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Landscape Sensitivity to Wind and Solar Energy Development in East Dorset District

Prepared by LUC
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Contents

1 Introduction

Background and Scope

1.1 This study assesses the potential effect of wind and solar photovoltaic (PV) energy developments on landscape character in East Dorset District. It does this on the basis of the subdivision of the District into landscape character areas (LCAs) as identified in the East Dorset Landscape Character Assessment 2008, organised within the landscape character types (LCTs) identified in the Dorset Landscape Character Assessment[1]. Studies in the same format have also been carried out for North Dorset, Purbeck and Christchurch Borough.

1.2 Wind and solar power are two of the more 'mature' forms of renewable energy which have seen considerable growth across the UK in recent years. Planning applications for both types of installation have been submitted in most Dorset Districts and several sizeable schemes have been approved, including two solar farms totalling nearly 125 hectares at Parley, Christchurch, and the four-turbine Alaska Wind Farm at East Stoke near Wareham (although this is awaiting a final decision from the Court of Appeal). The first operational solar farm in Dorset, at Park Farm, Shroton, opened in 2011 and a 60m (to tip) wind turbine at Rogershill Farm, Bere Regis, was constructed in late 2012. Councils in Dorset want to ensure that renewable energy development takes place in the most appropriate locations, and landscape sensitivity is a key element in this.

1.3 Councils in Dorset recognise that the UK has a legally binding target to generate 15% of its energy from renewable sources. The National Planning Policy Framework (NPPF) requires local planning authorities to proactively address the need to increase the use of renewable energy sources; paragraph 97 of the NPPF states:

To help increase the use and supply of renewable and low carbon energy, local planning authorities should recognise the responsibility on all communities to contribute to energy generation from renewable or low carbon sources. They should:

- *have a positive strategy to promote energy from renewable and low carbon sources;*
- *ensuring that adverse impacts are addressed satisfactorily, including cumulative landscape and visual impacts;*
- *consider identifying suitable areas for renewable and low carbon energy sources, and supporting infrastructure, where this would help secure the development of such sources;*
- *support community-led initiatives for renewable and low carbon energy, including developments outside such areas being taken forward through neighbourhood planning; and*
- *identify opportunities where development can draw its energy supply from decentralised, renewable or low carbon energy supply systems and for co-locating potential heat customers and suppliers.*

1.4 Impact on landscape is one of the major planning considerations associated with wind and solar energy so by addressing sensitivity to these things this study will form a key element of the information base for addressing adverse impacts and community concerns, and for developing a positive strategy.

1.5 The study addresses sensitivity of landscape characteristics to wind and solar PV development but also considers the extent to which those characteristics will, at a general level, affect views of that landscape. It is not an assessment of visual sensitivity since that is dependent on the nature and location of the viewers (e.g. whether they are residents of a nearby settlement, tourists or passing motorists), and as such cannot be carried out without more detailed assessment of specific sites, but consideration of the way in which landscape characteristics affect views

[1] Prepared by Dorset Senior Landscape Officer Tony Harris subsequent to the District study – available on-line as an interactive map with associated data.

contributes to an appreciation of the likelihood of a development being considered acceptable or otherwise.

1.6 This assessment considers wind and 'field scale' solar PV developments that require planning consent (permitted development is set out in The Town and Country Planning (General Permitted Development) Order 1995[2]). It does not cover roof mounted turbines or PV panels and it does not encompass freestanding 'back garden' installations or turbines less than 15m high, which can be constructed under Permitted Development planning regulations.

1.7 The assessment of sensitivity is concerned principally with completed, operational developments, not the construction process, since the effects of construction will typically be more limited or associated with a specific development location.

1.8 Although the assessment presented in this document is limited to East Dorset District the methodology takes into consideration the effect of interrelationships with landscapes beyond the District boundary, in both Dorset and neighbouring counties.

Usage

1.9 LUC has been commissioned to undertake sensitivity assessment work for four Dorset Council areas: East Dorset District, Christchurch Borough, Purbeck District and North Dorset District. A common methodology has been employed across all four districts, but results are presented as separate reports for each Council.

1.10 It is intended that this report should:

- Provide guidance to inform the development of design proposals at the pre-application stage;
- Assist the Local Planning Authority with the EIA Screening process;
- Inform the preparation of landscape and visual impact assessments (LVIA) for proposed developments (whether or not Environmental Impact Assessment is a planning requirement);
- Assist with the determination of planning applications;
- Contribute to the evidence base used by the Local Planning Authority to inform policy.

1.11 The assessment of landscape sensitivity to wind and solar PV development presented in this report does not extend to the assessment of the capacity of any given landscape area for such development, although at a basic level it is reasonable to assume that an area in which sensitivity is judged to be lower is likely to be able to accommodate more development than one in which sensitivity is judged to be higher. The question of how much wind or solar development is too much cannot be answered by a landscape sensitivity assessment, because policy considerations beyond landscape character have a key influence on determining strategies for landscape capacity. – i.e. the question of capacity might have strategic considerations beyond those of cumulative impact on landscape character. For example:

- National planning policy, guidance or targets might influence the level of wind or solar provision in an area, affecting the degree of landscape character change that might be considered acceptable by planning authorities in order to accommodate renewable energy;
- Planning authorities may decide to adopt an approach to wind or solar PV energy which focuses development in certain locations, in effect accepting that landscape character will change in these areas as a result but considering this to be preferable to a lesser degree of landscape change over a wider area. Similarly there may be certain locations in which it is decided that no wind or solar PV development (or none beyond a certain scale) will be permitted, even though in terms of landscape character the impact of a particular proposal might, if assessed, be less than in an area not subject to a 'blanket ban'.

[2] http://www.legislation.gov.uk/uksi/1995/418/made/data.pdf

Landscape Sensitivity

1.12 There is currently no published method for evaluating sensitivity of different types of landscape to renewable energy developments. However, the approach taken in this study builds on current guidance published by the Countryside Agency and Scottish Natural Heritage including the Landscape Character Assessment Guidance[3], Topic Paper 6 that accompanies the Guidance[4] and the Landscape Institute and IEMA's guidance for assessing landscape and visual impact[5]. More specifically the assessment methodology reflects the pilot methodology for wind turbine sensitivity assessment set out in the *Dorset Landscape Change Strategy: Pilot Methodology* produced by LUC for Dorset County Council in January 2010, and subsequent and on-going studies of a similar nature.

1.13 Paragraph 4.2 of Topic Paper 6 states that:

'Judging landscape character sensitivity requires professional judgement about the degree to which the landscape in question is robust, in that it is able to accommodate change without adverse impacts on character. This involves making decisions about whether or not significant characteristic elements of the landscape will be liable to loss... and whether important aesthetic aspects of character will be liable to change'

1.14 Two aspects to landscape sensitivity assessment can be identified from this quote: the need to consider the characteristics of the landscape in relation to the type of development proposed – i.e. the *susceptibility* of the landscape – and the need to identify characteristics which are 'significant' or 'important'. These dual aspects of sensitivity are stressed in the latest Landscape Institute and IEMA guidance.

1.15 In this study the following definition of sensitivity has been used, which is based on the principles set out in Topic Paper 6 as well as definitions used in other landscape sensitivity studies of this type:

Landscape sensitivity is the extent to which the character and quality of the landscape is susceptible to change as a result of wind energy/field-scale solar PV development.

Basis of Assessment

1.16 This assessment uses as its 'baseline' the District-level Landscape Character Assessment published in 2008 and the County-level landscape character typologies (LCT) which were informed by District-level assessments. Reference has also been made to the Cranborne Chase and West Wiltshire Downs AONB Management Plan (2009-2014) and the Supplementary Planning Guidance on Areas of Great Landscape Value (1997). All of these studies provide information on landscape characteristics and features, and also on the value which they contribute to overall character (which in some cases is reflected in landscape designations).

1.17 The study has been supported by fieldwork to verify desk-based assessment work. It does not set out to update the LCA, but it is possible that some conclusions with respect to sensitivity will reflect either a different interpretation of characteristics and their relative contribution or physical changes in the landscape which have occurred since the baseline assessments were published.

1.18 Potential effects of development on landscape character draw on LUC's experience in carrying out LVIA for specific development proposals in many part of the UK, preparing guidance on landscape sensitivity for local authorities and observing the landscape effects of operational wind and solar developments.

[3] Countryside Agency and Scottish Natural Heritage (2002) Landscape Character Assessment: Guidance for England and Scotland CAX 84

[4] The Countryside Agency and Scottish Natural Heritage (2004) Landscape Character Assessment Guidance for England and Scotland Topic Paper 6: Techniques and Criteria for Judging Capacity and Sensitivity.

[5] Guidelines for Landscape and Visual Impact Assessment v3 – Landscape Institute and Institute of Environmental Management & Assessment (2013)

Limitations of the Assessment

1.19 Certain locations, either localised or covering a broader area, may be considered less suitable for development for construction or operational reasons, e.g. access roads are too small to accommodate construction traffic or location has limited wind speeds or availability of sunlight. These considerations do not form part of the sensitivity assessment and would be expected to be addressed at an early stage in the consideration of a potential development site.

1.20 There will be local variations in the balance of sensitivities which this district-level study cannot pick out but which an assessment of a specific location for proposed development would be expected to identify. Conclusions on sensitivity are generalisations, hence the approach outlined in section 5 below to indicate factors that would raise the typical level of sensitivity.

1.21 Although it takes into account ancient monuments or other historic landscapes where they form notable landscape features, the guidance does not cover specific cultural heritage/archaeological issues associated with individual designated heritage assets and their settings. Likewise it does not consider ecological issues associated with nature conservation designations, other proposed uses for land which might influence any development proposal (e.g. housing allocations) or technical issues relating to what might make one site more suitable than another for wind or solar PV development. These are factors that will need to be taken into account in site selection and in impact assessment work produced as part of the planning application process.

Document Structure

1.22 Sections 2 and 3 set out the principal components of wind and solar PV energy schemes and the nature of the effects that these could have on physical landscape elements, landscape characteristics and landscape value. Consideration is also given to current development trends in these forms of renewable energy.

1.23 Section 4 looks at the characterisation of the District's landscape in published assessments, providing the baseline information for assessment of sensitivity.

1.24 Section 5 sets out the methodology employed to carry out and present this assessment.

1.25 Section 6 details the criteria against which sensitivity has been assessed, including definitions of sensitivity levels and typologies used to reflect potentially differing levels of sensitivity to different scales of development.

1.26 Section 7 presents the assessment results for East Dorset District.

1.27 Sections 8 and 9 give brief summaries of the sensitivity findings for wind and solar PV development respectively, together with maps to illustrate sensitivity for different scales of potential development across the District.

1.28 Sections 10 and 11 provide generic guidance, for wind and solar PV development respectively, to assist in the identification of potential development sites that minimise adverse landscape and visual impact.

2 Characteristics of Wind Energy Development

Components of Development

2.1 The key components of wind energy development are the wind turbines, which may be grouped together into a 'wind farm'.

2.2 The main visible components of a wind turbine consist of the tower, nacelle and rotor blade system. Depending on the scale and design of the turbine, the transformer may be located inside or outside the tower. The tower itself sits on a buried concrete foundation which is hidden from view.

2.3 In addition to the turbines themselves, developments typically require additional infrastructure as follows:

- Road access to the site able to accommodate Heavy Goods Vehicles (HGVs) carrying long, heavy and wide loads (for the turbine blades and construction cranes);
- On-site access tracks able to accommodate the construction HGVs - the size of these tracks will vary with the size of turbine and will remain during the operation of the wind farm, although they can be narrowed during operation;
- A temporary construction compound and lay down area for major components;
- An area of hardstanding next to each turbine to act as a base for cranes during turbine erection (these can be removed or covered over during operation);
- Underground cables connecting the turbines (buried in trenches, often alongside tracks);
- One or more anemometer mast(s) to monitor wind direction and speed;
- A control building, to ensure that the turbine(s) are operating correctly, and a substation.

2.4 Depending on the scale of the operation and the site terrain, borrow pits may also be required to provide construction materials for the access tracks and/or to create level surfaces.

2.5 Lighting requirements depend on aviation and can be required on turbines. However, aircraft warning lights can be infra-red (IR) and therefore not visible to the naked human eye. Lighting has not been considered as part of the landscape sensitivity study, although guidance will advise that if lighting is required on turbines for aviation purposes, infra-red lighting should be used where possible to minimise visual impacts at night.

2.6 Security fencing may be required, either during construction or on an on-going basis.

2.7 The District Network Operator (DNO) is responsible for establishing a connection between the substation and the national grid. This connection is usually routed via overhead cables on poles, but may be routed underground (a more expensive option). Since these are part of a separate consenting procedure these connections are not being considered as part of the landscape sensitivity study.

Location, Size and Arrangement

2.8 As noted, in paragraph 1.6, this study is concerned with turbines which are at least 15m from base to maximum rotor tip height. The tallest on-shore turbines currently operating in the UK are c.125m to tip, although larger models are available.

2.9 Wind strength and consistency are important factors in determining the efficiency of a turbine, so more exposed locations are favoured, although installations can still be cost-effective in less optimal sites.

2.10 Spacing between wind turbines is typically between 5 and 9 times the rotor diameter, reflecting a balance between minimising capital costs (which will be greater if the site is larger) and minimising loss of efficiency as a result of the 'wind shadowing' effect of upstream turbines (which will be greater if turbines are closer together). However, separation may be as little as 3 times the rotor diameter and, conversely, much wider separation distances may be more effective on larger wind farms.

2.11 A turbine would usually be located far enough away from any residential property to avoid the phenomenon of 'shadow flicker' (see 2.19 below).

2.12 Ecological considerations play a role in the positioning of turbines; in particular they are typically located away from hedgerows to avoid risk of harm to bats (which commute or forage along such linear features).

Appearance

2.13 The majority of wind turbines consist of horizontal axis three-bladed turbines on a steel tower, as shown in **Figure 1** below. Other turbines are available including two bladed turbines and vertical axis turbines.

2.14 Turbines are typically a pale grey colour but some models have gradations in colour on the lower part of the tower, from a darker green at the base to grey further up.

2.15 The movement of a turbine is a unique feature of wind energy, setting it apart from fixed tall structures such as communications masts and electricity pylons.

Permanence

2.16 All forms of turbine are usually given planning permission for 25 years, although applications for upgrading (known as 'repowering') in order to enhance energy production (through larger and/or more efficient turbines) may take place during this period or when it due to elapse.

Figure 1: A three bladed turbine at Stowford Cross, Bradworthy, in Devon.

Effect on Existing Landscape Elements

2.17 The physical surface area required to accommodate a wind turbine will be relatively modest. The construction of turbines and associated infrastructure may result in direct loss of landscape features such as sections of hedgerow (to facilitate access) and will require land surface and land use change in the immediate area of the turbine, although beyond this the existing land use in a field containing a turbine could continue (e.g. grazing or arable cultivation).

2.18 Depending on the road network in the vicinity of a site there may also be requirements for widening, tree clearance or crown-lifting to facilitate access for construction traffic.

