the boundaries of the Landscape Character Areas. This was confirmed on site when standing on AONB boundary there is a clear change in character.
- 3.6.11 The LVIA acknowledges that significant effects of high magnitude occur within a 4km radius of the site (Para 7.2.33). However, where these effects do occur (within a 4km radius) the effect has been rated in some instances as moderate. Conversely, in the viewpoint analysis the sites within the 4km radius have been given a high sensitivity, high magnitude leading to an effect of substantial significance. Whilst slightly contradictory in places it is recognised that significant effects will occur within the AONB.

#### 3.7 Effects on Character and Visual Quality on Designated Areas

- 3.7.1 The open aspects and relatively treeless down-like character of the AONB Southwestern section provide many opportunities to see the location of the site. However, if one is standing within the valley immediately south of site where the valley sides are steep and enclosed, the turbines are less visible as the landform shields the turbines from view. The turbines are, however, highly visible from the three closest settlements, namely the villages of Shorwell Brighstone and Limerstone and from the B3323 between Shorwell and Rowborough Farm. The tops of the blades, and perhaps some of the turbine shafts of the closest two turbines, are primarily visible. The photomontage view nos. 2 (Brighstone, Moortown Lane), and 3, (Shorwell, B3399/Corve Hill) clearly show this is the case. This is likely to result in a significant effect on the character or scenic quality of the AONB. There are no similar features visible from these locations, and the turbines will appear unique and out of character.
- 3.7.2 This is in contrast to the assessment that the applicant makes which concludes there will be no significant effect on the character of the AONB Landscape Character Area in section 7.6 of the LVIA.

#### 3.8 Viewpoints and Photomontages Evaluation

- 3.8.1 This section assesses whether the visibility of the proposal has been realistically represented in the applicant's LVIA and whether the viewpoints included in the LVIA are appropriate and representative.
- 3.8.2 The surrounding area was visited to consider those viewpoints agreed in the Scoping Report and Scoping Opinion.
- 3.8.3 As discussed previously there are some issues with viewing scale and location and the degree to which the visualisations provide an accurate impression of the existing/proposed view.
- 3.8.4 As indicated in Tale 3.2 below, we have used a recalibrated matrix that is based on the same that the applicant uses, but removed the 'negligible' criteria. This has the affect of balancing the assessment so that a medium sensitivity corresponding with a medium magnitude of effect results in a moderate significance. In terms of logic this is now correct.

	Magnitude of E	ffect		
Sensitivity	High	Medium	Low	Negligible
High	Substantial	Substantial/ Moderate	Moderate	Moderate/ Low
Medium	Substantial/ Moderate	Moderate	Moderate/ Low	Low
Low	Moderate	Moderate/ Low	Low	Low/ Negligible
Negligible	Moderate/ Low	Low	Low/ Negligible	Negligible

Table 3.2 Landscape and Visual Sensitivity

3.8.5 Table 3.3 below provides an analysis of viewpoints compared between our own evaluation and the applicant's. The values of some of the receptors in this table have been adjusted by the LVIA to take into account such effects as distance and the large scale of the landscape. According to the GLVIA this is an error, as the value of a receptor type does not change; no matter where they are located a resident is a high sensitivity receptor. Rather, the effects of landscape type and distance are accounted for by the landscape sensitivity and magnitude. By applying these judgements accordingly, we come to a range of different conclusions. In all cases, the level of sensitivity is now significant (Moderate or greater), apart from the most distant views.

3.8.6 We have used the applicant's stated values or receptor types and their values for sensitivity and magnitude for the sake of comparison. Locations of the viewpoints are set out in Plan 3, Appendix A.

View no	Viewpoint	Nearest Turbine (km)	ES Assessment		
			Sensitivity	Magnitude	Significance
1	Cheverton Down, Worsley Trail 44381, 083752	0.4km	High	High	Substantial
2 (1)	Brighstone Moortown Lane 442473, 082998 Residential	1.7km	High	High	Substantial
3 (2)	Shorwell, B3399/Cove Hill 445783, 082539 Residential	2.3km	High	High/ Medium	Substantial/ Moderate
4	Chillerton Down 447379, 083379 National Trust	3km	High	High/ Medium	Substantial/ Moderate
5	A3055, nr Barnes High 444807 080223 Residential	4.1km	High	Medium	Substantial/ Moderate
6 (9)	St. Catherine's Oratory, St. Catherine's Down 449370, 077299	8.5km	High	Medium/ Low	Moderate
7 (4)	Godshill 452600, 081579 Residential PRoW	8.6km	High	Low	Moderate
8	A3056 nr Apse Heath 455919 083448 A Road/Residential	11.5km	Medium/ High	Low	Moderate/ Low
9 (16)	Arreton Down 453910, 087209	9.8km	High	Low	Moderate

 Table 3.3 Visual Significance from Applicant's Viewpoints (amended)

#### Cheverton Down Wind Farm Landscape and Visual Impact Assessment Review

10 (15)	Carisbrooke Castle 448571 087693 Tourist viewpoint	5.4km	High	Medium	Moderate
11(3)	Wellow 438992 088145 Residential	6.1km	High	Low	Moderate
12 (7)	Tennyson's monument 432496 085333 Tourist viewpoint	11.4km	High	Low	Moderate
13	Pennington Marshes 432499 092369 Recreational walkers	14km	High	Low	Moderate
14 (6)	Lepe Country Park 445700, 098650 Recreational walkers	14.1km	High	Low	Moderate
15	Spinnaker Tower, Portsmouth 462939 099939	24.2km	High	Low/ Negligible	Moderate/ Low
16	St Boniface Down 457265, 078893	13.9km	High	Low/ Negligible	Moderate/ Low

3.8.7 A similar approach should be taken to the evaluation of all receptor types. We would be confident that similar results would be shown; in other words, the majority of visual effects will be significant. This concurs in the case of the site-specific assessment carried out by us using the Natural England capacity criteria, Table 3.1 above.

#### 3.9 Effects on the Visual Amenity of Sensitive Receptors

3.9.1 The LVIA does not list or evaluate all sensitive residential receptors. This is particularly remissible in the case of residential receptors and users of recreational open space, Rights of Way, bridleways, cycle ways, By-ways Open to All Traffic (BOAT's) and National Trust properties, for example. While we are quick to point this out we do not attempt to provide our own analysis because we have not visited the properties that might potentially be affected and therefore cannot provide ownverification that this would be the case.

#### 3.10 Mitigation Measures

- 3.10.1 Primary mitigation measures which include consideration of alternative layouts, minimising footprint of access tracks, and the location of the substation building have been considered and incorporated into the design.
- 3.10.2 As noted above there are limited opportunities for secondary mitigation (i.e., measures that off-set, reduce or remedy significant effects), owing to the large scale of the turbine development. The proposed development has attempted to integrate the turbines into the landscape by adjusting the location of the turbines to reduce visual impact close to the site. The success in doing so is however, questionable, as the developer has opted to strike a balance between elimination of these impacts and optimising siting of the turbines to optimise efficient use of wind potential as explained in ES Para 7.5.5, and as illustrated by applicant's figure 2720/00 in Appendix 7.4. While the result could have had a higher impact in visual and landscape terms, it could also have been lower.

#### 3.11 On-Site Mitigation

3.11.1 The ES states in Para 7.5.7:

'Mitigation measures in the form of landscape proposals are not proposed, except for locally appropriate native mixed planting around the substation building, to help it fit in to the surrounding landscape and strengthen its association with the nearby farm building group.'

- 3.11.2 The JCA Landscape Character Assessment contains some suggestions for management of the Isle of Wight landscape. This includes the improvement of hedgerows, planting of hedgerow trees, management of existing woodland (including improvement woodland edges) and planting of new woodlands.
- 3.11.3 The site was visited to seek opportunities for on-site enhancement. Some hedgerows are gapped or missing; it may be beneficial to re-plant these. There are few hedgerow trees on site and this presents an opportunity to plant new hedgerow trees.
- 3.11.4 Such measures would help to preserve and enhance the local agrarian character but quite apparently not contribute to concealment of the turbines themselves. For that reason we do not consider such measures as necessary or effective in respect to landscape or visual mitigation.
- 3.11.5 Appropriate building materials for the sub-station building would include local limestone or possibly hand thrown brick similar to those used on the nearby Cheverton Down Farm, with appropriately tiled roof, and possibly the inclusion a local limestone plinth, which is characteristic of local buildings. All materials would ideally be reclaimed if possible to match vernacular materials.

#### 3.12 Off-Site Mitigation

3.12.1 Off-site mitigation/enhancement opportunities could include tree planting on Cheverton Down Farm, adjacent to the site, which would help screen views of the turbines from the Brighstone and Limerstone, although the AONB would need to be consulted to confirm if such measures would be considered to be out of character. The highly exposed nature of the site, and thin chalk soil characteristic of the area, would suggest that large scale tree planting would be difficult to establish. The turbines would in any case be seen from further afield scaled against any trees planted close to them, which has the effect of accentuating the size of the turbine. The length of time for planting to reach an effective height would be greater than the proposed life of the turbine development, and thus is likely to be deemed of no value.