2.19 The phenomenon of 'shadow flicker', in which the movement of rotor blades in between the sun and a viewer within a building causes an effect akin to lights being repeatedly switched on and off, only theoretically occurs under specific conditions within a limited distance from a turbine. As such it is a specific residential amenity issue rather than a landscape character issue, and falls outside the remit of this study.

2.20 Earthworks are occasionally undertaken, e.g. to screen certain views, but the scale of this is usually limited.

2.21 A wind turbine / farm is considered a reversible development, so in theory all elements should be removed / reinstated when the site is decommissioned.

2.22 If remote grid connection works are required, these would have to be assessed as a separate development.

Effect on Landscape Characteristics

2.23 Impact on landscape character will in most circumstances relate to changes in the aesthetic and perceptual aspects of landscape character as a result of the introduction of new landscape elements, rather than to any change to or loss of existing physical landscape elements.

2.24 The most significant attribute of a wind turbine is its vertical scale. Even a small turbine is likely to be taller than any landscape element in the vicinity, and the movement that accompanies it will enhance its prominence as a landscape element.

2.25 Other aesthetic aspects of landscape character which could potentially be affected by wind development include the complexity of the landscape, pattern (in the case of wind farms rather than individual turbines) and the combination of texture, form, line, colour and balance which help to define the landscape character of an area.

2.26 Perceptual aspects of landscape character, such as peacefulness and tranquillity, typically reflect a degree of value attributed to the landscape which could be affected by the movement of a turbine and, at close quarters, by the noise it generates. Where tranquillity is associated with a lack of modern development the presence of a distinctly modern structure could also affect perceptions of tranquillity.

Effect on Landscape Value

2.27 Landscapes that have a high scenic quality may be more sensitive than landscapes of low scenic quality. This is particularly the case where the qualities of a designated landscape (e.g. an AONB or AGLV) are likely to be affected by wind energy development.

2.28 All landscapes are likely to be valued to some degree by some people. 'Special qualities' is the term used to describe the characteristics that make an AONB distinctive and valued, but landscapes that are not designated may also have valued elements or characteristics recorded in District or County landscape assessments – e.g. perceptual qualities such as tranquillity.

Development Trends in Wind Energy

2.29 The following information is taken from 'reNews', a twice-monthly renewables industry publication, in a 'special report' of October 2013:

- There were 468MW of new wind energy installations in England in 2013, compared to average of 168MW per year over the period 2008-2012, which can principally be explained by the rush to install before the 10% reduction in the Renewables Obligation subsidy rate in April 2013.
- Developer predictions for new builds in 2014 are still high (a figure of 427MW was quoted in October 2013), but industry observers are predicting that gradual decline will set in within 5 years, as space and wind resource constraints become more significant, with central and southern England seen as having the most limited capacity.
- There is uncertainty in the industry over the degree of political will for continued growth in the sector, with an increasing number of schemes called in by the Department of Communities and Local Government, but decisions so far do not reflect any trend towards decreasing acceptance of wind energy.
- There is increasing competition for grid capacity between wind and solar developments, with their uncorrelated energy generation profiles creating redundant capacity in individual connections, so it is commercially effective to combine wind and solar on one site.

2.30 In the 12 month period to September 2013 there were no planning applications or screening or scoping requests in relation to wind energy developments in East Dorset District.

3 Characteristics of Solar Energy Development

Components of Development

3.1 The principal component of solar PV development is panels of photovoltaic cells, encased in aluminium frames and supported by aluminium or steel stands. An individual panel is typically in the order of 1mx2m in size, but panels are grouped into 'arrays' of around 20 panels, usually in a double-row linear formation.

3.2 Grass is usually grown around and beneath the panels.

3.3 Other features of field scale solar PV may include:

- Temporary storage compounds for plant, machinery and materials during the construction phase.
- Inverters to convert the electricity from DC to AC - which may be housed within new or existing buildings and will require access tracks.
- Transformer and underground power cables to transfer the electricity to the National Grid.
- An on-site power house (usually a Portacabin with a concrete base).
- Security fencing, usually 2-2.5 metres in height, required for insurance purposes.
- Hedgerows or tree planting to screen sites.
- CCTV (such as cameras mounted on 4.5m high poles).
- Access tracks will be necessary on field scale schemes with central inverters (central inverters cannot be delivered and maintained using temporary tracks). In other instances, temporary matting can be used to bring the solar panels to a site (i.e. if a site is not accessible by existing roads or tracks).

Location, Size and Arrangement

3.4 In general, the favoured sites for PV schemes from a technical standpoint are plateau tops or gently sloping landforms, with a southerly aspect required to maximise efficiency. From a logistical standpoint, steep slopes are avoided.

3.5 The size of field-scale solar PV developments may vary considerably.

3.6 Panel arrays are positioned at a fixed angle between 20-40 degrees from the horizontal. The arrays are usually sited in parallel rows with gaps between the rows, typically 5-8m wide, to prevent shading of adjacent rows and to facilitate access.

3.7 The actual arrangement of the arrays within the landscape varies from scheme-to-scheme (i.e. regular layouts versus more varied and irregular, depending on the site situation). Generally though, layouts of the solar arrays tend to be regular.

Figure 2: solar PV development at Benbole Farm, Cornwall

3.8 Some developments contain panels that can be manually rotated several times a year to enable the arrays to track the sun and so ensure maximum capture of the sun's energy, while others feature fixed panels which are positioned to face in a southerly direction. The technology does exist to allow for automatic tracking, although this is at present much rarer. Movement due to automatic tracking is likely to be imperceptible as it will be slow.

3.9 Ground mounted panel arrays are typically set 0.6-1m above ground level, allowing the growth of vegetation beneath and between the arrays and sometimes the associated grazing of stock (usually sheep, since cattle would be more damaging to the installations and would require panels to be set further from the ground). The overall panel array height above ground level, taking into account the angle at which it is set, is usually between 2m and 3m.

Appearance

3.10 Panels are typically described as appearing dark in colour as a result of their non-reflective coating and maximised absorption of light. En-masse they tend to reflect the sky - for example, on a sunny day they can appear bluer while on a cloudy day they can appear a metallic grey. When viewed from a distance panels have sometimes been likened to poly tunnels or, depending on angle of light, to areas of standing water (i.e. reservoirs or lakes).

3.11 Whilst the spacing between rows means that a solar farm will not physically cover a whole field the degree of panel tilt means that, from most viewing angles, coverage will be dense and little will be seen of the ground surface in between rows. Similarly, unless viewed from above, it is unlikely that a whole solar PV development would be visible to the eye.

3.12 Panels may be seen from behind (back of the panels) or from the side (down the rows of frames), which will also influence how they are perceived.

3.13 The possibility of glint or glare emitting from the solar panels is a consideration in terms of the visual health and safety impacts of schemes, as specific alignments associated with a particular development proposal, e.g. a nearby road or airfield runway, might give cause for concern, but this is not addressed as a landscape character issue. Photovoltaic technology requires absorption of sunlight to allow for the conversion of energy to take place, therefore allowing little light energy to be lost, so the extent of impact on landscape character is not generally an issue above any concerns which might exist regarding the modern, man-made materials and geometric form of a solar PV installation.

Permanence

3.14 Like wind farms, solar PV developments are usually given planning permission for 25 years. The initial investment required to set up a solar farm, and its very nature as a renewable energy source, means that it would not be considered a short-term investment.

3.15 Earthworks associated with solar development are not usually major, so landscape impacts in most settings can be considered reversible. Panels do not require concrete foundations.

Figure 3: solar PV development in Muhlhausen, Germany

Figure 4: 1.25 hectare solar PV development at Five Mile Hill near Pathfinder Village, Cornwall

Figure 5: 8 hectare development at Park Farm, Shroton, North Dorset, viewed from Hambledon Hill

Effect on Existing Landscape Elements

3.16 Whilst there is some scope to utilise the space in between panels for other uses, a solar farm is likely, particularly in visual terms, to represent a change in land use. Vegetation within the site area is likely to be affected.

3.17 There may be damage to boundary features, e.g. hedgerows, to facilitate access.

3.18 Earthworks are occasionally undertaken, e.g. to screen certain views, but the scale of this is usually limited.

3.19 A solar farm is considered a reversible development, so in theory all elements should be removed / reinstated when the site is decommissioned.

3.20 Any major works associated with grid connections would have to be assessed as separate developments.

Effect on Landscape Characteristics

3.21 Solar PV development can affect the aesthetic and perceptual aspects of landscape character as a result of the introduction of new landscape elements.

3.22 The most significant aesthetic attributes of a solar PV development are its consistency of texture, form, line and colour and the rigidity of the geometric pattern created by massed arrays of panels. These can constitute a strong contrast with more natural textures and forms. These elements can, depending on the scale of development, have a significant impact on the existing landscape pattern.

3.23 Perceptual aspects of landscape character, such as a sense of rural tranquillity, typically reflect a degree of value attributed to the landscape (see below) which could be affected by the introduction of an overtly modern development such as a solar farm.

Effect on Landscape Value

3.24 Landscapes that have a high scenic quality may be more sensitive than landscapes of low scenic quality. This is particularly the case where the qualities of a designated landscape (e.g. an AONB or AGLV) are likely to be affected by solar PV energy development.

3.25 All landscapes are likely to be valued to some degree by some people. 'Special qualities' is the term used to describe the characteristics that make an AONB distinctive and valued, but landscapes that are not designated may also have valued elements or characteristics recorded in District or County landscape assessments – e.g. perceptual qualities such as tranquillity.

Development Trends in Field Scale Solar PV Energy

3.26 Solar energy development is typically seen as less controversial than large scale wind energy development, and as such it has received clearer government support over recent years than onshore wind energy. Combined with a reduction in construction costs over recent years, this has led to a significant increase in planning applications.

3.27 Reductions in subsidies in 2013 and concerns over limited capacity for new grid connections have fuelled a high level of applications in the last year or so, in particular for larger schemes (above 5MW).

3.28 The information in the table below suggests there is interest in creating large scale solar energy developments in East Dorset, but less interest in smaller field scale schemes.

Table 1: Applications to East Dorset District Council in year to September 2013

Location	Land area (ha)	Other details
Mapperton Farm Almer, Blandford	70ha	28MW Consented, but pending a legal challenge
Homeland Farm Three Legged Cross	28ha	12.5MW Consented
Wedgehill Farm Woodlands	28ha	13MW Pending Decision
Henbury Quarry Corfe Mullen	13ha	3.9MW Pending Decision
Crossroads Plantation Alderholt	10ha	4.5MW EIA Screening Opinion
Manor Farm Verwood	57ha	25MW EIA Screening Opinion
Romford Mill Farm Verwood	11ha	5MW EIA Screening Opinion

4 Baseline Landscape Character

Landscape Character Types and Areas

4.1 The Dorset Landscape Character Assessment subdivides the county into generic landscape character types (LCTs), which may occur either as one discrete area or, more commonly, as a number of separate areas.

4.2 Each LCT has a description which is subdivided into information on location, key characteristics (bullet points followed by a description), management objectives and key land management guidance notes.

4.3 The East Dorset District Assessment also identifies LCTs, which although often named slightly differently are largely contiguous with the County LCTs, but these are only used as an organisational aid; all assessment of landscape character in the District Assessment is carried out at the landscape character area (LCA) level.

4.4 Each LCA description within the District Assessment is subdivided into 'context' (i.e. text identifying its 'parent' LCT), a description, and bullet point lists of key characteristics and key features. Typically one LCT is subdivided into one or more LCAs, but in some instances the LCT boundaries are not aligned with LCA boundaries.

4.5 In order that this assessment can draw on both County LCT and District LCA baseline character data it is sometimes necessary to subdivide the LCA. The table below summarises the relationships between LCTs and LCAs and where necessary makes reference, in the 'notes' column, to any specific treatment for this landscape sensitivity assessment.

Table 2: Landscape categorisation

County LCT	District LCT	District LCA	Notes
Wooded Chalk Downland	Wooded Chalk Plateau	Chase Woods	
Chalk Valley and Downland	Chalk Downland	East Dorset Downs / South Blandford Downs / Bloxworth Downs	These three downland areas are treated as one LCA in the District Assessment because only small areas of the South Blandford and Bloxworth Downs are in the District, but they are separated out in this assessment. Bloxworth Downs continue into both Purbeck and North Dorset Districts, where they are termed Bloxworth/ Charborough Downs, and the South Blandford Downs continue into North Dorset. At County level, distinction is made between the Open Chalk Downland and Chalk Valley & Downland LCTs; East Dorset Downs and South Blandford Downs have elements of each and so are subdivided accordingly.

County LCT	District LCT	District LCA	Notes
Open Chalk Downland	Chalk Downland	East Dorset Downs / South Blandford Downs	At County level, distinction is made between the Open Chalk Downland and Chalk Valley & Downland; East Dorset Downs and South Blandford Downs have elements of each.
Chalk River Valley Floor	Chalk River Valley	Monkton Up Wimborne Valley; Gussage Valley; Crichel Valley; Allen Valley; Lower Winterborne Valley	
Valley Pasture	Lowland River Valley	Lower Stour Valley; Moors River; Lower Avon Valley	
River Terrace	River Terrace	Sturminster Marshall; Merley Ridge - Canford River Terrace; Hampreston River Terrace; Parley River Terrace; Dewlands-Rushmoor River Terrace	In addition to the LCAs defined at District level, the northern end of the Henbury-Corfe Rolling Wooded Pasture LCA falls within the area defined at County level as River Terrace LCT. This area is assessed separately as the Henbury-Corfe River Terrace LCA.
Rolling Wooded Pasture	Rolling Farmland/ woodland	Woodlands - Colehill & Hillbutts farmland/ woodland; Henbury - Corfe (Morden Lytchett) farmland/ woodland	Most of the Henbury-Corfe LCA is defined at County-level as Rolling Wooded Pasture but the boundaries are not contiguous: the lower, northern end of the LCA falls within the River Terrace LCT and some of the eastern area is categorised as part of the Lowland Heath LCT.
Heath/Farmland Mosaic	Heath/Farmland Mosaic	Horton Common-Three Legged Cross; Dudsbury Ridge	
Heath/Forest Mosaic	Forest Heath Mosaic	Ringwood-Hurn Forest/Heath Mosaic; West Moors; Ferndown Forest-Stapehill	Ferndown Forest-Stapehill is categorised as Open Rolling Heath LCT in the District Assessment but Forest Heath Mosaic at County-level
Lowland Heath	Open Rolling Heath	Holt Heath; Upton Heath; West Parley Heath	At County level, part of the adjoining Henbury-Corfe Rolling Farmland/Woodland is defined as Lowland Heath LCT and therefore treated as part of Upton Heath in this sensitivity study.

4.6 **Figure 6** illustrates the LCTs and LCAs into which the East Dorset District landscape is subdivided.

Statutory Designations

4.7 All landscapes can be valued, but approximately 45% of the District is recognised by statutory designation as part of the Cranborne Chase and West Wiltshire Downs Area of Outstanding Natural Beauty (AONB). The AONB designation (under the provisions of the 1949 National Parks and Access to the Countryside Act, with further protection under The Countryside and Rights of Way Act 2000) is for the fundamental purpose of conserving and enhancing natural beauty.