#### 3.13 Public Rights of Way

- 3.13.1 Our figure in Appendix A illustrates Public Rights of Way within the close range. As stated in the response to the Scoping Report, there are a number of Rights of Way that are not referred to by the ES that are within the site and study area. These include Footpath Brighstone BS 82 runs south west to north east to the Worsley Trail, bridleway Brighstone BS 32 runs north to south within the western perimeter, bridleway Brighstone BS 33 runs east to west along the southern perimeter, bridleway Brighstone BS 7/Shorwell SW 52 runs east to west across the northern section of the site, bridleway Shorwell SW 7 runs south east to north west in the south east corner and the Worsley Trail bridleway Brighstone BS 10/Shorwell SW 59/51 runs east to west in the southern part of the site.
- 3.13.2 Users of Open Access Land are not assessed by the LVIA.
- 3.13.3 The ES states that the effects on PRoW users will be substantial. The turbines are located close to a significant vantage point (the Limerstone Viewpoint) as denoted on 1:50,000 sale OS maps.
- 3.13.4 Natural England referred to a concern about Turbine 1 being 300m from a public bridleway. The Companion Guide to PPS22 states that the British Horse Society has suggested 200 metre exclusion zones around bridle paths to avoid wind turbines frightening horses, but that this is not a statutory requirement. Similarly, there is no statutory separation between a wind turbine and a public right of way, although 'topple distance 'is considered an acceptable separation. Turbine 1 is located over 200m from the bridleway. Several public footpaths were walked within the AONB to assess the potential effect of the proposals on the character and scenic quality of the area.
- 3.13.5 Technically the proposal adheres to guidance regarding proximity to the PRoW. The landscape and visual impacts from PRoW is not acceptable in our opinion.

#### 3.14 Cumulative Effects

3.14.1 The LVIA does not undertake a cumulative effect study. It is stated by the LVIA that this is because there are not other proposed wind turbine developments within the study area. This might not be the case if the full study area was to be extended to the 60km radius area recommended by the SNH guidelines.

#### 3.15 A Review of Compliance with Planning Guidance and Regulation

3.15.1 We have concerns regarding the compliance of the scheme to landscape-related planning guidance. PPS 7 states:

*`Planning authorities should continue to ensure that the quality and character of the wider countryside is protected and, where possible, enhanced. They should have particular regard to any areas that have* 

been statutorily designated for their landscape, wildlife or historic qualities where greater priority should be given to restraint of potentially damaging development'.

3.15.2 The adopted Regional Spatial Strategy for the South East Plan (the Regional Spatial Strategy for the South East) contains reference to landscape character in Policy Nrm15: Location of Renewable Energy Development, which states:

'Renewable energy development, particularly wind and biomass, should be located and designed to minimise adverse impacts on landscape, wildlife, heritage assets and amenity. Outside of urban areas, priority should be given to development in less sensitive parts of countryside and coast, including on previously developed land and in major transport areas.

The location and design of all renewable energy proposals should be informed by Landscape Character Assessment where available. Within areas of protected and sensitive landscapes including Areas of Outstanding Natural Beauty or the national parks, development should generally be of a small scale or community-based. Proposals within or close to the boundaries of designated areas should demonstrate that development will not undermine the objectives that underpin the purposes of designation.'

3.15.3 The South East Plan states in Para 9.97:

'However, wind and other renewable energy development should not be precluded in AONBs and the national parks as there will be locations where small scale construction e.g. a wind development of between one and four turbines not generating more than 5MW, can be accommodated where conflict with statutory landscape protection purposes set out in PPS7 can be avoided or minimised through careful siting and design, including reducing the cumulative impact of a number of individual schemes.'

3.15.4 The South East Plan goes on to state in Para 9.98:

'The application of Landscape Character Assessment, drawing on advice from Natural England, may help in identifying and developing guidance on location, scale and design of developments, particularly in areas of sensitive landscape.'

3.15.5 In regards to AONB's the South East Plan states in Policy C3: Areas of Outstanding Natural Beauty:

'High priority will be given to conservation and enhancement of natural beauty in the region's Areas of Outstanding Natural Beauty (AONBs) and planning decisions should have regard to their setting. Proposals for development should be considered in that context. Positive land management policies should be developed to sustain the areas' landscape quality. In drafting local development documents, local planning authorities should have regard to statutory AONB Management Plans. In considering proposals for development, the emphasis should be on small-scale proposals that are sustainably located and designed.'

- 3.15.6 In our opinion, the proposal does not meet with the requirements of the RSS as indicated by the above quotations.
- 3.15.7 A second concern is that an existing planning permission has been in place since 2003, for turbines of 52m height. Two proposed turbine locations are in the same location as those of the existing application. Turbine 3 is located in a new location, moved in accordance with iterative design considerations and concern acknowledged by the developer that the approved location of turbine no 1 could be moved in order to reduce visibility of the development locally from the villages of Brighstone, Limerstone and Shorwell.
- 3.15.8 The new design proposed turbines of 125m in height as opposed to the 52m height turbines in the existing permission.
- 3.15.9 It is apparent that the changes constitute a material alteration to the existing permission. The existing permission allows a proposal that may be in conflict with existing RSS and AONB planning policy. The Isle of White AONB made it clear both in their letter of objection and in a telephone conversation that were permission sought for the approved scheme now it would be judged more stringently and would be unlikely to be permitted under current policy. It is accepted that the permission is extant and cannot be rescinded. In our view the current application compounds the conflict with existing planning regulation and policy.

### 4 SUMMARY & CONCLUSIONS

#### 4.1 Effect on Character

4.1.1 Judging from the site visit and the assessment of landscape sensitivity, the Cheverton Down landscape is not suitable for accommodation of 3<sup>rd</sup> generation wind turbine development due to the scale of the landscape, its rolling and simple topography and skyline, and lack of similar structures that are visible from a distance.

#### 4.2 Effect on Isle of Wight AONB

4.2.1 The Landscape Character Assessment carried out by us demonstrates that the site has a high level of sensitivity and a low capacity to accommodate wind turbine development.

#### 4.3 Effect on other designated landscapes and buildings

- 4.3.1 The effect on the section of the Heritage Coast that is within close view of the turbines will have a moderate to moderate/high level of significance.
- 4.3.2 The effects on the New Forest and South Downs National Parks are low to negligible.
- 4.3.3 The effect on North Court registered garden and building and listed buildings of West Court and Wolverton Manor near Shorwell are high to high moderate.

#### 4.4 Visual Effect

4.4.1 From the re-evaluation of the applicant's viewpoints carried out by us, it is apparent that there is a higher level of visual sensitivity than the applicant's LVIA has assessed.

#### 4.5 Capacity Assessment

4.5.1 Not withstanding the apparent level of significance of the effects on both visibility and landscape character, it should be determined if the turbines produce a positive (beneficial) or negative (harmful) landscape and visual impact in this location. The LVIA does not answer this as it avoids the question of whether these turbines are an aesthetically positive or negative form of development.

In the Natural England's consultative document, "Assessing the Environmental Capacity for On-Shore Wind Energy Development - Consultation on Proposed Approach to Natural England Guidance", Natural England, 2009, on page 12 it states:

'Wind turbines tend to be sited in prominent and open locations to maximise energy generating potential. Their scale and form, consisting of a number of tall, vertical structures spaced over an extensive area, can lead to changes in the character of the landscape and introduce complex visual relationships between the turbines and their surroundings. The movement of the turbine blades attracts the eye, and turbines can be highly visible from a long distance. Such effects can influence people's enjoyment of the natural environment,
however it is important to note that public perceptions of turbine development range from characterising them as intrusive industrial development in open countryside to regarding their structural form as enhancing the visual experience.'

4.5.2 Natural England goes on to comment:

The landscape criteria will also identify areas of low capacity, where wind energy development is likely to cause unacceptable harm to landscape character. The landscape criteria will also, however, allow for an assessment of potential high capacity, i.e. they will be able to identify areas where wind energy can be accommodated from a landscape perspective.

- 4.5.3 In our view, the impacts of turbine developments are subject to the evaluation of site-specific circumstances of the landscape, and assessments based on generic landscape classifications (at regional or even district levels) tend to lead to conclusions that may not be appropriate for the particular site in question. The Natural England approach provides an easily accessible tool for providing site-specific landscape capacity assessment on a comparative basis.
- 4.5.4 Our view is that the Natural England approach demonstrates that the site does not have capacity to accommodate an increase in size of the wind turbines.

## 4.6 Conclusions

- 4.6.1 The applicant's LVIA is a thorough document. It has broadly approached LVIA according to the methodology recommended by best practice. However, there are a number of deficiencies in the methodology and application of that methodology that produce a conclusion that can not be supported by our own examination of the desk-top and field assessment data, and our understanding of methodology when applied.
- 4.6.2 The result is to cause areas of significant contention in its findings and cast doubt on the weight that can be placed on it as a balanced and fair assessment of the predicted residual landscape and visual effects of the proposal.
- 4.6.3 These deficiencies can be addressed, but it is highly probable that as a result they will demonstrate similar conclusions in regard to the appropriateness of the proposed development as our own.
- 4.6.4 Our view is that the proposed development does not meet the necessary minimum thresholds of sensitivity of effects for landscape and visual impacts.
- 4.6.5 The landscape of the site, both in close proximity and at a distance of up to 12km, does not have capacity for wind turbine development, and thus the proposal constitutes a *significant adverse impact*. By our own assessment and comparison to the applicant's ES, we consider that additional wind turbine development would be deemed negative (harmful) to the landscape character and visual amenity of the site and its surroundings.
- 4.6.6 In addition, the development is located within the boundary of the Isle of White AONB. The Isle of Wight AONB is a unique national asset. Whether or not the AONB's designation is 'deserved' is not in question. The need to actively protect the landscape value of the area in accordance with its statutory purpose should

be a material consideration of any decision in regard to the development. The proposed development would contravene this statutory purpose.

- 4.6.7 There is no viable means of mitigating the landscape and visual effects or adverse impact that would be caused by proposal as it is.
- 4.7 Recommendations
- 4.7.1 For the above reasons we recommend that the proposal should be refused planning consent.

## **Glossary of Abbreviations and Common Terms**

- **AONB**; Area of Outstanding Natural Beauty.
- **BOAT:** By-way Open to All Traffic.
- **CCN**: related topic papers posted on-line via the Countryside Character Network.
- **CROW:** Countryside and Rights of Way Act, 2000.
- **CSNH:** Guidance Cumulative Effect of Wind Farms, Scottish Natural Heritage, 2003.
- **Cumulative Effects:** As defined by the GLVIA, landscape and visual effects result from consequential changes to landscape or visual amenity in conjunction with other existing or proposed developments, positive or negative, that may also arise due to intervisiblity with other developments and combined effects. Separately these effects "*may not be significant but together they may create and unacceptable degree of adverse effect on visual receptor*". (*GLVIA*, 7.13)
- Direct and Indirect Effects: As defined by the GLVIA, a direct or primary effect results from a change that is "a direct result to a defined element or characteristic of the proposed development". (GLVIA 7.7). An indirect or secondary effect is not a direct result of the development, "but may arise from consequential changes in the landscape or visual amenity" (GLVIA 7.8). As such it may be similar to a cumulative effect, particularly in conjunction with a different form of type of development.
- **GLVIA:** Guidance for Landscape and Visual Impact Assessment, 2nd Edition, the Landscape Institute with the Institute of Environmental Management and Assessment 2002.
- **IWC:** Isle of Wight Council
- Landscape Capacity: The threshold at which change to the landscape characteristics and visual resource result in unacceptable adverse effects on its character or valued characteristics. This is derived from the interaction of landscape sensitivity and landscape value and is specific to the type of change or development.
- LCT: Landscape Character Type. A record resulting from a generic assessment by trained professional analysts that distinguishes broad areas of similar landscape into agreed categories, examples of which are reproduced in the Appendices of this document.

- Landscape Characteristics: Combinations of unique elements and features (e.g. expansive openness, enclosure and wildness) that are definable and used in assessing a Landscape Character Type.
- Landscape Element: A component part of the landscape such as roads, hedges, or ancient woodland).
- Landscape Feature: A prominent eye-catching element (e.g. wooded hilltop or limestone pavement outcrops).
- Landscape Quality: Strength of expression of landscape character and condition (intactness) of characteristic visual and landscape elements (not the same as scenic beauty see below).
- Landscape Rarity: How frequently a Landscape Type is found within a given area, denoted as a percentage of the overall territory in question.
- Landscape Sensitivity: The sum of a range of assessment criteria that are deemed to indicate how vulnerable a landscape may be to changes brought about by development. The criteria include: scale and enclosure; complexity and order; manmade influences; skyline type and quality; connections to adjacent landscape types; remoteness and tranquillity; visual interruptions or discord; views from key location and settlements.
- Landscape Value: The sum of various characteristics that give a fixed value to a landscape, including statutory Designations (National Park and AONB status), mapped tranquillity, wildness, cultural designations, beauty etc.), combined with a perceived value to people for personal reasons.
- Landscape: An area of land the character of which is the sum of interactions between many components, not just what is physical or visible. Physical objects such as landform, built environment, plants, and water bodies (landscape) and the perception of them (scenery and views) form the most tangible element. Cultural, human and natural history, and ecological structure also contribute to the unique appearance of a landscape, as well as influencing understanding and perception of it. Location of the view of a landscape and what a person is doing at a given time has a specific influence on how a person understands and values a landscape.
- LCA: Landscape Character Assessment Guidance for England and Scotland, Countryside Agency/SNH 2002.
- **Magnitude of Change:** a relative scale of effect, based on the quantifiable degree of change to a landscape resource, the nature of the effect, and its duration; whether it is permanent or temporary, and if it is reversible.

- **PRoW:** Public Right of Way.
- **RSS:** Regional Spatial Strategy
- **Significant Impact:** A landscape or visual impact that may be a 'material consideration' (i.e. a matter that should be taken into account in deciding a planning application) because the effect's context and intensity are directly linked to criteria and terminology defined by the Cumbria Wind Energy CWESPD and the assessment process.
- **SNH:** Scottish Natural Heritage Visual Assessment of Windfarms: Best Practice University of Newcastle 2002, Scottish Natural Heritage commissioned report.
- **SEP:** South East Plan (Regional Spatial Plan for the South East of England)
- **Tranquillity:** The personal experience from being at a location that provides individuals with the space and conditions to relax, achieve mental balance and a sense of distance from stress. Tranquil areas are often associated with quiet, remote (or appearing remote), natural, non-developed (non-built) and non-busy areas.
- **Visual Amenity:** The subjective value attributed to the degree of pleasure gained from what is seen in a given view (quality of view).
- **Visual Receptor:** A type of viewer: receptors vary according to activity being undertaken at any particular time. Views from a specific type of route, such as a Public Footpath, residential dwelling or place of work, will have different

# Appendices

# 5 Appendix A – Drawings





































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Least tranquil











# 6 Appendix B – JCA Landscape Typology Sheets

# Isle of Wight



Character Area

#### Key Characteristics

- A small-scale island landscape with an often intimate feel and an overwhelming sense of discovery. There is a juxtaposition of varied and distinctive landforms, diverse land cover types and often sudden and dramatic views of the sea. The close relationship of the area to the sea is a vital ingredient of the island's cultural heritage from prehistoric times.
- The island exhibits, at a small-scale, the key characteristics of many southern English landscape character areas: from intensively farmed arable coastal plain to wooded dairy pasture; from steep Chalk downs to diverse estuarine seascapes and dramatic sea cliffs and stacks.
- The southern coastal plain constitutes an open, intensively managed, arable farmland with large open fields, few trees, and relict hedges. The open character and maritime influence give an exposed windblown feel.
- The Chalk downs are characterised by open rolling arable lands with remnant unimproved grassland on the steeper and usually higher areas. There are few hedgerows or trees here but beech and ash woodland and coppice are supported on the northern slopes of the open downs and some coniferous plantations on the southern slopes. Some remnant heathland/acidic pasture exists in a vale on a band of Greensand between the two ranges of Chalk downs.
- The character of the northern pastures is determined by dairy farming which has created the predominantly lush, green, irregular fields bounded by mature hedgerows. Woodland, much of it coppiced, is a common feature and the occasional orchard adds variety. On the north coast the numerous harbours, creeks, salt marshes and tidal mudflats are fringed by woodland. Formal estates, defined by exotic evergreen planting, dominate parts of the coast whilst Victorian urban seaside settlements are concentrated on others.

- Local limestone and sandstones are the main traditional building materials although differing geologies have determined variations. These stone buildings have dominated the older 'church and manor' settlements which are scattered across the landscape. Local brick buildings are common and indicate a strong Victorian influence within the towns.
- The Undercliff and the coastal chines are particularly unusual and distinctive landscape features.



Dramatic coastal views across Freshwater Bay and Compton Cliffs, showing the valued coastal grasslands.

#### Landscape Character

The Isle of Wight is a diverse island landscape exhibiting at a small-scale the key characteristics of many southern English landscape character areas. It is separated from the South Coast Plain and New Forest character areas by the Solent; its insularity, providing a characteristic maritime quality. The dominance of the sea and sky in many views gives unity to the varied landscape features that make up this small land area.

Chalk downland provides an impressive and hilly backcloth for the open rolling countryside of the southern coastal



farmlands. The central spine of Chalk supports open, windswept downland rising above sandstone hills and ridges. This provides a sense of enclosure to the southern half of the island – the scrub and yellow gorse of the sandstone hills and low gravel ridges adding interest and variety to the scenes. The varied topography strongly influences the views, many of which are restricted, particularly so north of the Chalk spine where the mosaic of small pasture fields, woodland and dense hedges, with mature oak hedgerow trees, provides a distinct sense of enclosure.

In contrast, the coastal plain to the south offers sweeping views across the low and intensively farmed arable

landscape of large, regular, open fields. These are bounded by a sparse, scrubby network of hedges with sporadic windprofiled trees. This open windswept landscape is broken by three short, south-flowing rivers, their valleys marked by associated wetlands and reedbeds. These rivers are often fringed by low willow scrub bounding the unimproved pasture and relic drainage channels. Where these meet the sea on the southern coast, steep coastal valleys or 'chines' occur. The 'chines' are often well-wooded in contrast to the almost treeless nature of the surrounding arable farmlands. Creeks and inlets marking ancient drowned valleys dot much of the northern coastline, providing many tranquil landscapes of great antiquity.