4.8 Para.109 of the National Planning Policy Framework (NPPF) states that "the planning system should contribute to and enhance the natural and local environment" by, amongst other things, "protecting and enhancing valued landscapes". Para.115 identifies AONBs as being valued landscapes, stating that "great weight should be given to conserving landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding Natural Beauty, which have the highest status of protection in relation to landscape and scenic beauty". Para. 116 goes on to say that "planning permission should be refused for major developments in these designated areas except in exceptional circumstances and where it can be demonstrated that they are in the public interest".

4.9 The following "*special characteristics and qualities*" relating to the landscape are identified in the AONB Management Plan (2009-14):

- *Simple and elemental character of the open downland – wide expansive skies, dominant skylines, dramatic escarpments and panoramic views.*
- *Unity of the underlying chalk expressed in the distinctive and sometimes dramatically sculpted landforms, open vistas, escarpments and coombes.*
- *A peaceful, tranquil, deeply rural area; largely 'unspoilt' and maintained as a living agricultural landscape.*
- *Strong sense of remoteness with expanses of dark night skies.*
- *Combination and contrast of the open exposed downland incised by intimate settled valleys and vales.*
- *The very scale of the landscape is often grand and dramatic with the 'intensity' of landscape character almost palpable.*
- *A landscape etched with the imprint of the past…*
- *Sparsely populated with absence of any large-scale settlement – reinforcing the rurality of AONB communities and sense of place.*
- *Distinctive settlement pattern along the valleys and vales, and small Medieval villages along the scarp spring line. Local vernacular building styles include the patterns of knapped flint, brick, clunch, clay tiles and straw thatch.*
- *Overlain by a woodland mosaic – including the eye-catching hill-top copses, veteran parkland trees and avenues, extensive areas of wooded downland and ancient forest together with more recent game coverts.*
- *Legacy of historic Halls and Houses with their characteristic estate and parkland landscapes…*
- *Strong sense of place and local distinctiveness represented by the use of local building materials and small-scale vernacular features such as the sunken lanes and distinctive black and white signposts.*

4.10 A landscape character assessment for the AONB was carried out in 1993[6]. This subdivided the landscape on broadly similar lines to the more recent East Dorset District Assessment. There is no conflict between the two assessments[7] so the more recent study is used as the principal source of information for this sensitivity assessment.

4.11 The significance of an AONB extends beyond the boundaries of its designated area. The draft management plan for the Cranborne Chase and West Wiltshire Downs AONB states that:

[6] Cranborne Chase and West Wiltshire Downs AONB – Integrated Landscape Character Assessment (LUC, 1993)

[7] The 1993 study similarly divides the landscape into escarpment, wooded chalk downland, open chalk downland and chalk river valleys. The principal differences with the District Assessment are that the AONB Assessment treats the valley between the north west of Cranborne and Bowldish Pond as a distinct chalk river valley, instead of part of the wider chalk downland, and the hills to the north east of Cranborne as a distinct landscape type, termed Downnland Hills.

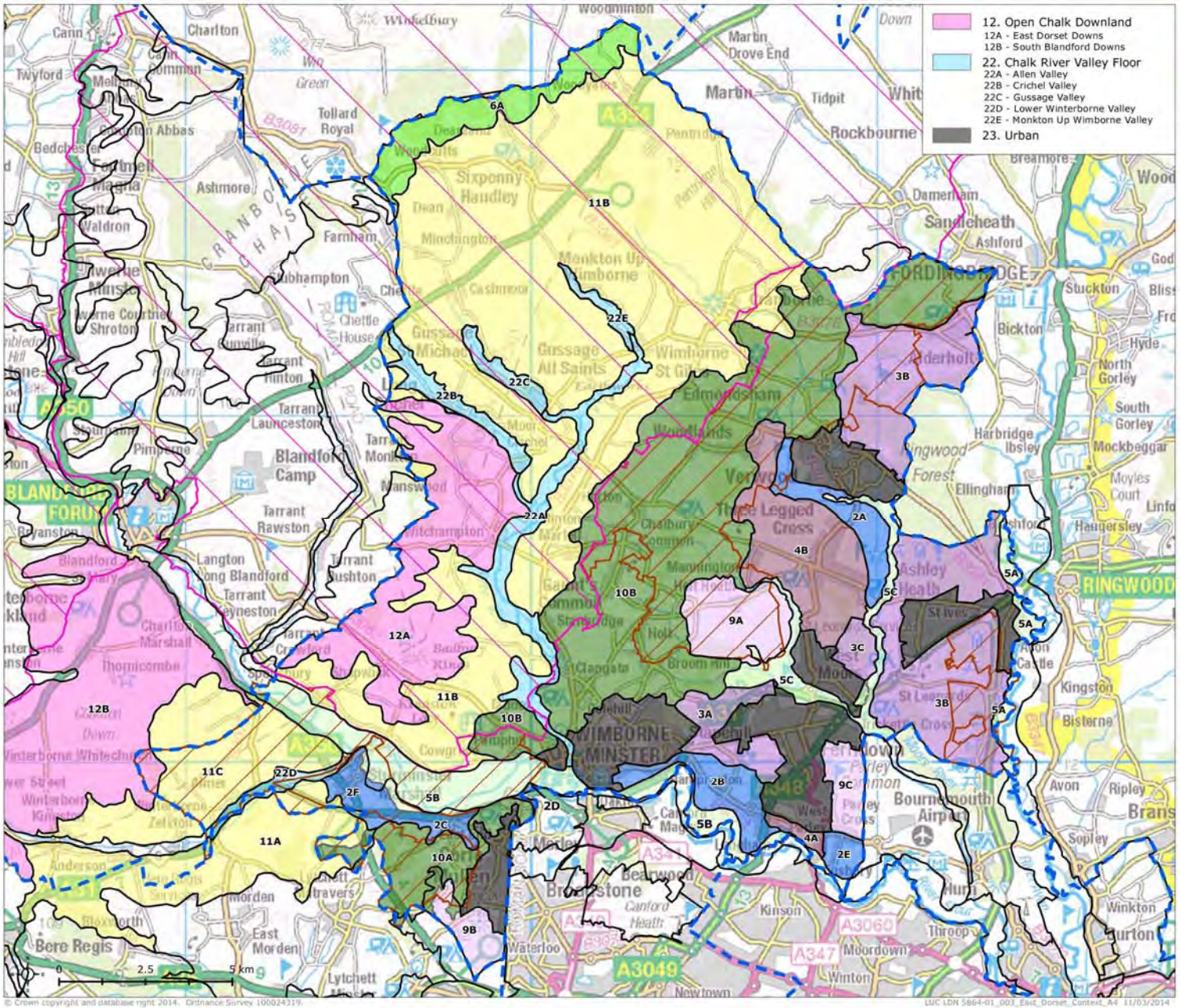
"The setting of an AONB is the surroundings in which the area is experienced. If the quality of the setting declines, then the appreciation and enjoyment of the AONB diminishes. The construction of a distant but high structure; or a change generating movement, noise, odour, vibration or dust over a wide area will affect the setting."

4.12 AONB designations are also indicated on **Figure 6**.

Non-Statutory Designations

4.13 The East Dorset District Local Plan also identifies (in Supplementary Planning Guidance adopted in 1997) a number of Areas of Great Landscape Value (AGLVs), covering in total approximately 23% of the District outside of the AONB, and the draft Christchurch and East Dorset Core Strategy indicates that these designations are to be retained.

4.14 AGLV designations are also indicated on **Figure 6**.



East Dorset Landscape Sensitivity Assessment

Figure 6

East Dorset - Landscape Character Types and Areas

- District boundaries
- LCT boundaries
- LCA boundaries
- Area Of Outstanding Natural Beauty
- Area of Great Landscape Value

Landscape Character Types and Areas

2. River Terrace
2A - Dewlands-Rushmoor River Terrace
2B - Hampreston River Terrace
2C - Henbury - Corfe, Morden-Lycthett farmland/woodland mosaic
2D - Merley Ridge - Canford River Terrace
2E - Parley River Terrace
2F - Sturminster Marshall River Terrace

3. Heath/Forest Mosaic
3A - Ferndown Forest - Stapehill
3B - Ringwood-Hurn Forest/Heath Mosaic
3C - West Moors Forest/Heath Mosaic

4. Heath/Farmland Mosaic
4A - Dudsbury Ridge
4B - Horton Common - Three Legged Cross

5. Valley Pasture
5A - Lower Avon Valley
5B - Lower Stour Valley
5C - Moors River Valley

6. Wooded Chalk Downland
6A - Chase Woods

9. Lowland Heathland
9A - Holt Heath
9B - Upton Heath
9C - West Parley Heath

10. Rolling Wooded Pasture
10A - Henbury - Corfe, Morden-Lytchett farmland/woodland mosaic
10B - Woodlands-Colehill & Hillbutts farmland/woodland mosaic

11. Chalk Valley & Downland
11A - Bloxworth/Charnborough Downs
11B - East Dorset Downs
11C - South Blandford Downs

Map Scale @ A4: 1:155,000

LUC

Source: East Dorset District Council

5 Methodology

Components of Landscape Sensitivity

5.1 The sensitivity of a landscape will depend on the **susceptibility** of the characteristics of that landscape to change as a result of the development type in question, the extent of **contribution** of those characteristics to landscape character and the overall **value** attached to the landscape.

5.2 It is recognised that it is not the intention of the District Assessment to attribute relative levels of value to different character areas. This approach is in keeping with LCA guidance[8], which recognises that all landscapes are valued to some extent by some people, but LVIA guidance[9] recognises that there are differences in value which will affect sensitivity, so some consideration of value is therefore required.

5.3 The methodology outlined below presents a systematic approach to assessing sensitivity, making judgements as objectively as possible.

Sensitivity Assessment Process

5.4 Section 6 defines sets of **assessment criteria** relating to wind and solar PV energy development. The criteria are the same for both development types, but the definitions of relative levels of susceptibility vary. The definitions for each sensitivity criterion include examples to illustrate five different levels of sensitivity (see **Table 3**).

5.5 The level of impact on landscape character resulting from a development will clearly depend to an extent on the scale of the proposed development so it is necessary to consider different scenarios. These take account of the variable characteristics of each development type which are most likely to have an effect on landscape character. Section 6 therefore also defines the different **scales of development** for wind and solar PV energy that have been used in this study.

5.6 Section 7 sets out the **assessment of sensitivity to wind and solar PV energy development**. This is presented at the generic Landscape Type (LCT) level, with detailed information presented for constituent Landscape Character Areas (LCA).

5.7 Landscape Character Type assessments:

- The County-level LCT summaries are studied to identify characteristics which reflect **susceptibility** to change as a result of wind or solar PV development as defined in the assessment criteria;
- Any designations which indicate landscape value, and any characteristics or sensitivities identified in the LCT summary which reflect aspects of landscape **value**, are noted. The landscape typologies provide guidance on management objectives which gives a clear indication of value through the identification of elements to conserve, protect or restore. The latest LVIA guidance suggests a number of factors which can be used to identify the value of landscapes (see definitions in **Figure 7** below);
- Comments are made on the 'typical' sensitivity within the LCT, weighing up the relative **contribution** of different characteristics and taking into consideration any aspects of landscape **value** which would affect the judgements.

5.8 Landscape Character Area assessments:

[8] Countryside Agency and Scottish Natural Heritage (2002) Landscape Character Assessment: Guidance for England and Scotland CAX 84

[9] Guidelines for Landscape and Visual Impact Assessment v3 (2013) – Landscape Institute and IEMA

- The above steps are repeated for each LCA represented within the LCT, making reference to the published landscape character assessment and, where applicable, any landscape character information provided in AONB management plans or AGLV Supplementary Planning Guidance;
- An assessment of the LCA's sensitivity, represented by a rating on a five-point scale (defined in **Table 3** below), is made for each combination of the defined **scales of development** for each development type. Consideration is given to any characteristics or features which would elevate the typical level of sensitivity within each LCA.

5.9 Presentation of the landscape sensitivity assessment results:

- Sections 8 and 9 comprise brief summaries of the assessment findings for wind and solar PV energy respectively, followed by maps illustrating sensitivity ratings across the district for each development scale category. AONB and AGLV boundaries are also shown.
- In addition to the assessment of sensitivity by LCA/LCT a generic check list is provided, in **Section 10** for wind energy and **Section 11** for solar PV, to assist potential developers in the consideration of the sensitivity of a specific site.

Table 3: Sensitivity definitions

Sensitivity Level	Definition
High	Key characteristics and qualities of the landscape are highly vulnerable to change from the development type. Such development is likely to result in a significant change in character.
Moderate-high	Key characteristics and qualities of the landscape are vulnerable to change from the development type. There may be some limited opportunity to accommodate the development type without significantly changing landscape character. Great care would be needed in locating development.
Moderate	Some of the key characteristics and qualities of the landscape are vulnerable to change from the development type. Although the landscape may have some ability to absorb development, it is likely to cause a degree of change in character. Care would be needed in locating development.
Moderate-low	Fewer of the key characteristics and qualities of the landscape are vulnerable to change from the development type. The landscape is likely to be able to accommodate development with limited change in character. Care is needed when locating development to avoid adversely affecting key characteristics.
Low	Key characteristics and qualities of the landscape are unlikely to be adversely affected by introduction of the development type. The landscape is likely to be able to accommodate development without a significant change in character. Care is needed when locating development to ensure best fit with the landscape.

Range of factors that can help in the identification of valued landscapes

- **Landscape quality (condition)**: A measure of the physical state of the landscape. It may include the extent to which typical character is represented in individual areas, the intactness of the landscape and the condition of individual elements.
- **Scenic quality**: The term used to describe landscapes that appeal primarily to the senses (primarily but not wholly the visual senses).
- **Rarity**: The presence of rare elements or features in the landscape or the presence of a rare Landscape Character Type.
- **Representativeness**: Whether the landscape contains a particular character and/or features or elements which are considered particularly important examples.
- **Conservation interests**: The presence of features of wildlife, earth science or archaeological or historical and cultural interest can add to the value of the landscape as well as having value in their own right.
- **Recreation value**: Evidence that the landscape is valued for recreational activity where experience of the landscape is important.
- **Perceptual aspects**: A landscape may be valued for its perceptual qualities, notably wildness and/or tranquillity.
- **Associations**: Some landscapes are associated with particular people, such as artists or writers, or event in history that contribute to perceptions of the natural beauty of the area.

Figure 7: Aspects of landscape value (from Guidelines for Landscape and Visual Impact Assessment v3)

6 Criteria for Assessment of Sensitivity

Criteria for Assessment of Sensitivity to Wind Energy Development

6.1 **Table 4** identifies landscape characteristics which could potentially be affected by wind development, and gives examples of physical landscape elements which, by exhibiting these characteristics, might suggest a greater susceptibility to character change.

Table 4: Landscape characteristics and their susceptibility to wind energy development

Scale and complexity of landform				
A smooth gently sloping or flat landform is likely to be less sensitive to wind energy development than a landscape with a dramatic rugged landform, distinct landform features (including prominent headlands and cliffs) or pronounced undulations. Larger scale landforms are likely to be less sensitive than smaller scale landforms - because turbines may appear out of scale, detract from visually important landforms or appear visually confusing (due to turbines being at varying heights) in the latter types of landscapes. Information sources: Landscape Character Assessment, Ordnance Survey maps; fieldwork.				
Examples of sensitivity ratings				
Lower sensitivity		⟷		**Higher sensitivity**
e.g. an extensive lowland flat landscape or elevated plateau, often a larger scale landform	e.g. a simple gently rolling landscape, likely to be a medium-large scale landform	e.g. an undulating landscape, perhaps also incised by valleys, likely to be a medium scale landform	e.g.a landscape with distinct landform features, and/or irregular in topographic appearance (which may be large in scale), or a smaller scale landform	e.g. a landscape with a rugged landform or dramatic landform features (which may be large in scale), or a small scale or intimate landform

Scale and complexity of land use & field pattern				
Simple, regular landscapes with extensive areas of consistent ground cover are likely to be less sensitive to wind energy development than landscapes with more complex or irregular land cover patterns, smaller and / or irregular field sizes and landscapes with frequent human scale features that are traditional of the landscape, such as stone farmsteads and small farm woodlands [10]. This is because large features such as wind turbines may dominate smaller scale traditional features within the landscape. Information sources: Landscape Character Assessment, Ordnance Survey maps; Google Earth (aerial photography); fieldwork.				
Examples of sensitivity ratings				
Lower sensitivity	⟷			**Higher sensitivity**
e.g. a very large-scale landscape with uniform groundcover and lacking in human scale features	e.g. a landscape with large-scale fields, little variety in land cover and occasional human scale features such as trees and domestic buildings	e.g. a landscape with medium sized fields, some variations in land cover and presence of human scale features such as trees, domestic buildings	e.g.a landscape with irregular small-scale fields, variety in land cover and presence of human scale features such as trees, domestic buildings	e.g. a landscape with a strong variety in land cover and small-scale / irregular in appearance containing numerous human scale features
Visual exposure				
The relative visibility of a landscape or distinctive elements within it, both from within the character area and in relation to other character areas, will influence its sensitivity. An open, elevated landscape such as a hill range or escarpment, which permits panoramic views and is also widely visible from surrounding landscapes, may be more sensitive than a more enclosed, inward-looking landscape, where turbines are more likely to be screened by vegetation and/or topography. Landscapes which have important visual relationships with other areas, for example where one area provides a skyline backdrop to a neighbouring area, are considered more sensitive than those with less important visual relationships. The sensitivity of the related landscapes will also affect the importance of visual exposure: a character area will for example be more sensitive if it forms part of the setting of a designated landscape (e.g. an AONB), and if the character area itself also has high scenic quality then its sensitivity will be further magnified. Visual sensitivities may also relate to specific landscape features, such as a prominent ancient monument. Information sources: Landscape Character Assessment, fieldwork.				
Examples of sensitivity ratings				
Lower sensitivity	⟷			**Higher sensitivity**
e.g. An enclosed, self-contained landscape, or one with weak connections to neighbouring areas, and/or where related landscapes are of lower sensitivity	e.g. A landscape with limited connections to neighbouring areas, and/or where related landscapes are of low or medium sensitivity	e.g. A landscape which has some relationship with neighbouring areas, and/or where related landscapes are of medium sensitivity	e.g. A landscape which is intervisible with several related areas, and/or where related landscapes are of medium or higher sensitivity	e.g. A landscape which has important relationships with one or more neighbouring areas, and/or where related landscapes are of high sensitivity

[10] Human scale features are aspects of land cover such as stone walls, hedges, buildings which give a 'human scale' to the landscape

Development and activity
Landscapes that are relatively remote or tranquil tend to be more sensitive to wind energy development, since turbines may be perceived as intrusive. Landscapes which are relatively free from overt human activity and disturbance, and which have a perceived naturalness, or a strong feel of traditional rurality, or are dominated by historic rather than modern buildings, will therefore be more sensitive. Wind turbines will generally be less intrusive in landscapes which are strongly influenced by modern development, including settlement, industrial and commercial development and infrastructure. Information sources: Landscape Character Assessment, Ordnance Survey maps, fieldwork.

Examples of sensitivity ratings				
Lower sensitivity		⟷		**Higher sensitivity**
e.g. a landscape with much human activity and development, such as industrial areas	e.g. a rural or semi-rural landscape with much human activity and dispersed modern development, such as settlement fringes	e.g. a rural landscape with some modern development and human activity, such as intensive farmland	e.g. a landscape with much human activity and development, such as industrial areas	e.g. a rural or semi-rural landscape with much human activity and dispersed modern development, such as settlement fringes

Wind Energy Development Typologies

6.2 For the purposes of presenting the assessment, the following wind turbine height categories are defined:

- 15-35 metres to blade tip;
- 36-65 metres to blade tip;
- 66-99 metres to blade tip;
- Over 99 metres to blade tip.

6.3 The following cluster size categories are also defined:

- A single turbine;
- 2-4 turbines;
- More than 4 turbines.

6.4 These typologies have been defined with reference to the spread of turbine sizes available, the sizes of turbines already operational in the County, the range of sizes for which planning applications or pre-application requests have been made and a general assessment of sensitivity of the Dorset landscape.

6.5 In order to visualise how these different turbine heights relate to other tall structures, **Table 5** and **Figure 8** below set out the heights of features including some well-known landmarks and existing wind energy developments in the County:

Table 5: Tall structures comparison

Structure	Height
Domestic buildings	6-10m
Mature deciduous trees (depending on species)	10-25m
Charborough Tower	30m
Horton Tower, near Chalbury Common	43m
Standard lattice tower 'pylons'	25-50m
Sealife Tower, Weymouth	53m
Rogershill Farm turbine, near Bere Regis	60m (to tip)
Salisbury Cathedral	123m

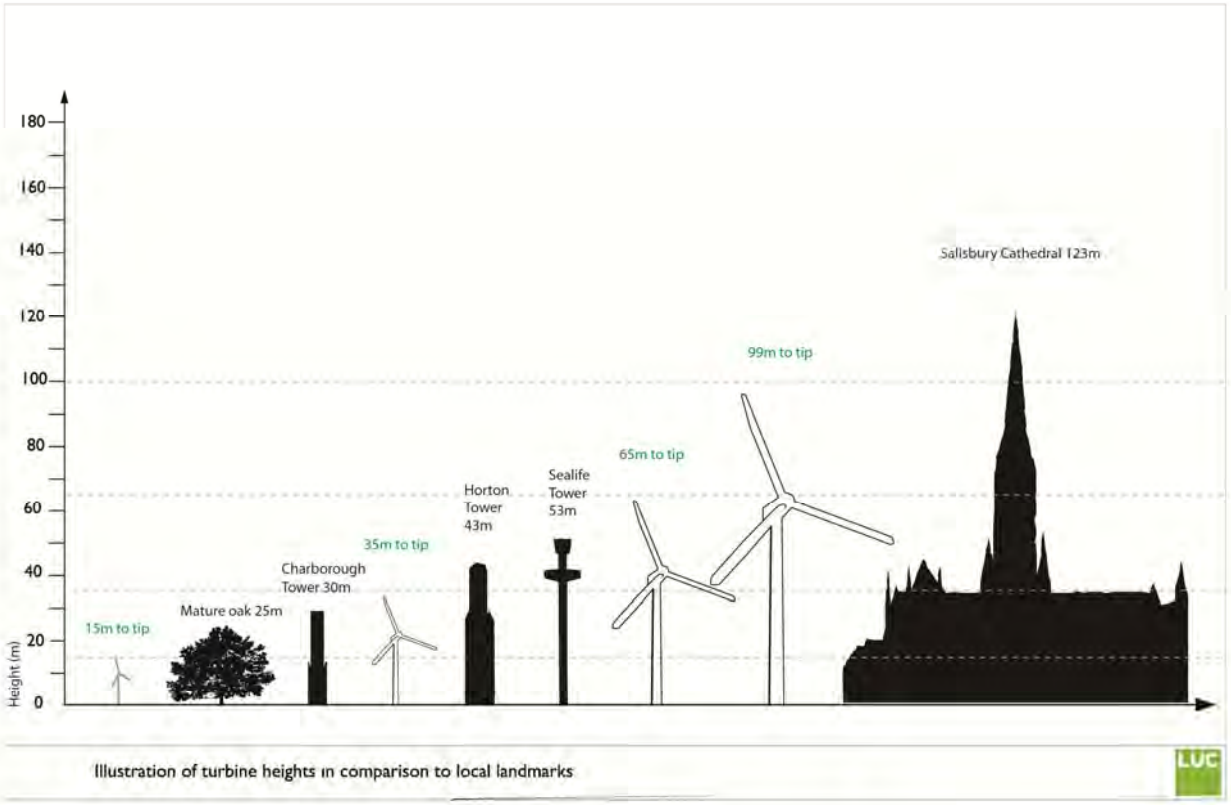


Figure 8: Tall structures comparison

Criteria for Assessment of Sensitivity to Solar PV Development

6.6 **Table 6** below identifies landscape characteristics which could potentially be affected by solar PV development, and gives examples of physical landscape elements which, by exhibiting these characteristics, might suggest a greater susceptibility to character change.

Table 6: Landscape characteristics and their susceptibility to solar PV development

Scale and complexity of landform				
Arrays of solar panels will be less easily perceived in a flatter landscape than on a sloping one, and will also stand out less if the landform is even rather than undulating. A landscape in which topographic variations occur at a more localised scale is more likely to contrast with solar PV land use than a larger scale landscape in which variations are less frequent. The margins of character areas may be more sensitive, if there is a distinct change in landform. Information sources: Landscape Character Assessment, Ordnance Survey maps; fieldwork.				
Examples of sensitivity ratings				
Lower sensitivity		⟷		**Higher sensitivity**
e.g. An extensive flat lowland landscape or elevated plateau, often a larger scale landscape with no distinctive landform features	e.g. A simple, gently rolling landscape, likely to be of medium-large scale, without distinctive landform	e.g. An undulating landscape, perhaps also incised by valleys, likely to be of medium scale	e.g. A landscape with distinct landform features, and/or irregular in topography (which may be large in scale), or a smaller scale landform	e.g. A landscape with a distinctive, rugged landform or dramatic topographical features (which may be large in scale), or a small scale or intimate landform
Scale and complexity of land use & field pattern				
A solar farm is a very homogeneous and typically geometric form, and one which is likely to contrast with more natural textures. The presence of a diversity of land uses in the landscape will act to reduce sensitivity in this respect, particularly if those uses include arable land, horticulture or brown-field sites, whereas there is more likelihood that solar PV development will stand out as a significant change in a semi-natural landscape or one in which permanent pasture features heavily. However, complexity of land use needs to be considered in tandem with scale and complexity of field patterns: the size of a proposed development relative to the scale of the field pattern in the locality is an important consideration because of the risk of diluting or masking the characteristic landscape patterns through development that is out of scale with boundary features. In general terms landscapes with small-scale, more irregular field patterns are likely to be more sensitive to the introduction of solar PV development than landscapes with medium or large scale fields in regular, geometric patterns, although an open area lacking field boundaries would also be highly susceptible to the imposition of a new pattern. Information sources: Landscape Character Assessment, Ordnance Survey maps; Google Earth (aerial photography); fieldwork.				
Examples of sensitivity ratings				
Lower sensitivity		⟷		**Higher sensitivity**
e.g. A landscape with a strong variety in land cover, including significant arable or 'brownfield' elements, but with a geometric, medium or large field pattern	e.g. A mixed pastoral and arable landscape with medium sized fields mostly in geometric forms	e.g. A mixed pastoral and arable landscape with a some variation in field sizes or shapes and some semi-natural land cover	e.g. A landscape with irregular or small-scale fields and some variety of land use but largely pastoral	e.g. A landscape of small, irregular fields with uniform pastoral land use, or an open semi-natural landscape

Visual exposure				
The relative visibility of a landscape or distinctive elements within it, both from within the character area and in relation to other character areas, will influence its sensitivity. A landscape with a strong sense of enclosure is likely to be less sensitive to solar PV development than a more open and exposed landscape in which the development can be more readily perceived. Landscapes which have important visual relationships with other areas, for example where one area provides a skyline backdrop to a neighbouring area, are considered more sensitive than those with less important visual relationships. The sensitivity of the related landscapes will also affect the importance of visual exposure: a character area will for example be more sensitive if it forms part of the setting of a designated landscape (e.g. an AONB), and if the character area itself also has high scenic quality then its sensitivity will be further magnified. Visual sensitivities may also relate to specific landscape features, such as a prominent ancient monument. Information sources: Landscape Character Assessment, fieldwork.				
Examples of sensitivity ratings				
Lower sensitivity		⟷		**Higher sensitivity**
e.g. An enclosed, self-contained landscape, or one with weak connections to neighbouring areas, and/or where related landscapes are of lower sensitivity	e.g. A landscape with limited connections to neighbouring areas, and/or where related landscapes are of low or medium sensitivity	e.g. A landscape which has some relationship with neighbouring areas, and/or where related landscapes are of medium sensitivity	A landscape which is intervisible with several related areas, and/or where related landscapes are of medium or higher sensitivity	e.g. A landscape which has important relationships with one or more neighbouring areas, and/or where related landscapes are of high sensitivity
Development and activity				
Landscapes which show evidence of modern development, including settlement, industrial and commercial development and infrastructure, tend to be less sensitive to solar PV development. Landscapes which are relatively free from overt human activity and disturbance, and which have a perceived naturalness, a strong feel of traditional rurality or are dominated by historic rather than modern buildings, will therefore be more sensitive. Information sources: Landscape Character Assessment, Ordnance Survey maps, fieldwork.				
Examples of sensitivity ratings				
Lower sensitivity		⟷		**Higher sensitivity**
e.g. A landscape with much human activity and development, such as industrial areas	e.g. A rural or semi-rural landscape with much human activity and dispersed modern development, such as settlement fringes	e.g. A rural landscape with some modern development and human activity, such as intensive farmland	e.g. A more naturalistic or historic landscape and/or one with little modern human influence and development	e.g. A tranquil landscape with little or no overt sign of modern human activity and development

Solar PV Development Typologies

6.7 Of the scheme elements considered in **Section 3** the only one which is considered to offer sufficient variation to have a significant impact on landscape sensitivity is the overall size of the solar PV development in terms of the land area covered by panels. The technology is very scalable, and can be used from garden-sized installations upwards; applications as large as 50 hectares have been submitted elsewhere in the UK. In general, the larger the proposed

development the greater its impact is likely to be, but the characteristics of the landscape in which it is sited may either emphasise or diminish this impact.

6.8 The density of rows of solar PV panels doesn't tend to vary more than is necessary to allow sufficient spacing to avoid over-shading (which will differ a little depending on latitude), and the general appearance of a solar farm, in terms of array design, materials and associated fencing and built infrastructure, are fairly consistent.

6.9 Higher arrays are unlikely to appear because any benefit of additional vertical panels would be offset by the need to set parallel rows of arrays further apart, to avoid shading. A rare exception to this is where the intention is to graze cattle beneath the panels, requiring higher and stronger mountings.

6.10 For the purposes of assessing landscape sensitivity through this study, the following scales of solar PV development are defined:

- Up to 1 hectare (2.5 acres);
- 1 to 10 hectares (2.5 to 25 acres);
- 10 to 30 hectares (25 to 75 acres);
- Over 30 hectares (75 acres).