#### **Physical Influences**

The geology of the Isle of Wight mirrors that of the Hampshire Basin across the Solent. The northern claylands of the island have a strong geological similarity to the New Forest and, indeed, the island was connected to this region before rising sea levels created the Western Solent.

A central Chalk ridge of steeply inclined strata divides the island on an east-west axis. This spine reaches a maximum height of 214 m AOD at Brightstone Down, an area of deeply dissected dry valleys with generally thin and infertile soils. At Tennyson Down, the advancing sea has carved the ridge into the precipitous cliffs and distinctive stacks known as the Needles. The southern Chalk downs are higher, reaching 240 m AOD at St Boniface Down which, being capped with Plateau Gravel, supports a rare example of relict heathland.

The northern half of the Isle of Wight is characterised by low-lying Tertiary clays overlain in places by gravel capped ridges. In some areas, coastal erosion has caused slumping resulting in heathland dominated cliff edges and gorse or wooded slopes giving way to sections of bare, unstable clay.

To the south of the central Chalk scarp, ridges of the Upper Greensand overlie Gault, the Lower Greensand and the Wealden Beds whose clay gives rise to a dissected plain. Short, south flowing streams arise from the foot of the Chalk scarp and cross the plain to the south-west coast where they have cut deep ravines or 'chines' in the soft Wealden and Lower Greensand beds of the unstable cliff-line.

The Undercliff of the southern coast of the Isle of Wight is the largest area of rotational landslip in Western Europe. Here, Greensand and chert topped cliffs, tower above a series of terraces running down to low coastal cliffs; a particularly British landscape comparable with Lyme Regis and Folkestone Warren.

The island's main rivers – the Medina and Eastern Yar – rise near the southern coast and flow northwards to the Solent through deep gaps in the central Chalk ridge. In each case the downstream section has been submerged by post-glacial sea level rise to form a drowned river valley or *ria*.

#### Historical and Cultural Influences

After the close of the last Ice Age, 10,000 years ago, the sub tundra landscape of the Isle of Wight gave way to birch, pine and hazel scrub. An improved climate led in turn to much of the island becoming covered in deciduous forest. Evidence suggests that woodland clearance was begun sometime after 4,000 BC by New Stone Age communities. Clearance had become greatly accelerated by the Bronze and Iron Ages (c1000 BC to 43 AD). The lighter soils of the Chalk and Greensand along the coast, plus the freely draining gravel caps in the north of the island, attracted many early settlements. As the population expanded, large areas of woodland were cleared for agriculture. Prehistoric clearance on the downs created pastoral grassland whilst clearance and over-farming on the sands and gravels commonly created heathland.



The influence of generations of holiday makers cannot be escaped on the island – here the impact of a caravan site on the coast.

In post-Roman times, the oak woods of the north of the island came to be managed for timber through a need for coppiced poles, fencing and firewood. By the Middle Ages, the island had become a mixed agricultural landscape; a mosaic of woodland, pasture, meadows and arable fields with sheep and farmed rabbits grazing the open pasture of the Downs. By Tudor times, seven deer parks had been created, including the King's Park of Watchingwell (considered to be one of England's oldest deer parks). During and following the Tudor period, land was enclosed by Parliamentary Enclosure Acts. In the 19th century, many fields were enlarged and hedgerows straightened as improvements in drainage allowed heavier soils to be worked. More recently in the 20th century the agricultural pattern was further diversified as market gardening and pig-rearing played significant role in the а agricultural economy.

Tourism has been important to the island's economy since the mid 19th century; its success has relied on the special visual qualities of the landscape. The development of the railways enlivened interest and was directly responsible for the growth of 'new' towns such as Ryde, Sandown, Shanklin and Ventnor. The decision by Victoria and Albert to live at Osborne promoted further Victorian development. The array of Victorian villas and gardens, particularly along the Undercliff and at Ryde, are evidence of this enthusiasm.

#### Buildings and Settlement

The island's patterns of settlement and varied styles of building are as varied as its landscapes. Small, intimate

villages are connected by narrow, winding lanes. Greensand is the most common building material and it characterises the villages which are to be found at the base of the Chalk downs. Many of the settlements tend to be small and linear, developed originally as cottages along streets. The southern half of the island is less intensively developed than many other areas. The exception to this is the Undercliff, an area on the southern coast where a mild microclimate, fine views and secretive landscape made it a popular place to live during Victorian times. There are many grand Victorian houses and grounds with a scatter of exotic plants.

The traditional use of local materials has had a significant influence in enhancing the appearance of the built environment. The stone-built villages, constructed from locally quarried sandstone and limestone, commonly use tiles as a traditional roofing material. A few ancient buildings are roofed with a combination of limestone slabs and tile upper courses. Elsewhere, brick is the principal building material. Important buildings within the landscape include Carisbrooke Castle, Osborne House and an array of medieval churches.



The Victorian influence is evident throughout the island particularly here at the Osborne Estate.

#### Land Cover

The Isle of Wight - the Garden Isle - is characterised by mixed agricultural use. Farmland forms a patchwork of small enclosed fields and copses on the northern clays. On the Wealden and Lower Greensand Beds arable farming is intense. The central Chalk ridge and the high Chalk southern downs support some stretches of sheep-grazed downland.

Permanent grassland with established hedgerows still dominates the heavy clay soils of the northern Wight. Here there are numerous small woodland blocks and a few large plantations such as the extensive Parkhurst Forest. Relict wood-pasture of ancient origin is also a notable feature of this area.



A view of the island from the distinctive 'Needles' illustrating the dominance of chalk and the maritime influence.

The more varied geology of the fertile southern lowland part of the island supports a patchwork of large open fields often distinguished by their reddish brown soils. The land use gradually shifts from mainly pastoral in the east to an intensive arable regime with very large open fields in the west. The Chalk downs support a variety of land uses including chalk grassland pasture, open intensive arable production, ancient hanger woodlands, scrub and commercial forestry. Where the Chalk or Greensand is capped by gravels, heathland type communities (gorse, bracken and heather) thrive. True heathland, however, is scarce on the island and is largely concentrated at Golden Hill and Headon Warren.

The coastline supports a mixture of intertidal mud-flats and marshes, ancient woodland, chalk turf and coastal heath. Grazing marshes and reedbeds stand in stark contrast to high, vertical cliffs, and stacks that dominate the coastline.

Horticulture - largely concentrated in East Wight - plays a major role in the island's economy with fields of vegetables, bulbs and flowers interspersed by a small number of orchards.

Mineral extraction on the island includes chalk for agricultural lime and for construction fill, gravel and building sands.

#### The Changing Countryside

- Loss of trees, unimproved grassland and historic hedgerows due to agricultural intensification.
- Increase in tourism-related developments, particularly on the coast and visual impact of semi-derelict caravan parks in other areas.
- Loss of chalk downland due to intensive arable production, afforestation and to scrub growth.
- Loss of unimproved meadows.

- Decline in area of heathland and damage to wetland landscapes (marsh, bog and wet meadows) from agricultural and drainage improvements.
- Demand for new structures such as television masts and wind farms on elevated sites.
- Significant visual impact of chalk extraction on high land and exposed slopes, plus resulting damage to ancient chalk grassland or archaeological sites.
- Demand for landfill sites for waste disposal outstripping supply of suitable, exhausted, mineral working sites.
- Degraded historic parks and gardens.
- Erosion of settlement character due to use of new building materials and styles.
- Coastal erosion affecting chines, coastal habitats and archaeological sites.
- Ploughing and denudation of ancient monuments.

#### Shaping the Future

- There are opportunities for the restoration and recreation of chalk downland pasture via reinstatement of traditional grazing regimes and reduction in ploughing or application of herbicides and fertilizers.
- The management of riverside features and adjoining land, including re-establishment of wetlands and traditional grazing and hay-cutting regimes, is important.
- The reversion of arable land to grazing plus restoration of characteristic coastal vegetation around the island's coast should be considered.
- The conservation of significant parks and gardens should be addressed.
- The identification of threatened ancient monuments and appropriate action would help protect and conserve archaeological sites in their setting.
- The conservation and management of existing woodlands and identification of new areas for planting should be considered.
- Integrated coastal zone management is important.

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Settlements such as Ventnor saw development as coastal resorts in Victorian times, the mainland seen in the background shows its proximity.

#### Glossary

AOD: Above Ordnance Datum

chert: hard dense rock of amorphous silica

chines: fissures or cracks

hanger: a wood on the side of a steep hill

## 7 Appendix C – Isle of White AONB Landscape Character Sheets

# 17 | Appendix C Landscape Character Types of the Isle of Wight AONB

## LCT1 <u>Cha</u>lk Downs



An open landscape with long vistas, distinct skylines, large fields, sparse hedge or field boundaries, few mature hedgerow trees and a sense of space and exposure. This landscape character type is the most dominant within the Isle of Wight AONB. It is also the landscape type best known by the public because of the dramatic white cliffs at either end of the east-west central ridge, including the Needles Chalk stacks. There is another large area of chalk on the southern downs around Ventnor. Landmarks and seamarks such as St Catherine's Oratory and the Tennyson Memorial occur on high vistas.

The geology of this area was laid down on a seabed during the Late Cretaceous period from 98 to 65 million years ago. It was subsequently folded and eroded to give the landform, angular flint deposits and soil base that we see today.