6.11 This banding has been defined with reference to the sizes of solar PV development already operational in the County, the range of sizes for which planning applications or pre-application requests have been made and a general assessment of sensitivity of the Dorset landscape.

6.12 In order to visualise these different areas, the table below sets out the size of features including some well-known landmarks and existing solar energy developments in the County:

Table 7: Comparative areas

Structure	Area (hectares)
Typical football pitch	0.6 – 0.8
Moors Lake (in Moors Valley Country Park)	3.6
Badbury Rings Hill Fort	7
Solar Farm at Park Farm, Shroton	8
Longham Reservoir (south of Ferndown)	10
Poole Park Boating Lake	21
Typical 18-hole golf course	50

7 Assessment of Sensitivity to Wind and Solar PV Energy Development in East Dorset

Using the assessment for a specific location or area

7.1 The assessment is presented by **Landscape Character Type** (LCT) so the map of all LCTs within the District in **Figure 6** should be referenced to identify the relevant LCT(s).

7.2 The heading page for each LCT (**Figure 9**) gives the names of the **Landscape Character Areas** (LCAs) that fall (wholly or partly) within the LCT and a **map** is provided to illustrate the relevant LCT and LCA boundaries within the District. A smaller inset map shows occurrences of the LCT across the whole County. It should be noted that there is not always a consistent relationship between LCTs and LCAs: typically an LCT will subdivide into one or more LCAs but sometimes one LCA will cover more than one LCT (as noted in **Table 2** in section 4).

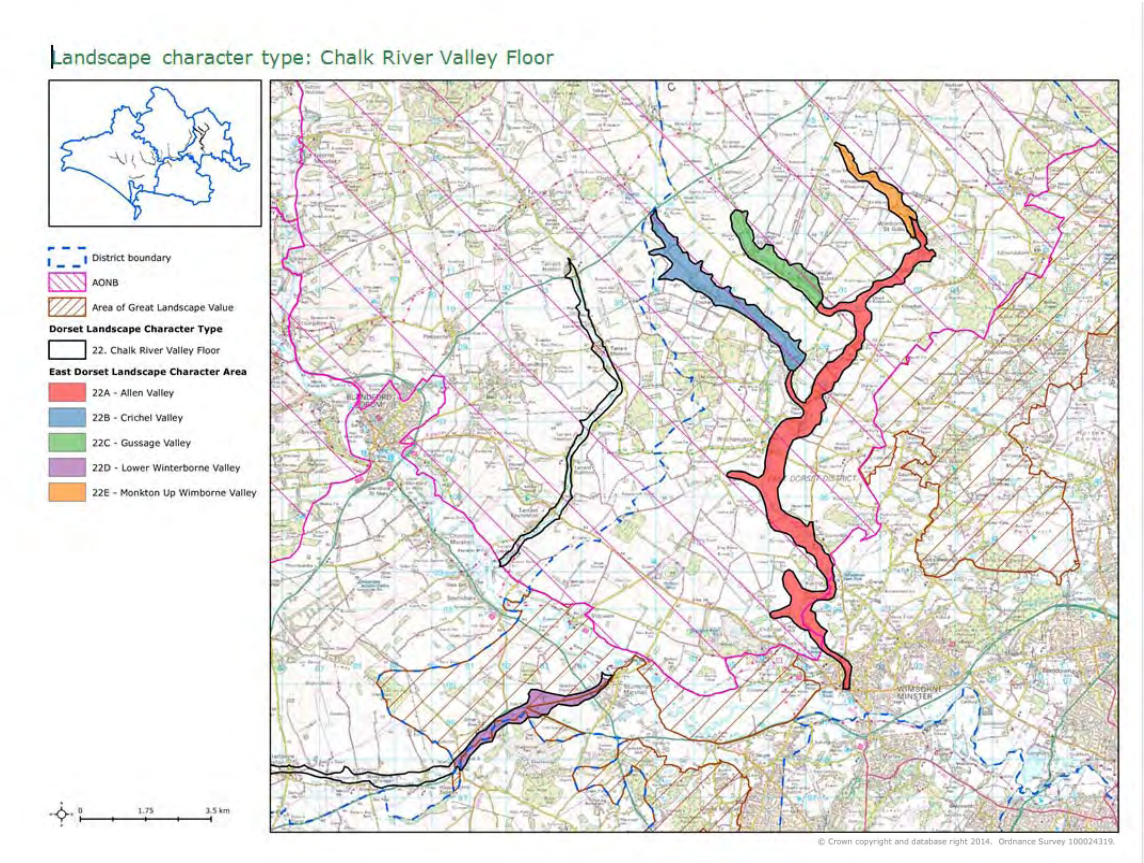


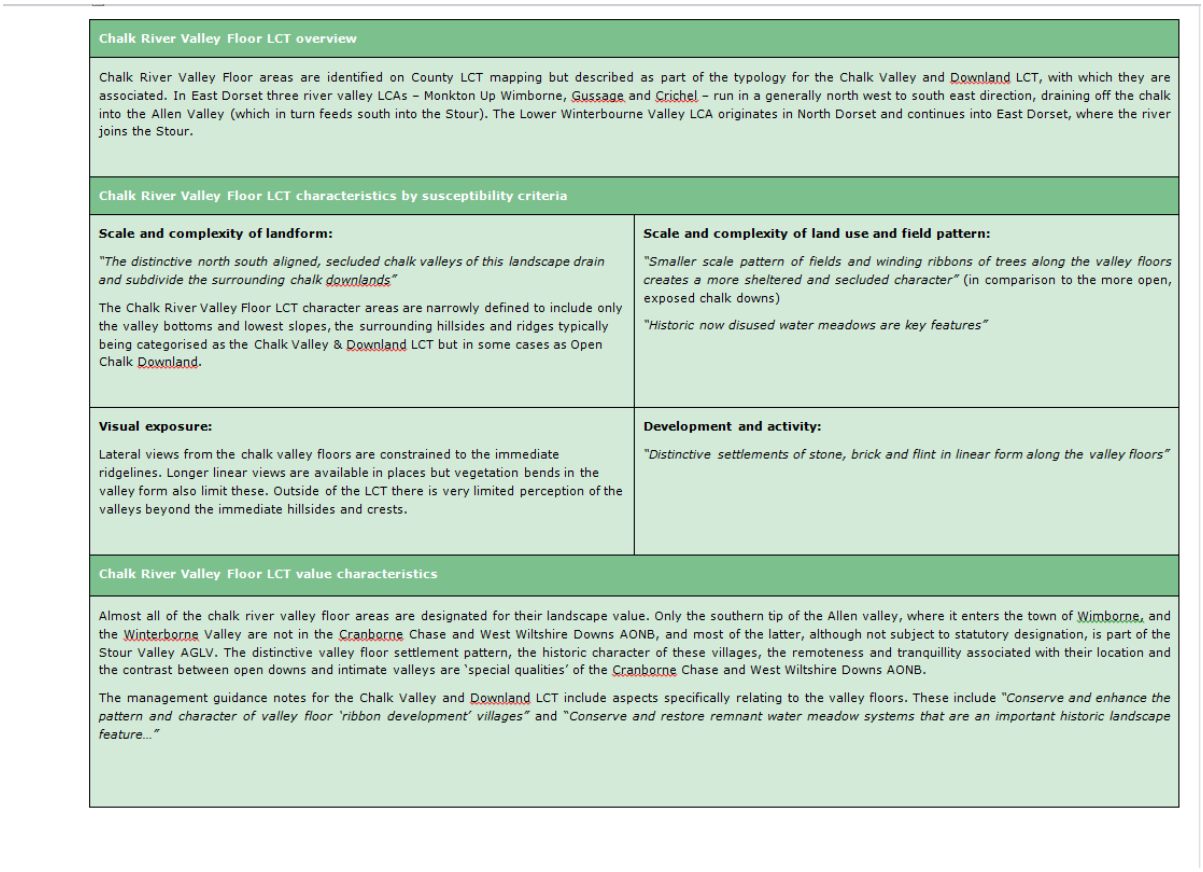
Figure 9: example of heading page for LCT

7.3 Where a substantial part of an LCA is defined at County-level as being in a different LCT to the rest the LCA assessment is likewise split, but where boundary differences between LCT and LCA definitions are less significant, affecting only small areas, the LCA is assessed as a whole. In the case of an area of interest in an LCA falling outside of the boundary for the LCT, as will be clear from the assessment mapping, the reader should also make separate reference to the assessment for the nearest LCA in the LCT in question, in case this identifies any potential differences in sensitivity.

7.4 An assessment table for the LCT (**Figure 10**) follows the map page. This starts with a brief **overview** of the LCT location and relationship with LCAs and surrounding LCTs. The following lines list relevant information from the County-level 'key characteristics' and 'landscape

management guidance' for the LCT, arranged under headings of **susceptibility criteria** (as identified in section 6 above). Direct quotes from published assessments are shown in italics, whilst other text represents the assessment judgements formed by LUC on the basis of the published assessments and supported by fieldwork carried out by LUC between October and December 2013.

7.5 The LCT descriptions are also drawn upon to identify any factors which add **value** either to the LCT or to particular elements within it. These might be 'special qualities' associated with a designated landscape (e.g. an AONB) or other aspects of value (see **Figure 7**) which could influence the sensitivity of the landscape to wind or solar PV development.



Chalk River Valley Floor LCT overview

Chalk River Valley Floor areas are identified on County LCT mapping but described as part of the typology for the Chalk Valley and Downland LCT, with which they are associated. In East Dorset three river valley LCAs – Monkton Up Wimborne, Gussage and Crichel – run in a generally north west to south east direction, draining off the chalk into the Allen Valley (which in turn feeds south into the Stour). The Lower Winterbourne Valley LCA originates in North Dorset and continues into East Dorset, where the river joins the Stour.

Chalk River Valley Floor LCT characteristics by susceptibility criteria

Scale and complexity of landform:

"The distinctive north south aligned, secluded chalk valleys of this landscape drain and subdivide the surrounding chalk downlands"

The Chalk River Valley Floor LCT character areas are narrowly defined to include only the valley bottoms and lowest slopes, the surrounding hillsides and ridges typically being categorised as the Chalk Valley & Downland LCT but in some cases as Open Chalk Downland.

Scale and complexity of land use and field pattern:

"Smaller scale pattern of fields and winding ribbons of trees along the valley floors creates a more sheltered and secluded character" (in comparison to the more open, exposed chalk downs)

"Historic now disused water meadows are key features"

Visual exposure:

Lateral views from the chalk valley floors are constrained to the immediate ridgelines. Longer linear views are available in places but vegetation bends in the valley form also limit these. Outside of the LCT there is very limited perception of the valleys beyond the immediate hillsides and crests.

Development and activity:

"Distinctive settlements of stone, brick and flint in linear form along the valley floors"

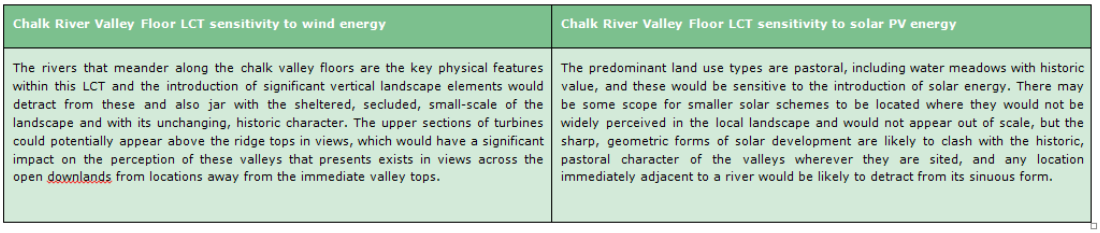
Chalk River Valley Floor LCT value characteristics

Almost all of the chalk river valley floor areas are designated for their landscape value. Only the southern tip of the Allen valley, where it enters the town of Wimborne, and the Winterborne Valley are not in the Cranborne Chase and West Wiltshire Downs AONB, and most of the latter, although not subject to statutory designation, is part of the Stour Valley AGLV. The distinctive valley floor settlement pattern, the historic character of these villages, the remoteness and tranquillity associated with their location and the contrast between open downs and intimate valleys are 'special qualities' of the Cranborne Chase and West Wiltshire Downs AONB.

The management guidance notes for the Chalk Valley and Downland LCT include aspects specifically relating to the valley floors. These include *"Conserve and enhance the pattern and character of valley floor 'ribbon development' villages"* and *"Conserve and restore remnant water meadow systems that are an important historic landscape feature..."*

Figure 10: example of LCT description page

7.6 General comments are made regarding the sensitivity of the LCT to wind and solar energy, with reference to the susceptibility criteria and landscape value (**Figure 11**).



Chalk River Valley Floor LCT sensitivity to wind energy	Chalk River Valley Floor LCT sensitivity to solar PV energy
The rivers that meander along the chalk valley floors are the key physical features within this LCT and the introduction of significant vertical landscape elements would detract from these and also jar with the sheltered, secluded, small-scale of the landscape and with its unchanging, historic character. The upper sections of turbines could potentially appear above the ridge tops in views, which would have a significant impact on the perception of these valleys that presents exists in views across the open downlands from locations away from the immediate valley tops.	The predominant land use types are pastoral, including water meadows with historic value, and these would be sensitive to the introduction of solar energy. There may be some scope for smaller solar schemes to be located where they would not be widely perceived in the local landscape and would not appear out of scale, but the sharp, geometric forms of solar development are likely to clash with the historic, pastoral character of the valleys wherever they are sited, and any location immediately adjacent to a river would be likely to detract from its sinuous form.

Figure 11: example of LCT assessment text

7.7 For each LCA represented within the LCT a map is presented to show the LCA, together with its area in hectares[11] (**Figure 12**). This is followed by quotes and comments relating to susceptibility and value in the same format as for the LCT but with reference to the District Landscape Character Assessment (**Figure 13**).

[11] Calculation based on LCA boundary data provided by East Dorset District Council

Landscape character area: Lower Winterborne Valley (152 hectares)

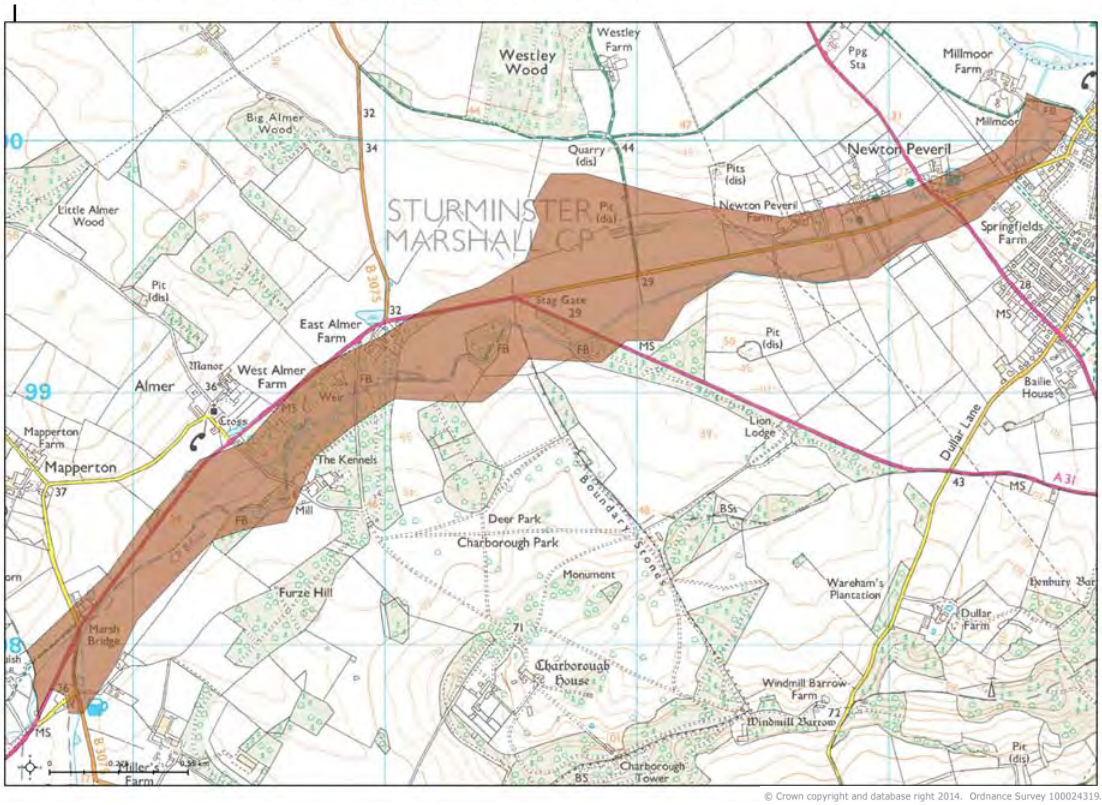


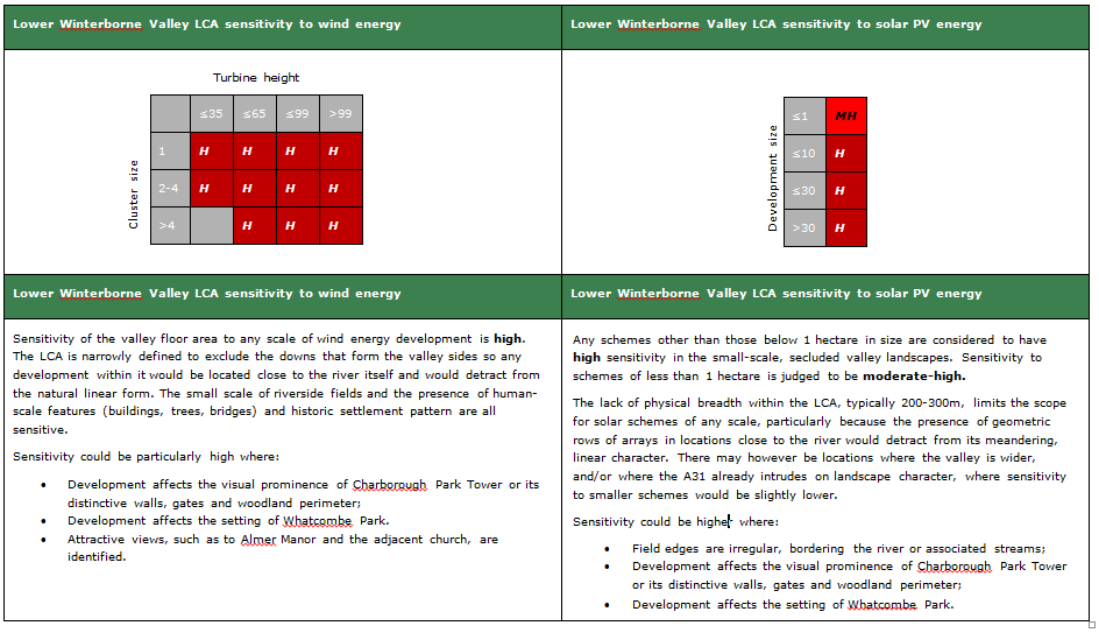
Figure 12: example of LCA map page

Lower Winterborne Valley LCA characteristics by susceptibility criteria	
Scale and complexity of landform: *"A narrow chalk stream corridor and valley sides defined in most places by a clear break in slope"* The lower reaches of the Winterborne Valley, east of Winterborne Kingston, are much shallower with no clear distinction between the valley floor and the surrounding Chalk Valley & Downland LCT.	**Scale and complexity of land use and field pattern:** *"Copses and hedgerows along the length of the valley contribute to a sense of containment"* (East Dorset LCA) *"The land is intensively farmed and the area is more pastoral than the adjoining arable chalk downland" (North Dorset LCA)* *"There are occasional groups of planted poplars and willows which, together with the naturally occurring tree groups, form characteristic linear features along the streamside" (North Dorset LCA)*
Visual exposure: *"The brick walls marking the boundary of the Charborough Park Estate form a striking feature in the views along part of the valley floor."* (East Dorset LCA) East of Winterborne Kingston there are few locations with either residential or public views down to the valley floor from the surrounding area, but further north the steeper valley sides afford more views down into the valley from ridge top roads.	**Development and activity:** *"The settlement pattern and road network follow the stream corridor to create a distinctive pattern... use of locally distinctive material such as brick and flint... presence of large country houses in big gardens with mature trees contributes to the character of the settlements on the valley floor"* (North Dorset LCA) *"Winterborne Whitechurch is the main settlement and a key feature on the valley floor at the junction with the A354."* (North Dorset LCA) *"The valley of the Winterborne has a long history of associated habitation, focused in three early settlements at Mapperton, West Almer and East Almer, all set at the edge or just to the north of the boundary of the valley gravel and the chalk"* (East Dorset LCA) *"The A31 trunk road, which at this point is a traditional single-carriageway road flanked with hedgerows and hedgerow trees, follows the valley of the River Winterborne, passing Almer to the north."* (East Dorset LCA)
Lower Winterborne Valley LCA value characteristics	
Most of theLower Winterborne Valley is designated at District level as part of the Stour Valley AGLV. *"The parkland landscape of Whatcombe Park is an important local feature..."* (North Dorset LCA) The walls, lodges and gateways to Charborough Park and the manor and church at Almer are noted as key features in the East Dorset LCA.	

Figure 13: example of LCA description page

7.8 Matrices are provided for each LCA to give, for each development typology, **ratings** of overall **sensitivity**, weighing up the importance of characteristics and associated susceptibility criteria for the LCT in general and the specific LCA in question and taking into consideration any aspects of

landscape value which would affect the judgement. Summaries are provided to explain the judgements and to note any **local characteristics** which might serve to increase or decrease the sensitivity from the rating provided for the LCA as a whole (**Figure 14**).



Lower Winterborne Valley LCA sensitivity to wind energy

Turbine height

Cluster size	≤35	≤65	≤99	>99
1	H	H	H	H
2-4	H	H	H	H
>4		H	H	H

Lower Winterborne Valley LCA sensitivity to solar PV energy

Development size	
≤1	MH
≤10	H
≤30	H
>30	H

Lower Winterborne Valley LCA sensitivity to wind energy

Sensitivity of the valley floor area to any scale of wind energy development is **high.** The LCA is narrowly defined to exclude the downs that form the valley sides so any development within it would be located close to the river itself and would detract from the natural linear form. The small scale of riverside fields and the presence of human-scale features (buildings, trees, bridges) and historic settlement pattern are all sensitive.

Sensitivity could be particularly high where:

- Development affects the visual prominence of Charborough Park Tower or its distinctive walls, gates and woodland perimeter;
- Development affects the setting of Whatcombe Park.
- Attractive views, such as to Almer Manor and the adjacent church, are identified.

Lower Winterborne Valley LCA sensitivity to solar PV energy

Any schemes other than those below 1 hectare in size are considered to have **high** sensitivity in the small-scale, secluded valley landscapes. Sensitivity to schemes of less than 1 hectare is judged to be **moderate-high.**

The lack of physical breadth within the LCA, typically 200-300m, limits the scope for solar schemes of any scale, particularly because the presence of geometric rows of arrays in locations close to the river would detract from its meandering, linear character. There may however be locations where the valley is wider, and/or where the A31 already intrudes on landscape character, where sensitivity to smaller schemes would be slightly lower.

Sensitivity could be higher where:

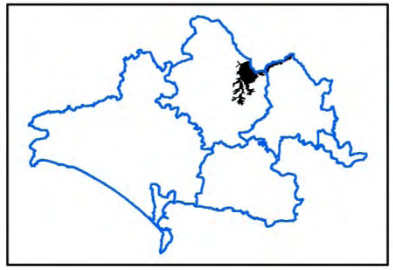
- Field edges are irregular, bordering the river or associated streams;
- Development affects the visual prominence of Charborough Park Tower or its distinctive walls, gates and woodland perimeter;
- Development affects the setting of Whatcombe Park.

Figure 14: example of LCA assessment page

7.9 Reference should be made to the published landscape character assessments to gain a fuller picture of characteristics and features of an area.

7.10 Sections 8 and 9 have maps to show sensitivity ratings across all the LCAs in the District. For wind power there is one map for each combination of cluster size and turbine height and for solar PV energy there is one map per size category.