Chalk grassland has a very rich ecology and holds a number of important habitats for rare plants and animals. This is reflected in the Priority Habitat status for lowland calcareous grassland and within the Biodiversity Action Plan. The habitats within this landscape character type continue to be under threat from intensive farming techniques, inappropriate grazing, recreation pressures and scrub invasion. Management of this important habitat is heavily dependant upon a correct grazing regime, which is in itself linked to the economic conditions of farming for graziers.

Ancient semi-natural woodlands on northern slopes, with distinctive woodland wildlife, are an important feature of the area. A number of Sites of Special Scientific Interest (SSSI) and a candidate Special Area of Conservation (cSAC) fall within this landscape character area, representing the important nature conservation value of chalk downs. Small pockets of chalk heath occur on flint gravel deposits.

Rich in archaeology, with many scheduled and non-scheduled sites and monuments, this landscape has a strong time depth. Neolithic farmers started woodland clearance. Situated on cleared chalk downland, the Afton Down Longbarrow and Tennyson Down Mortuary Enclosure are burial monuments from this time. More extensive woodland clearance on the chalk took place in the succeeding Bronze Age. Many Bronze Age round barrows are situated on the central chalk ridge and the southern chalk downs. Roman villas are situated in close proximity to the central chalk ridge and major Anglo-Saxon cemeteries have been recorded from this area. Manors and farms originating in medieval times cluster around the edge of the downs. Although traditionally grazed, with areas of common land, archaeological remains such as lynchets and ridge and furrow indicate that some chalk grassland has been ploughed in prehistory, Roman times or the Middle Ages. In the 20th century old chalk grassland was ploughed up for use as arable or reseeded as improved pasture.

.ooking East from Tennyson Down © Natural England - Photographer Joe Low



Historic removal of chalk for liming of heavy clay soils and for building materials has resulted in a number of disused quarries. These are now regenerating naturally and have become a rich nature conservation resource. Place names often refer back to this former use such as Lime Kiln Shute, at Mersley.

Settlement is mainly linear in nature. It is found at the base of the chalk downs in valleys and combes where shelter and water is available from the chalk aquifer through natural springs. Place names often reflect these landscape elements (Shalcombe). Access via footpaths, bridleways and track ways along the ridge have left a strong pattern on the landscape. The modern Tennyson Trail follows part of the route of a trackway, of possible prehistoric origin, which ran along the central ridge from Freshwater Bay to Brading.

Evolving throughout history these routes are echoes of the movement of animals, a route to high ground for ceremonial purposes or as a vantage point, and as passage on horse back, horse drawn cart or carriage across the chalk ridge when lower routes were wet and impassable. Traditional build uses local hard chalk, flint and a common scale and design. Slate or thatch roofs (some tile), small windows and large walls and roofs of a simple style are typical.

High areas have been used throughout history as look out points for defence and the safety of seafarers. St Catherine's Oratory, The Needles Battery and other smaller installations, and beacon sites were used as an early warning against invaders. Few Iron Age hillforts exist, one on Chillerton Down, together with a recently discovered defended site just north of Bembridge Down. The earliest defences at Carisbrooke Castle date from the Anglo-Saxon period, if not earlier, and the medieval castle, with its chalk cut moats, dominates the surrounding landscape.

On the southern downs, St Catherine's Oratory provided a rather ineffectual lighthouse for medieval mariners and a chain of medieval beacons on the chalk warned of possible invaders. Victorian and later defensive sites on the chalk include the Old and New Needles Batteries at the western end of the Island and Bembridge Fort at the eastern end. History was made at the New Needles site when it was used for testing the Black Knight rocket in the 1950s and 1960s. On the southern downs, Ventnor Radar Station played a vital defensive role in the Second World War.

# **Key Characteristics**

Open and exposed with sparse hedgerows and no mature hedgerow trees.

Limited windswept and scrubby vegetation on higher downs.

Traditional grazing with extensive arable cultivation.

Broadleaved woodlands predominantly beech and ash on the lower downs.

Dominant high chalk cliffs.

## Management Aim

To retain the generally open nature and long views to and from the downs and to conserve and enhance their ecological and historic importance.

# LCT2 Traditional Enclosed Pasture



This landscape character type occurs most frequently on heavier soil or in wet areas where arable cultivation has remained unviable. Most of this landscape character type is found north of the central and southern chalk downs because of the geology of the Island.

To the north of the central chalk ridge is a landscape of lush green pastures with large hedges, small copses and woodlands that may be characterised as 'ancient' countryside. This landscape includes areas such as the pasturelands around the Newtown estuary, Farringford, Calbourne, Combley, Quarr, Nunwell and south east of Osborne.

Field shapes tend to be irregular, reflecting subtle changes in local topography, with some more regular hedgerows reflecting later enclosure. There are many mature oak trees within pasture fields and as hedge trees, giving a sense of permanence to this landscape.

Country lanes, footpaths and bridleways are winding in nature and enclosed by hedges. Some arable cultivation takes place where modern farming equipment has made this possible. Some traditional pasture has been made more intensive to produce silage. **Fraditional Enclosed Pasture** Joel Natural England - Photographer



The chalk valley pastures of the Bowcombe Valley have a different character. Grazed by sheep, they have a more open aspect and views to the surrounding chalk downs.

Other areas of this landscape character type are clustered around the foot of the southern chalk downs on the Lower Greensand or on the Upper Greensand slopes that form a part of this downland. Areas of note include Sainham, Appuldurcombe, Wydcombe and Gotten.

Copses and woodland in this landscape character type are semi-natural and some may benefit from active coppicing and management to retain their integrity.

Villages south west of the central chalk ridge are either of an open linear pattern or comprise small clusters of historic settlement, usually associated with farms. To the north of the central chalk ridge the settlement pattern is more dispersed. The main traditional building material in the northern part of this area is Bembridge Limestone, with the softer Greensand employed in the southern part.

The historic landscape to the north of the central chalk ridge includes areas such as the failed medieval borough of Newtown and the landscape parks of Westover and Nunwell.

On the Greensand is situated the remains of the Island's largest Georgian landscape park at Appuldurcombe. The landscape parks of Westover, Nunwell and Appuldurcombe are all on the English Heritage Register of Historic Parks and Gardens.

Reliant on small farms, livestock rearing and woodland management, this landscape is most at threat from changes to the agricultural sector that result from economic pressures.

# **Key Characteristics**

Land mainly used for pasture.

Well preserved and dense hedgerows with mature hedgerow oak trees in the northern part of the area

Irregular small fields.

Narrow enclosed winding lanes.

Well wooded, with numerous copses.

Small scattered farmsteads.

Settlement patterns mostly linear in nature or small clusters.

## Management Aim

To ensure the retention of a viable, well farmed landscape as a buffer for urban areas and woodlands, characterised by a mosaic of permanent pasture, well managed hedgerows and copses.



Natural England - Photographer Joe Lov



# LCT3 Intensive Agricultural Land



This landscape character type is found in a number of areas within the AONB. The first and most significant is the large, flat lower Greensand arable plain stretching from the south west of Rookley to the Tennyson Heritage Coast between Barnes High and Walpan Chine. A second sizeable area lies to the south of Arreton Down and stretches eastwards to Alverstone. Both of these areas are sub categorised as Intensive Arable Land.

A third area is to the north of the chalk downs at Chessell and running west to Afton along with two areas both sides of the Western Yar Estuary. This area is sub categorised as Central Agricultural Belt. Finally, two small areas occur at Southford near Stenbury Manor, and in the Whitcombe Valley south of Newport.

The land in the Central Agricultural Belt involves farming on heavier soils, with greater prevalence of dairy farming and winter cereal crop production. Farming units tend to be large and associated with evergreen shelter belts. Hedgerows are scarce and, where present, often degraded.

The land in the Intensive Arable Lands exists on the Lower Greensand hills and Greensand plains, the most productive arable land on the Island. This part of the AONB has seen dramatic change due to Dutch Elm Disease. This has resulted in the loss of a former key feature of this landscape and the intensification of agriculture practices since the middle of the last century. The outcome is an open and sparsely populated landscape, with broad sweeping views, where the coastal climate has a strong influence.

This landscape changes with the seasons; the gold and brown of autumn and winter give way to the greens of spring, and the greens, yellows and blues of summer. In this part of the AONB the dynamics of the landscape are most apparent, with the use of farm machinery to turn the soil, irrigation of crops with large water canon, the use of polythene for early potato and maize production and the movement of ears of cereal crops emulating the waves along the Heritage Coast. Although a long tradition of arable agriculture has removed whatever archaeological earthworks may have formerly existed in this landscape, the light and easily worked soils of the Lower Greensand were attractive to farmers from prehistoric times onwards.

# **Key Characteristics**

Large, open fields.

Large-scale hedge removal and degraded remaining hedges.

No hedgerow trees.

Land use is predominantly rural.

Large farms and farm buildings.

Trees restricted to shelter belts.

## Management Aim

To recognise and retain the open nature of this well farmed zone, but to increase its visual and ecological interest by encouraging hedgerow and watercourse management.

# LCT4 Southern Coastal Farmland



This landscape character type largely occurs in one area between Shippards Chine and Barnes High and inland to the villages of Brighstone and Shorwell, with a further small area at Yaverland on the east coast. It has an open and exposed feel, with a gently undulating landform.