Landscape character type: Wooded Chalk Downland



District boundary

AONB

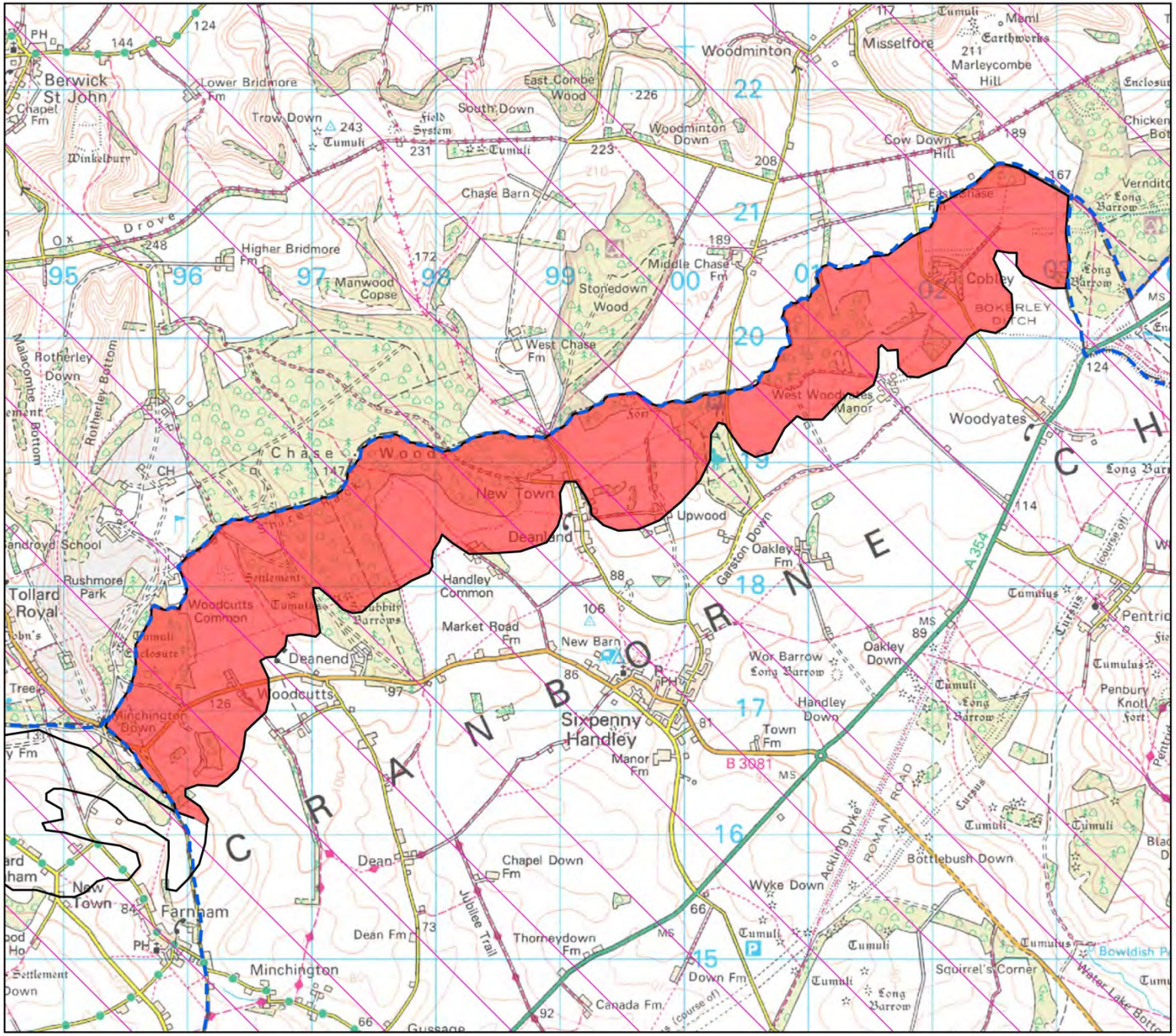
Area of Great Landscape Value

Dorset Landscape Character Type

6. Wooded Chalk Downland

East Dorset Landscape Character Area

6A - Chase Woods



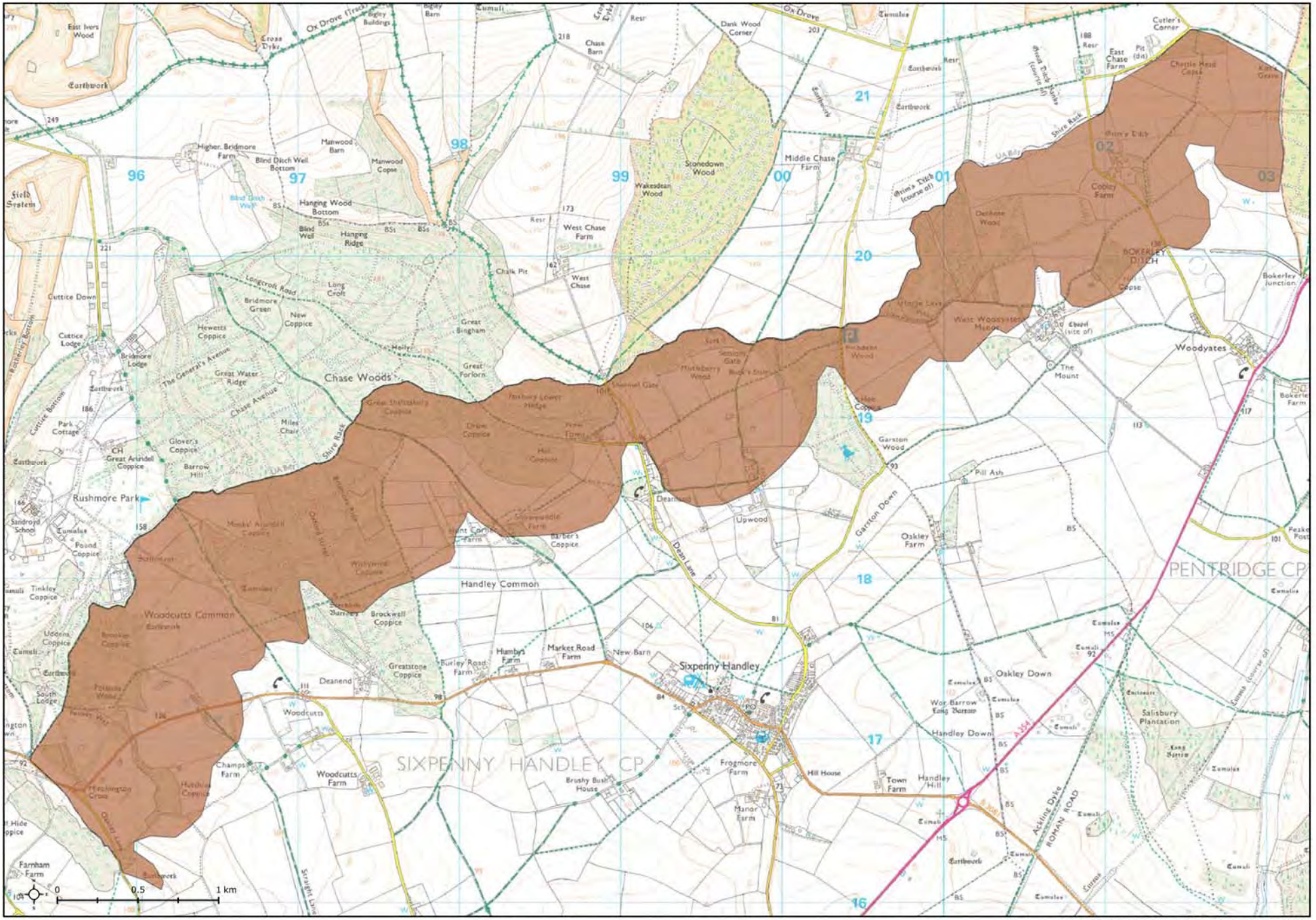
0 0.75 1.5 km

Wooded Chalk Downland LCT overview	
The Wooded Chalk Downland LCT lies adjacent to the Chalk Ridge Escarpment but only occurs to the north of the Stour, within Cranborne Chase. Most of the LCT area is in North Dorset, principally to the north of Stubhampton but also extending in narrower ridge top arms south towards Blandford. In East Dorset the LCT forms a narrow belt along the county boundary, continuing northwards up to the chalk escarpment in Wiltshire.	
Wooded Chalk Downland LCT characteristics by susceptibility criteria	
Scale and complexity of landform: *"…characteristic deeply eroded topography of steep chalk valleys, dry coombs, upstanding ridges and plateaus with open views."*	**Scale and complexity of land use and field pattern:** *"distinctive land cover mosaic of improved grassland, shelter belts, ancient woodland and open downland … with the landcover creating 'enclosed spaces' surrounded by trees"* *"Clipped hedgerows provide field boundaries to mostly medium to large irregularly shaped fields and to the generally straight roads and lanes which run across the area."*
Visual exposure: *"Panoramic views over adjacent escarpments and foothills."*	**Development and activity:** *"The area has been settled continuously from the Iron Age, with evidence of many prehistoric earthworks, but now there are few settlements with Ashmore being the only hilltop village in the area. The rest of the buildings, hamlets, farms and old lodges are disbursed throughout the area and are often linked via a dense network of bridleways and footpaths."*
Wooded Chalk Downland LCT value characteristics	
All of the Wooded Chalk Downland Landscape lies within the Cranborne Chase and West Wiltshire Downs AONB, which is valued for special qualities which include a distinctive landform, overlying woodland mosaic, a sense of history and remoteness and a tranquil, rural character. The principal Management Objective for the Wooded Chalk Downland LCT is *"to conserve the distinctive classical English landscape created by the dramatic chalk valleys, ridges and plateau, diverse woodland, copses, shelterbelts, avenues and parkland trees".* The Management Guidance Notes include the following: • *"Identify, protect and conserve the long ranging views especially from roads, Rights of Way and key viewpoints e.g. via Parish Action Plans, Village Design Statements and other Settlement Appraisals.* • *Conserve the distinctive character of the landscape and the long ranging views especially from roads, Rights of Way and key viewpoints e.g. by keeping built development off the ridge tops and exposed downland summits."* *"…a dramatic, distinctive and historic landscape … unique sense of place…"*	

"Many important archaeological sites such as burial mounds, cross dykes and earthworks…" *"The extensive ancient woodlands of Ashmore and Chase Woods and the managed estate landscape of Rushmore Park are all key features in the area."* (Rushmore Park is just across the border in Wiltshire, but is a distinctive element in the landscape affecting the Wooded Chalk Downland in nearby North and East Dorset).	
Wooded Chalk Downland LCT sensitivity to wind energy	**Wooded Chalk Downland LCT sensitivity to solar PV energy**
The dramatic landform, distinctive land cover and historical character of this LCT make it a highly valued landscape, which along with the chalk escarpment can be considered the heartland of the AONB, exhibiting many of the 'special qualities' on which the designation is based. Any development within this area can be considered sensitive, even where woodlands might provide screening from many viewpoints.	The dramatic landform, distinctive land cover and historical character of this LCT make it a highly valued landscape, which along with the chalk escarpment can be considered the heartland of the AONB, exhibiting many of the 'special qualities' on which the designation is based. Any development within this area can be considered sensitive, even where woodlands might provide screening from many viewpoints.

Landscape character area: Chase Woods

Area: 793 hectares



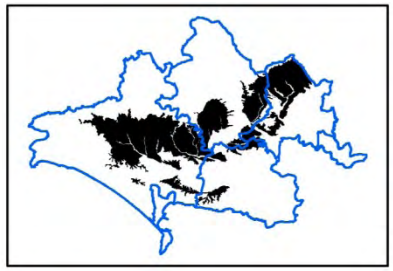
Chase Woods LCA characteristics by susceptibility criteria	
Scale and complexity of landform: *"Rolling landform, rising and steepening to the north"*	**Scale and complexity of land use and field pattern:** *"A belt of woods extends across the higher chalk downs from Vernditch Lodge (near Woodyates) in the east, to West Lodge (Iwerne Minster) in the west."* *"Woodland blocks on the rising ground enclosing open areas of common, small scattered settlements and farmsteads."*
Visual exposure: *"The influence of these woods when seen together is felt throughout the downland area within East Dorset, although only their southern extremities actually lie within the District boundary."*	**Development and activity:** *"The area retains much of its remote and quiet character."*

Chase Woods LCA value characteristics
The LCA is designated as part of the Cranborne Chase and West Wiltshire Downs AONB. *"Visually, the woods complement the open downland, both in appearance and function. This long association epitomises the Chase and accounts for its unique identity."* The area is described as an *"important historic environment"*. The following are identified as key features: • Chase Woods • Garston Wood Nature Reserve • Distinctive Estate-managed landscapes of Rushmore Park to the north-west of Minchington Down.

Chase Woods LCA sensitivity to wind energy	Chase Woods LCA sensitivity to solar PV energy
Turbine height (m) Cluster size ≤35 ≤65 ≤99 >99 1 H H H H 2-4 H H H H >4 H H H	Development size (ha) ≤1 MH ≤10 H ≤30 H >30 H

Chase Woods LCA sensitivity to wind energy	Chase Woods LCA sensitivity to solar PV energy
Sensitivity to all scales of wind energy development is **high**. The value attached to this LCA derives from a combination of landform, land use, visual exposure, historic character and lack of modern development. All of these characteristics are defined as 'special qualities' of the Cranborne Chase and West Wiltshire Downs AONB and would be sensitive to wind energy development.	Sensitivity to solar PV schemes of less than 1 hectare is **moderate-high** and sensitivity to larger schemes is **high**. The value attached to this LCA derives from a combination of landform, land use, visual exposure, historic character and lack of modern development. All of these characteristics are defined as 'special qualities' of the Cranborne Chase and West Wiltshire Downs AONB and would be sensitive to solar PV development. There may be locations with more even terrain where a small development would to an extent be screened by woodland blocks, but any scale of development would be out of character with the historic landscape. Sensitivity could by higher where: • Location is prominent in views from public rights of way; • Location has an adverse effect on the setting of a historic landscape feature or parkland (e.g. Rushmore).

Landscape character type: Chalk Valley & Downland



District boundary

AONB

Area of Great Landscape Value

Dorset Landscape Character Type

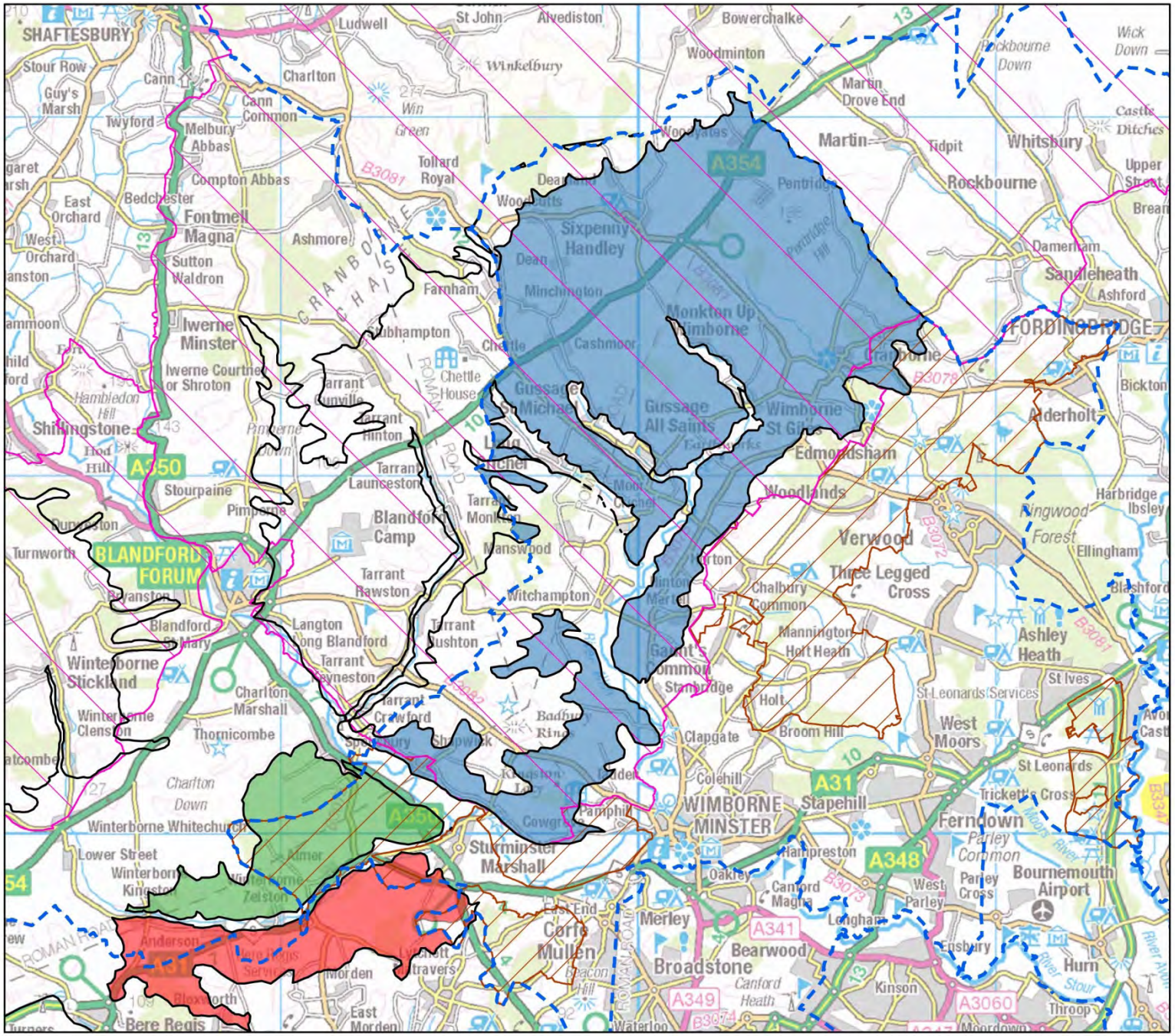
11. Chalk Valley & Downland

East Dorset Landscape Character Area

11A - Bloxworth/Charborough Downs

11B - East Dorset Downs

11C - South Blandford Downs



Chalk Valley & Downland LCT overview

The Chalk Valley and Downland LCT occurs extensively across Dorset, forming a wide belt that runs north east to south west through the centre of the county. The East Dorset Downs comprise almost half of the District, mostly as Chalk Valley and Downland, but approximately a quarter of the LCA, comprising most of the area to the south west of the Allen and Crichel valleys, is categorised at the County LCT level as Open Chalk Downland. The East Dorset Downs end at the Lower Stour valley but the downland continues beyond the valley as the Bloxworth/Charborough Downs (of which only three small areas are in East Dorset District) and the South Blandford Downs (a small area of which is also categorised as Open Chalk Downland). The LCT is bounded by higher, wooded terrain to the north (Wooded Chalk Downland LCT and the Chalk Ridge/Escarpment beyond) and east (Rolling Wooded Pasture LCT).

The Chalk Valley and Downland LCT description includes references to the valley floors which cut northwards into the downs. Whilst these are intimately associated with the surrounding downlands their character is distinctly different so this assessment follows the lead of the District landscape character assessment and treats them as a separate LCT (Chalk Valley River Floor).

There is little specific reference to the South Blandford Downs or the Bloxworth Downs in the East Dorset District Assessment, which considers them along with the East Dorset Downs as one LCA. Both LCAs span other Districts, and are assessed as whole entities regardless of District boundaries.

Chalk Valley & Downland LCT characteristics by susceptibility criteria

Scale and complexity of landform:

"Extensive and uniform area of chalk covering a large part of the county"…" The whole area is undulating with an inverted saucer shaped profile and a gentle dip slope towards the Frome valley and Poole Basin linking into the escarpment landscape along its remaining edges."

Within the broader chalk landscape there are distinctive valley forms, ranging from shallower coombes to more incised chalk river valleys (the valley floors are assessed as a separate LCT), but landform scale is typically large.

Scale and complexity of land use and field pattern:

"Large arable fields subdivided by low, thin and straight hedges"

Visual exposure:

"…has a dominant visual influence being more extensive and generally more elevated than other landscape types in the county with open views from elevated positions."

Development and activity:

The area is sparsely settled, with most villages being located in the chalk river valleys and larger settlements (e.g. Blandford and Wimborne) located in the wider river valleys beyond the margins of the LCT. The area retains a strong agricultural character and a sense of remoteness and tranquillity.