The influence of the sea can be seen by the few mature trees, which have been bent over by the salt laden winds, and the dramatic cliff falls along the seaward edge of fields. Travelling westwards along the Military Road, there is a gradual change from arable to pastoral land use. Most fields have a regular shape, with low hedges and few trees. The existence of Chines along the coastline adds drama to an otherwise largely gentle landscape.

The continuing coastal erosion process often exposes fossil remains in the soft geology of the cliffs. Archaeological finds are also frequently uncovered by coastal erosion in this area and along the whole of the AONB coastline. The Chines and eroding cliffs provide important habitats for rare species such as the Glanville fritillary butterfly. Willow scrub occurs in areas of wet pasture and adjacent to drainage channels such as at Sud Moor.

Ancient tracks and paths have created a dense network of public rights of way running from settlements to the coast and Chines. Settlement tends to exist in the form of small hamlets associated with formal communal grazing areas now known as greens (Marsh Green and Brook Green).

# **Key Characteristics**

Large regular gently undulating fields.

Low hedgerows with few hedgerow trees.

A transition from arable in the east to pastoral in the west.

Valleys, old drainage channels and Chines cross the arable landscape and are associated with willow scrub and unimproved pasture.

Eroding coastline of key geological and archaeological interest.

## Management Aim

Seek to diversify habitats while maintaining the dominant mixed agricultural use. To allow natural coastal processes to occur unhindered.

# LCT5 Sandstone Hills and Gravel Ridges



This landscape character type appears primarily in small land parcels south of the central chalk ridge. The largest area is to the west of Arreton at St Georges Down, with further small ridges in the area of Knighton, Southdown at Pyle near Chale, south of Chillerton and in a long band west of Shorwell to Brook.

The high Greensand hills (Sandstone Hills), in general support pasture except on steeper slopes. These slopes are often planted with mixed forestry and occur immediately to the south of the central chalk ridge.

From prehistoric times until the twentieth century there was some heathland in this area, as at Mottistone Common. The Neolithic 'Longstone', a burial mound with a stone marking the former entrance, is situated here. Conifers were planted on Mottistone Common before the Second World War. However, much of the forestry plantation has now been cleared and heathland is being re-established.

Gravel ridges and terraces are often wooded or support gorse and bracken communities. Occurring as high ground in the south of the Island, they are in stark contrast to adjacent flat and fertile agricultural land.

Sunken lanes or shutes are a feature of this landscape, often on the slopes facing on to the chalk downs. These historic track ways support ancient woodland flora and give an intimate and secretive ambience.

Settlement, where present, tends to nestle in the steep sided valleys that offer shelter and access to the natural springs that filter through from the chalk aquifer.

The geological resource of this landscape character type has led to pressure for quarrying for sand and gravel extraction. This needs to be managed carefully as it can have a major impact on the visual quality of the landscape.

# **Key Characteristics**

Some traditional pasture, steep slopes planted to mixed forestry.

Lower gravel terraces support gorse and bracken.

Sunken lanes support ancient woodland flora.

Traditional sheltered settlement in the valleys.

## **Management Aims**

To encourage sympathetic management to ensure that the very visible, often steeply sloped areas, rich in flora are retained.

Where practical, restore former heathland and encourage management of areas that are neglected at present.

To consider carefully the visual impact of any proposals to extend quarrying activity.

To retain the character of the rural road and rights of way network.

# LCT6 Northern Woodland



Occurring on the heavier soils in the north of the Island where agricultural use has been unviable, these large areas of plantation and mixed woodland are a dominant feature in the landscape. Bouldnor, Combley and Firestone Copse are managed by Forest Enterprise, with smaller areas of copse and other ancient woodland in private ownership.

In medieval times much of the Island's woodland was concentrated to the north of the central chalk ridge. Most of the Island's non-plantation woodland is still in this area. Combley Great Wood was owned and managed by Quarr Abbey in medieval times and is partly surrounded by a historic enclosure bank.

Some woodland has public access provision and is an important amenity for leisure pursuits for the local community. Active woodland management, including clearance and coppicing, is required to secure the integrity of this landscape character area.

# **Key Characteristics**

Large woodland blocks of conifers and broadleaved species form a dominant feature in the landscape.

Small enclosed fields.

## Management Aim

To retain, conserve and where possible extend woodlands and maintain the broadleaved woodland characteristics of much of the north of the Island. Conservation will require improved woodland management and public access.

To seek to develop the skills and markets for woodland products that would benefit woodland management and public access.

# LCT7 Landscape Improvement Zone



This landscape character type describes parts of the AONB that have changed as a result of sporadic and urbanising development over time. Usually found at the edge of larger development, these areas blur the boundary between urban and rural. They include areas of former agricultural land that have been changed by the addition of horse paddocks and stabling; intensive horticulture; poultry and pig farming; waste disposal sites; extensive residential, industrial or retail development; holiday camps, mobile homes, caravan and campsites.

This results in an increasingly chaotic character, with a decline in the quality of management of hedgerows, woodland and agricultural landscapes.

Areas included in this landscape type are Lower Woodside Wootton, Cranmore, Pilgrims Park Thorness, Forelands, Wilmingham, Afton, Rookley, and Alverstone.

Mitigation and enhancement measures should be sought whenever there is a proposal for development in these areas. These areas are also likely to be subject to increasing development pressures. The formulation of design or supplementary planning guidance on issues of concern may help to guide change that will restore the landscape and enhance the AONB.

Early review using the new landscape character assessment guidance will help to identify ways to enhance these areas.

# **Key Characteristics**

Traditional agricultural landscape changed and often degraded by urbanising development.

Overall visual chaos and neglect of agricultural landscape in a town edge setting.

Degraded hedgerows and unmanaged woodland.

General feeling of neglect and blur in the setting and edge of settlements.

## Management Aim

To prevent the expansion of urban influence, to retain and interpret sites of ecological interest and to seek landscape improvements by focusing resources into this landscape

# LCT8 Harbours and Creeks



This landscape character type covers those estuarine environments on the Island that are within the AONB boundary, namely Wootton Creek, Kings Quay, Newtown, and the Western Yar. All have common features such as mudflats, shingle, salt marsh, reed beds, an open aspect, and fringing oak woodlands. However, each has its own distinct form and features.

Of these, the Western Yar is the largest and is subject to a number of pressures. As one of the ferry terminals linking the Island with the mainland, the Yar is a busy harbour. It is also valued as a place for quiet leisure activities, such a cycling, walking and sailing. Of high importance for nature conservation, it supports a number of important plant species (Norton Spit) and is a resource for over wintering migratory birds. Designated as an SSSI, the area needs careful and considered management. The Western Yar Estuary Management Plan seeks to fulfil this function.

Newtown estuary has great historic, cultural and nature conservation value. The only National Nature Reserve on the Isle of Wight, it is primarily within the ownership and protection of the National Trust. It has a timeless, tranquil and secluded atmosphere, with a quality of light similar to the flat lands of East Anglia. Along with Kings Quay these two parts of this landscape character type represent the finest unaltered inlets on the Island.

At Wootton Creek, the upper part of the estuary south of Wootton Bridge is within the boundary of the AONB. It is quiet, rural and surrounded by oak woodlands.

From prehistoric times these harbours and creeks have been important for trade and transport. It is no coincidence that the Island's medieval towns are all set beside harbours and creeks, even though Yarmouth struggled and Newtown failed to become viable. In and around Wootton Creek and along the coastline from Wootton to Ryde a major archaeological project has found evidence of trade and subsistence activities dating back to Neolithic times. The Wootton-Quarr Project demonstrated the wealth of fragile remains that exist along this stretch of coastline, and that are under threat from erosion. The project also highlighted the enormous potential to increase our understanding of the past environment and landscape change. Other parts of the AONB coastline may prove to have equal potential.

# **Key Characteristics**

Flat exposed tidal mudflats, shingle banks and grazing marshes.

Open aspect.

Peripheral; enclosure created by surrounding oak woodlands.

## Management Aim

To retain the quiet solitude of harbours and creeks.

To conserve intertidal habitats and to record archaeological material.



# LCT9 The Undercliff



The Undercliff is an area of landscape character that is unique to the Isle of Wight AONB. This is the largest inhabited rotational landslip in western Europe. It is of major geological, ecological and archaeological importance. There is the added pressure of the need to maintain and protect property, business and transport infrastructure in the area.

Running from Blackgang Chine in the west to Luccombe in the east, the Undercliff sits below the southern chalk downs. The landform is the result of coastal erosion processes and landslips caused by groundwater lubrication of slip planes within the Gault Clays and Sandrock Beds. Its picturesque beauty was appreciated from the late eighteenth century, when the earliest cottages ornés were built. Several more such cottages and marine villas were built in the early nineteenth century.

Valued by artists in the early nineteenth century for its picturesque and sublime natural beauty, the Undercliff quickly became the subject of study as part of wider Victorian interest in geological development and processes. Latterly the Undercliff has been appreciated for its temperate microclimate afforded by the shelter of the inland cliff and its southern aspect. This led to the construction of more residences for the well-to-do and the formation of a 'gardenesque' resort in the late nineteenth and early twentieth centuries, with associated walled gardens and exotic plant species.

The modern Ventnor Botanic Garden, featuring significant plant collections, has been developed in the grounds of a Victorian hospital for the treatment of tuberculosis. The Undercliff retains all of the elements admired and created over the last two centuries, offering a varied landscape of natural elements and man made additions.

Although areas of the inland cliff remain visible there has been a gradual increase in secondary woodland particularly with Holm oak and sycamore, leading to a more enclosed and secretive ambience. The Undercliff Drive, an important through route for local traffic and tourism in the area, continues to be subject to pressure from land movement. Long-term maintenance of vehicle access needs to balance social, economic and environmental considerations if it is to be sustainable. This is also the case for maintenance of and changes to existing or proposed coastal protection schemes.

On-going natural coastal processes are of great ecological importance because the gradual reestablishment of plant species and specialist micro habitats caused by continued land slides is essential for many plant and animal species. This is reflected in the cSAC designation of this area as of great European importance.

# **Key Characteristics**

Dramatic inland vertical cliffs.

Slumped grasslands.

Coastal pasture.

Exotic ornamental planting.

Nineteenth century villas and modern suburban housing with landscaped gardens.

Unmanaged natural woodland regeneration.

# Management Aims

To maintain open slumping habitat.

To enhance the special atmosphere and architectural character of the area.


# LCT10 Osborne Coast



This landscape character type is a distinct part of the coast and hinterland to the north and east of East Cowes. A planned landscape of the nineteenth century, it was largely the concept of Prince Albert, Queen Victoria's beloved Prince Consort. Designed as a very private area screened from the town, the house and terrace afford vistas of the landscaped grounds and Solent beyond. Lying mostly within the extensive grounds of the former Royal estate of Osborne House, this landscape is characterised by rich ornamental and exotic planting, distinctive architecture in comparison to the surrounding traditional enclosed pasture agricultural land, and a wooded shoreline.

Now in the care of English Heritage, Osborne House and its grounds are being restored to their former glory. Major works have been undertaken in the gardens, and on the external fabric of the building. One of the most visited sites under the care of English Heritage, Osborne House is an important cultural and tourism resource for the Isle of Wight. The grounds are included on English Heritage's Register of Historic Parks and Gardens. The private landscape grounds of Norris Castle are also included on the Register and fall within this landscape character type.

Unusually this is the only landscape within the AONB that has no legal informal public access, with no public rights of way recorded in the area. The return to private ownership of Barton Manor Estate immediately adjacent to Osborne has further restricted opportunities for quiet informal recreation in the area.

# **Key Characteristics**

Exotic ornamental planting set within more naturalistic parkland.

Victorian villa architecture.

Very limited informal public access, the exception being the seasonal opening of Osborne House.

Ancient semi-natural woodland.

Wooded coastline.

#### **Management** Aims

To continue restoration of the landscape of the estate as conceived by Prince Albert, and to encourage access and interpretation.

# Northern Coastal Cliffs



A small but important landscape character type occurring along the north-west coast of the Island from Gurnard through to Alum Bay. Consists of low slumped and sloping broken cliffs of clay and gravel that were formed as a result of the effects of the action of the sea on the underlying geology. The main characteristics of this area are rough cliff edges, scrub growth, hollows in the landform and a lack of development because of the instability of the land.

Bordered by agricultural land in the east at Thorness and Gurnard and plantation forestry in the west at Bouldnor near Yarmouth, some opportunities for access are afforded by the Coastal Path and connecting footpaths running inland. Coastal access is always under pressure from erosion because of the need to realign the route.

The majority of this coastline is also designated as Heritage Coast (Hamstead), reflecting its largely unspoilt character, importance for nature conservation, geology and as an area for quiet enjoyment.

# **Key Characteristics**

Characteristically low sloping broken unstable cliffs.

Limited permanent development and public access.

#### **Management** Aims

To restrict development but, where safe, to allow or extend public access to rugged slopes of scrub and heathland.

## 8 Appendix D - Guidance on Applying the Assessment Criteria

The following is extracted from "Assessing the Environmental Capacity for On-Shore Wind Energy Development - Consultation on Proposed Approach to Natural England Guidance", Natural England, 2009:

The following broad approach should be taken for applying the assessment criteria to discrete geographic areas.

#### Assessing capacity

For the area under consideration, there will need to be an appraisal of capacity against each of the criteria outlined in Table 1, using a wide range of written and mapped information sources, described further below. This capacity appraisal will identify if there are broad areas where capacity is likely to be high and broad areas where capacity is more likely to be low.

In assessing capacity, consideration should be given to how a wind farm can "fit" with landscape character. Different types of landscape may have fundamentally different abilities to accommodate wind energy development, due to their different characteristics and features. **Annex 2** sets out general principles relating to wind energy development fit with landscape character that should be applied when assessing capacity, as well as put forward as good practice when commenting on development proposals and draft spatial plans.

No *overall* assessment of capacity should be presented for the area under consideration. This is because environmental and landscape characteristics and values do not readily lend themselves to scoring; and different criteria may carry different weights in different types of landscape and with different types and scales of development.

In addition, no matter how small or large the area under consideration may be, there will always be highly localised variations in levels of capacity, so generalisation is very difficult. Therefore the capacity appraisal will focus on identifying and describing the particular types of area, characteristics and features that are likely to be adversely affected by wind energy development and so have low capacity, at the same time highlighting characteristics and features that may suggest high capacity to accommodate wind energy.

#### Considering scale and cumulative impact

In identifying and describing the capacity of different areas, issues of *scale of development* and *cumulative impact* must also be considered.

Wind farm scale, defined both in terms of turbine groupings and turbine heights, clearly influences the environmental capacity of an area for wind energy development. Similarly the number and distribution of existing wind farms affects the ability of an area to accommodate further wind farms.

#### Considering scale and cumulative impact

In identifying and describing the capacity of different areas, issues of *scale of development* and *cumulative impact* must also be considered.

Wind farm scale, defined both in terms of turbine groupings and turbine heights, clearly influences the environmental capacity of an area for wind energy development. Similarly the number and distribution of existing wind farms affects the ability of an area to accommodate further wind farms.

All commercial scales of development should be considered so as to highlight the broadest possible range of wind energy development opportunities and help optimise wind farm fit with landscape character. However, 120-130m is now widely regarded by the industry as the standard (but not the only) turbine height for commercial wind farm development, and average heights of turbines in production are likely to continue to increase. The capacity assessment should therefore aim to identify broad areas where turbines of this height can successfully be accommodated.

In relation to cumulative impacts, the assessment should include broad advice on spacing between wind farms, taking account of any existing or consented wind farm development at the time, based on the principles in Annex 2.

Ultimately, however, definitive judgements on cumulative impacts can only be made on a case-by-case basis taking account of the siting, layout and intervisibility of the proposed wind farm with other wind farms in the same area. Nonetheless, it may be helpful to flag up at an early stage when and where critical issues of spacing and cumulative impact are likely to arise.

The landscape criteria will also identify areas of low capacity, where wind energy development is likely to cause unacceptable harm to landscape character. The landscape criteria will also, however, allow for an assessment of potential high capacity, i.e. they will be able to identify areas where wind energy can be accommodated from a landscape perspective.

The combined assessment will therefore be able to identify areas of high capacity from both an ecological/geophysical and landscape perspective.

Landscape criteria		
Criterion	Definition of Criterion	Indicators of High Capacity
Scale	A large scale landscape, such as extensive rolling uplands or expansive plains, where the turbines are be in proportion with the landscape, is likely to have greater capacity for wind energy development than a small scale landscape where turbines can appear to dominate.	<ul> <li>Landscape, or parts of landscape, described as broad, extensive or expansive</li> <li>Large areas of consistent landscape type</li> <li>Large parcel (i.e. field enclosure) size</li> <li>Large height differential (over 300m) between valley floors and summits (upland areas only)</li> </ul>
Landform	Landform that is smooth and convex, or flat and uniform will generally have greater capacity for wind energy development than dramatic or rugged landform. This is because the former types of landform tend to be less prominent and less distinctive in character	<ul> <li>Landform described as smooth, flat or uniform (not dramatic, rugged or prominent)</li> <li>No prominent ridgelines, smooth contour patterns</li> <li>Wide contour intervals and gentle slopes (less than 10 degrees)</li> <li>Convex landform</li> </ul>
Landcover	Simple, regular, uncluttered landscapes with sweeping lines and extensive areas of consistent ground cover are likely to have higher capacity for wind energy development than areas with more complex, irregular or intimate landscape patterns (for example ancient, irregular field systems).	<ul> <li>References to simplicity or regularity in landscape descriptions</li> <li>Limited range of land cover types and landscape features</li> <li>Extensive areas of consistent land cover</li> <li>Regular enclosure patterns</li> <li>Simple coastal form (coastal areas only</li> </ul>

 Table 2: Criteria for Assessing Environmental Capacity for On-Shore Wind Energy

 Development

Human Influence	A high degree of human influence on the landscape will generally mean that it has greater capacity to accommodate wind energy development. Turbines are likely to be less conspicuous in brownfield or industrial landscapes already affected by built structures such as masts, pylons or chimneys, provided there are no visual conflicts where the structures are seen in close proximity. Commercial forestry also introduces a human influence to upland landscapes and so will generally have higher capacity.	<ul> <li>References to brownfield or industrial character, or to intrusive features or degraded habitats</li> <li>Presence of features such as major transport corridors, transmission lines, factories, industrial and business parks, quarries, wind farms</li> <li>Presence of MOD land, intensive farming, commercial forestry or brownfield sites</li> <li>Relatively low tranquillity levels</li> </ul>
Skylines and Settings	Landscapes that do not form a distinctive backdrop or context tend to have greater capacity for wind energy development than those with strong visual features and focal points such as hilltop monuments, church spires or designed landscape features, which may form important skylines, landmarks or settings for settlements.	<ul> <li>No references to key skylines, ridge lines, or scarps etc</li> <li>No obvious topographic features of this kind</li> <li>Absence of distinctive natural features, historic features or settlements whose settings might be vulnerable to change</li> <li>Absence of distinctive monuments or landmarks</li> </ul>
Visibility and Views	Landscapes that are visually contained by topography, trees or woodlands and hence have limited inward and outward views will have greater capacity than areas with extensive inward and outward views. Such features may give screening for the lower parts of turbines and for associated access and infrastructure. Extensive close or middle range views from scenic routes, well-known vistas or tourist viewpoints will decrease a landscape's capacity for wind energy development.	<ul> <li>References to strong hedgerow, tree and woodland cover</li> <li>Presence of large forestry</li> <li>plantations or many small woodlands</li> <li>Visual containment by landform</li> <li>Relatively distant (more than 2km) from principal settlements</li> <li>Relatively distant from key tourist routes, viewpoints and National Trails</li> </ul>
Landscape Quality (condition)	Areas where the condition and integrity of landscape patterns, elements and features are relatively good will have less capacity for wind energy development than areas where condition is poor.	<ul> <li>Areas identified as having significant issues in relation to landscape condition (e.g. extensive loss of field boundaries, poor woodland management, poor habitat condition, habitat fragmentation)</li> </ul>
Scenic Quality	Scenic quality, that is visual appeal due to important views, visual interest and variety, contrasting landscape patterns, or dramatic topography, will generally decrease the capacity to	<ul> <li>No reference to specially distinctive, dramatic or striking characteristics or features</li> <li>Lacking in/ relatively distant from landscape designations</li> <li>Not part of a key approach to or setting of designated landscapes</li> </ul>
Wildness and tranquillity	<ul> <li>No reference to wild or tranquil character</li> <li>No reference to remoteness, openness or naturalness</li> <li>Relatively low tranquillity levels</li> <li>Significant levels of activity, noise, light pollution or other disturbance</li> </ul>	•
Historic Environment	The presence of sites and areas containing archaeological, historical or built environment features that are highly valued for their historic environment interest will decrease capacity for wind farms, particularly where these features may directly affected by construction works and/or access tracks; or where or enjoyment and the ability to interpret these features may be diminished.	<ul> <li>Lacking in/relatively distant from special, distinctive or prominent historic features</li> <li>No special concentrations of such features</li> <li>Historic environment features make limited contribution to landscape perceptions and enjoyment</li> </ul>

Cultural Associations	Specific cultural (i.e. historical, folklore, literary or artistic) associations relating to the landscape may result in decreased capacity for wind energy development if the character or perceptions of the landscape concerned are likely to be significantly degraded.	<ul> <li>No specific cultural associations of note</li> </ul>
Amenity and Recreation	Areas offering access to high quality landscapes, memorable places, special experiences and to a range of opportunities for open-air recreation will have less capacity for wind energy development due to potential effects on a site's accessibility and/or on the quality of the recreational experience enjoyed by the public.	<ul> <li>Limited amenity and recreation interests or provision</li> <li>Few opportunities to access and enjoy natural beauty</li> <li>Poor access from centres of population</li> <li>Not National Park</li> <li>Not registered common or CROW</li> </ul>

## 9 Appendix E - General Principles of Wind Energy Development Fit with Landscape Character

The following is extracted from "Assessing the Environmental Capacity for On-Shore Wind Energy Development - Consultation on Proposed Approach to Natural England Guidance", Natural England, 2009

#### Upland landscapes

- Uplands with a simple, rounded and generally horizontal form can often accommodate larger turbine groupings than more dramatic or convoluted upland landforms
- The more extensive and broadly sweeping they are, the greater capacity upland areas will probably have for wind energy development
- An upland area with complex, diverse landforms will generally accommodate smaller turbine groupings more effectively than larger groupings.
- In upland areas with distinct edges or scarps the impact of turbines can be reduced if they are located well back from the edge (*Photo 1*)
- Siting turbines in the central part of a broad upland area can often reduce their visibility from adjoining lowlands. Convex landforms can help reduce visible turbine heights.
- Siting turbines on distinct summits or prominent landforms should generally be avoided. Visual impact can be reduced by selecting sites on less prominent side slopes, benches and gentle undulations.
- It is often hard to fit turbines into landscapes with distinctive topographic features, field patterns, buildings, monuments or other features, without significant impact on landscape character. In such situations turbines are more likely to appear out of scale with their setting (Photo 2).
- The capacity of wilder areas of upland, characterised by open heather moor and bog, is usually less than areas of grass moor or forestry, which can appear to have a more intensely managed character (Photo 3).
- Locations that can utilise existing roads or tracks for access are preferable to locations that require lengthy and often highly visible new access tracks.

#### Coastal landscapes

- Areas with a simple, large scale, flat coastal form generally have the best capacity for wind energy development.
- Areas with complex, varied coastal form, for example areas with cliffs, headlands, islands or intricate rocky shorelines, will often have limited capacity for wind energy development.
- Areas that have a wild, remote and tranquil character will often have limited capacity
- The settings of distinctive, landmark coastal features may have very limited capacity (Photo 6).

• Turbine group size should be appropriate to the scale and character of the coastal landscape. Groups may be relatively large in simple, flat coastal landscapes, but should be smaller in more complex, varied coastal landscapes.



Photo 6: The settings of distinctive, landmark coastal features may have very limited capacity

## **10** Appendix F – References

- Landscape Character Assessment Guidance for England and Scotland, Countryside Agency/SNH 2002 (LCA) (CD G4)
- Guidance for Landscape and Visual Impact Assessment, 2nd Edition, the Landscape Institute with the Institute of Environmental Management and Assessment 2002 (GLVIA)
- Related topic papers posted on-line via the Countryside Character Network; (CCN)
- Visual Assessment of Windfarms: Best Practice University of Newcastle 2002, Scottish Natural Heritage commissioned report. (SNH)
- Guidelines on the Environmental Impacts of Windfarms and Small Scale Hydroelectric Schemes - Scottish Natural Heritage, 2001
- Guidance Cumulative Effect of Wind Farms, Scottish Natural Heritage, 2003 (CSNH)
- Landscape Character Assessment: Guidance for England and Scotland -Countryside Agency / SNH, 2002
- Environmental Impact Assessment: A guide to good practice and procedures: Consultation paper, Department for Communities and Local Government, 2006.
- Cumbria Wind Energy Supplementary Planning Document 2007
- Designing Windfarms in the Landscape Consultation September 2008 Scottish Natural Heritage (CD G13)
- Visual Representation of Windfarms: Good Practice Guidance 2006 Scottish Natural Heritage (CD G14)
- The Essex Guide to Environmental Impact Assessment Essex Planning Officers' Association, revised edition, 2005
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- Environmental Impact Assessment Royal Town Planning Institute, 2001
- Visual Representation of Windfarms Good Practice Guidance Scottish Natural Heritage, 2006
- Cumulative Effect of Windfarms, version 2 Scottish Natural Heritage, 2005
- Cumulative Effects of Wind Turbines, A Guide to Assessing the Effects of Wind Energy Developments – ETSU for the DTI, 2000

- "Assessing the Environmental Capacity for On-Shore Wind Energy Development - Consultation on Proposed Approach to Natural England Guidance", Natural England, 2009
- The Visual Issue: An Investigation into the techniques and methodology used in windfarm computer visualisations – Alan Macdonald, Architech Animation Studios (UK) Ltd, 2007 (critique of conventional techniques)

## Relevant Government Policy (Planning Policy Statements, Companion Guides, Planning Policy Guidance and Circulars)

**PPS1** Delivering Sustainable Development http://www.communities.gov.uk/documents/pdf Supplement to PPS1 - Planning Climate Change http://www.communities.gov.uk/documents/pdf PPS7 Sustainable Development in Rural Areas http://www.communities.gov.uk/documents/pdf PPS9 Biodiversity of Geological Conservation http://www.communities.gov.uk/documents/pdf PPG15 Planning and the Historic Environment http://www.communities.gov.uk/documents/pdf PPG16 Archaeology and Planning http://www.communities.gov.uk/documents/pdf PPS22 Renewable Energy http://www.communities.gov.uk/documents/pdf Planning for Renewable Energy - A Companion Guide to PPS22 http://www.communities.gov.uk/documents/pdf PPS23 Planning and Pollution Control http://www.communities.gov.uk/documents/pdf PPG24 Planning and Noise http://www.communities.gov.uk/documents/pdf Circular 11/95: 'The Use of Conditions in Planning Permissions' http://www.communities.gov.uk/publications/planningandbuilding/circularuse Circular 02/99: 'Environmental impact assessment' http://www.communities.gov.uk/publications/planningandbuilding/circularenv ironmentalimpact