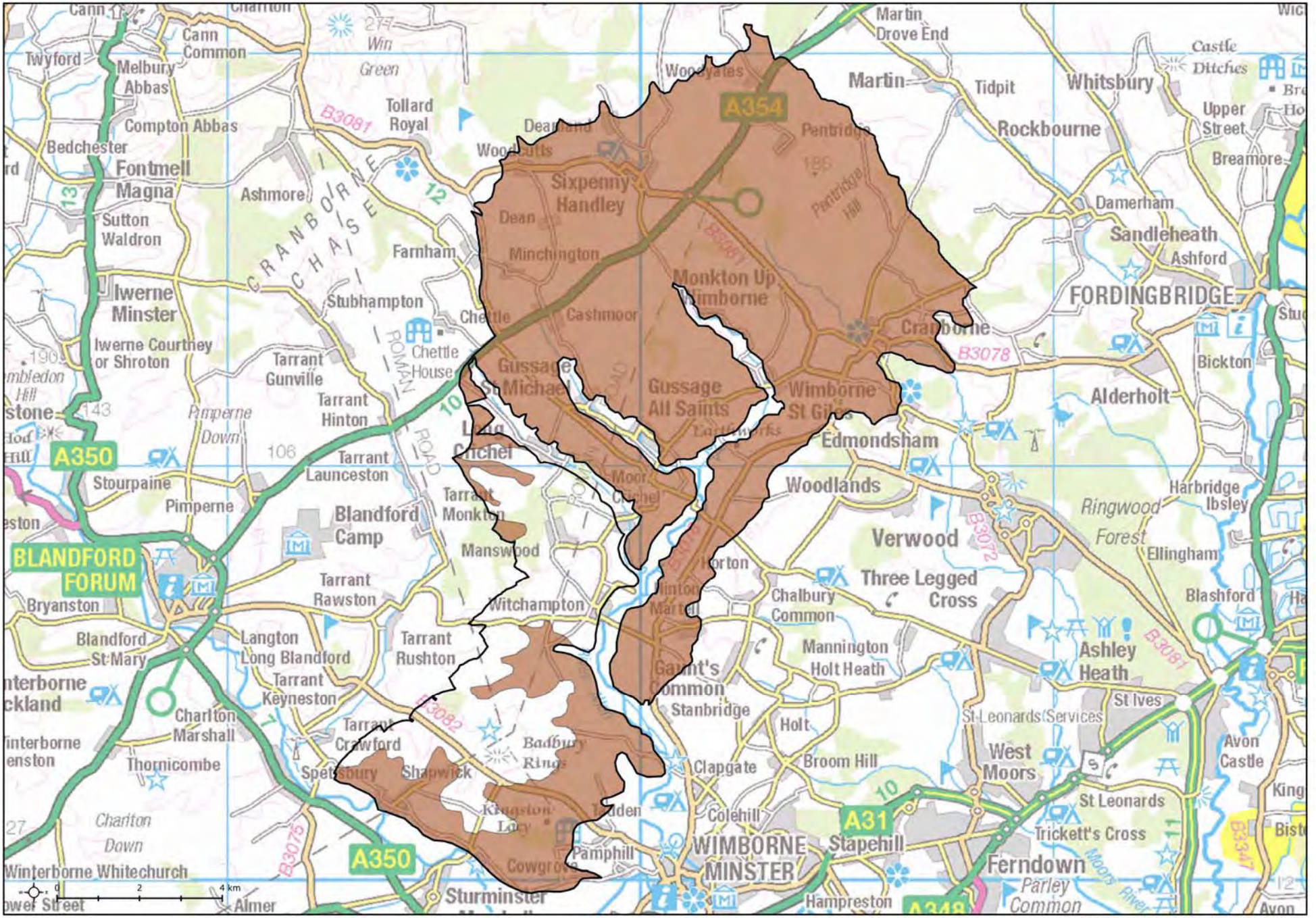
Chalk Valley & Downland LCT value characteristics

The principal management objective for Chalk Valley & Downland LCT is to conserve the distinct landscapes. To a large extent within the District, and the County as a whole, chalk landscapes are in AONBs, although within East Dorset the South Blandford and Bloxworth Chalk Valley & Downland LCAs are only locally designated, as part of the Stour Valley AGLV. The Cranborne Chase and West Wiltshire Downs AONB, which includes the East Dorset Downs, is valued for special qualities which include a distinctive landform, simplicity and openness, a sense of history and remoteness and a tranquil, rural character.

Chalk Valley & Downland LCT sensitivity to wind energy	Chalk Valley & Downland LCT sensitivity to solar PV energy
The chalk downlands are an undulating landscape which in topographical terms can typically be considered moderately sensitive to wind energy development, and the large scale and openness of the landscape suggest a lower susceptibility to wind energy development. Visibility within the LCT is limited in valley locations but higher downs offer extensive views so development would typically be visible over a wide area. Adjoining LCTs, most notably the Chalk Ridge/Escarpment but also other chalkland LCTs and Valley Pasture, have high inter-visibility with many downland areas and there is a high potential for distinctive horizon lines to be interrupted, distorting the sense of balance in what is currently a very open landscape with few features to break distant skylines. In terms of development and human influence this is a rural landscape with little modern intrusion, so sensitivity is relatively high. The combination of landform, openness and arable cultivation create a distinctive landscape which is valued for its scenic and perceptual qualities. A large scale landscape can be considered more able to accommodate strong features such as wind turbines than a more human-scale environment, but in all other respects the distinctive character of the Chalk Valley and Downland LCT, the value of which is recognised by the extent of AONB and AGLV coverage, can be considered highly sensitive to wind turbines. Its distinctive visual lines and uniformity deriving from an absence of visual clutter could be compromised by the introduction of high vertical structures with movement. The positioning of turbines in locations on valley sides would raise the prospect of 'disembodied' turbine blades appearing in what are currently very open views from higher ground, in which valleys beyond the immediate vicinity are only barely perceptible (contributing to the sense of remoteness and large scale that are 'special qualities' of the AONB). Their scale would also be overbearing in the context of the smaller scale chalk valley landscapes.	The chalk downlands are an undulating landscape which in topographical terms can typically be considered moderately sensitive to solar energy development, but the large scale and openness of the landscape suggest a higher susceptibility to solar PV energy development. Visibility within the LCT is limited in valley locations but higher downs with large, open areas and only low hedging mean that development would typically be visible over a wide area. Adjoining LCTs, most notably the Chalk Ridge/Escarpment but also other chalkland LCTs and Valley Pasture, have high inter-visibility with many downland areas. In terms of development and human influence this is a rural landscape with little modern intrusion, so sensitivity is relatively high. The combination of landform, openness and arable cultivation create a distinctive and uniform landscape which is valued, and designated as an AONB, for its scenic and perceptual qualities. The general absence of modern development and frequency of ancient monuments add a sense of 'time depth'. Sensitivity to solar energy developments in this LCT would typically be high, adding uncharacteristic shapes and textures to an uncluttered landscape.

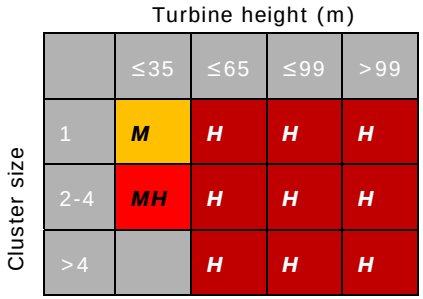
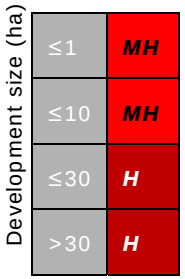
Landscape character area: East Dorset Downs (part)

Area: 11264 hectares



East Dorset Downs LCA characteristics by susceptibility criteria	
Scale and complexity of landform: "*an open, low-profile, undulating, and smooth landscape*"… "*This area includes some of the most dramatic parts of the Chase within East Dorset District.*" *"The area comprises a plateau that dips gently from north to south. Within the north eastern section of the downland landscape are chalk stream valleys that divide the landform into a series of parallel north-westerly, south-easterly ridges … thus giving this part of the downland landscape a characteristic 'grain'"*	**Scale and complexity of land use and field pattern:** *"A largely uncluttered landscape of simple shapes, where line tends to be as important as colour"…"Tree-cover within the area is sparse, except for a number of fairly small and self-contained woods"… "Most roads and tracks in the area tend to be straight."* *"The landscape south of the Avenue is characterised by a rectangular field pattern extending towards the Stour. This 'grain' is not evident further north where fields are more irregular. Here, field sizes tend to be larger to the west and smaller towards the River Allen."* *"The colours seen within the chalkland landscape form an important aspect of its character; they reflect the manner in which the landscape is managed as much as the seasonal differences."*
Visual exposure: *"Long distance views across and beyond the District boundary from downland hills and ridges"* *"Hedges tend to be kept low and enable long distance views from the road."* *"uninterrupted panoramic views across the landscape"*	**Development and activity:** *"…open, empty character…"*

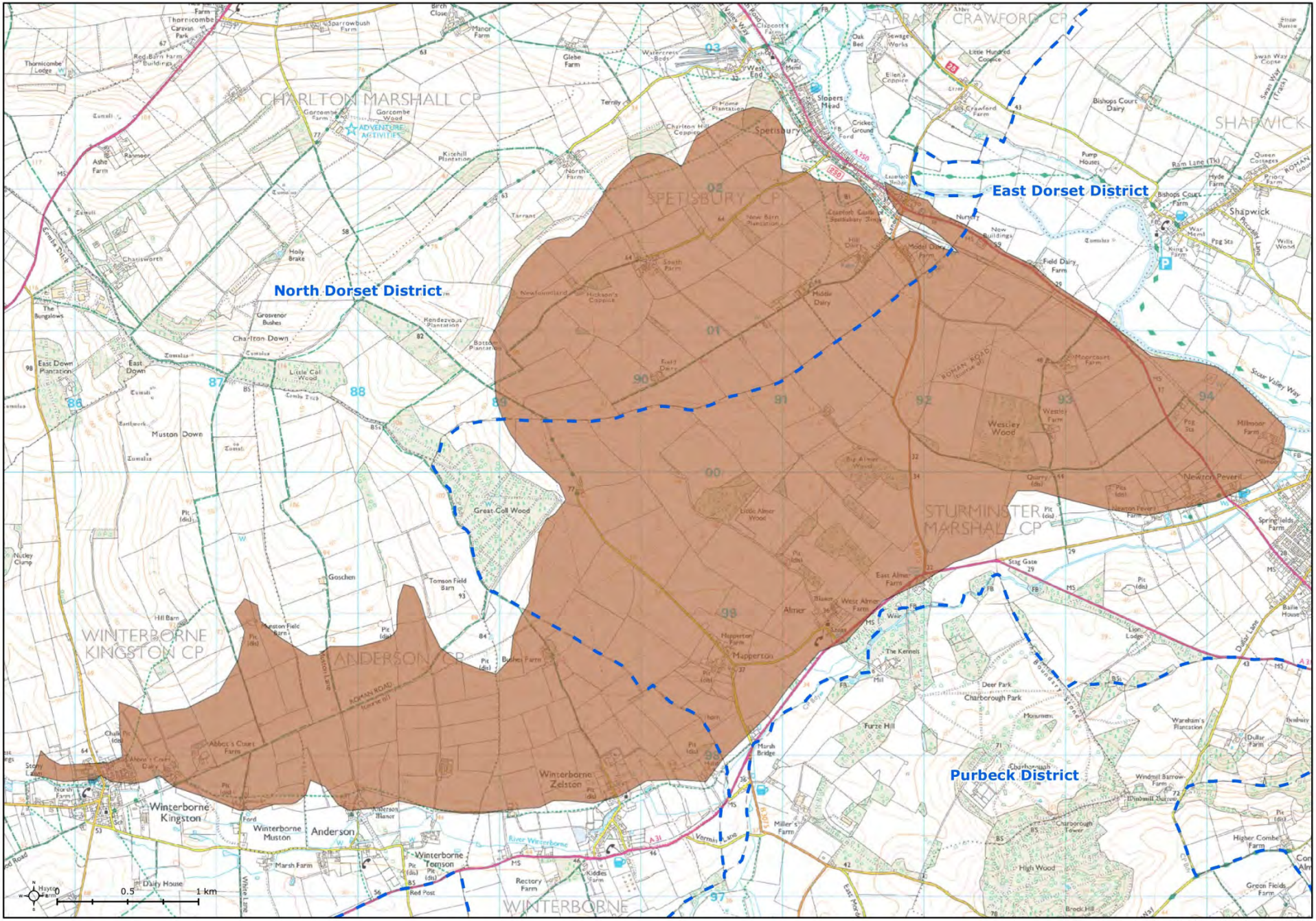
East Dorset Downs LCA value characteristics
Almost all of the East Dorset Downs area, including the river valleys, lies within the Cranborne Chase and West Wiltshire Downs AONB (a small area to the east of Cranborne is outside the AONB but designated as part of the Woodlands AGLV). There are many significant archaeological sites in the area, including hilltop earthworks and burial mounds. There are three parkland estates in the District which are noted for their distinctive landscapes: Kingston Lacy, Crichel and Wimborne St Giles (the latter is bordered on one side by a linear plantation called The Drive).

East Dorset Downs LCA sensitivity to wind energy	East Dorset Downs LCA sensitivity to solar PV energy
	

East Dorset Downs LCA sensitivity to wind energy	East Dorset Downs LCA sensitivity to solar PV energy
Sensitivity to single turbines less than 35m high is judged to be **moderate** and sensitivity to groups of 2-4 turbines is **moderate-high**. Sensitivity to all other scales of development is **high**. The "simple and elemental character of the open downland – wide expansive skies, dominant skylines, dramatic escarpments and panoramic views", and its tranquil, rural nature, are key 'special characteristics' of the AONB which could be adversely affected by wind energy development. There is some potential for small turbines to be located in positions where their visual impact would be limited by terrain, and where positioning in association with an existing landscape feature, such as a woodland block or a complex of farm buildings, would reduce the 'cluttering' effect on the generally open landscape that they would otherwise have. In general however, the "grand and dramatic" landscape scale and intensity of character, which are also noted as 'special qualities' of the AONB, would be diminished by the presence of wind turbines. Sensitivity could be higher where: • Location is prominent within long views; • Location is in the proximity of visible archaeological features, the Beech Avenue, The Drive Plantation or close enough to parklands such as Kingston Lacy or Crichel to intrude on their wooded settings; • The landform is particularly distinctive, creating a strong skyline of ridges and summits – e.g. around Penbury Knoll in the north eastern part of the LCA. • The location is on a hillside above a Chalk River Valley Floor LCT, where its height will be emphasised and it will be visible from, or in the context of, historic settlements.	Sensitivity to solar farms less than 10 hectares in area is **moderate-high** and sensitivity to larger developments is **high**. The "simple and elemental character of the open downland" and its tranquil, rural nature, are key 'special characteristics' of the AONB which could be adversely affected by solar PV development. Even a small solar installation is likely to appear incongruous on chalk downland, with arrays of solar panels contrasting sharply with the textures and curving lines associated with undulating farmed land separated by clipped hedges, to the detriment of the "grand and dramatic" landscape scale which is another AONB 'special quality', but there are some locations where fields are smaller and the landform more even. Development which could be located in the immediate proximity of a large farm complex, with modern barns, would be less sensitive than development in a more isolated position. Sensitivity could be higher where: • Location is prominent within long views; • Location is in the proximity of visible archaeological features, the Beech Avenue, The Drive Plantation or close enough to parklands such as Kingston Lacy or Crichel to intrude on their wooded settings; • The landform is particularly undulating; • Area has a strong historic medieval pattern; The location is on a hillside above a Chalk River Valley Floor LCT, where its height will be emphasised and it will be visible from, or in the context of, historic settlements.

Landscape character area: South Blandford Downs (part)

Area (within East Dorset District): 909 hectares

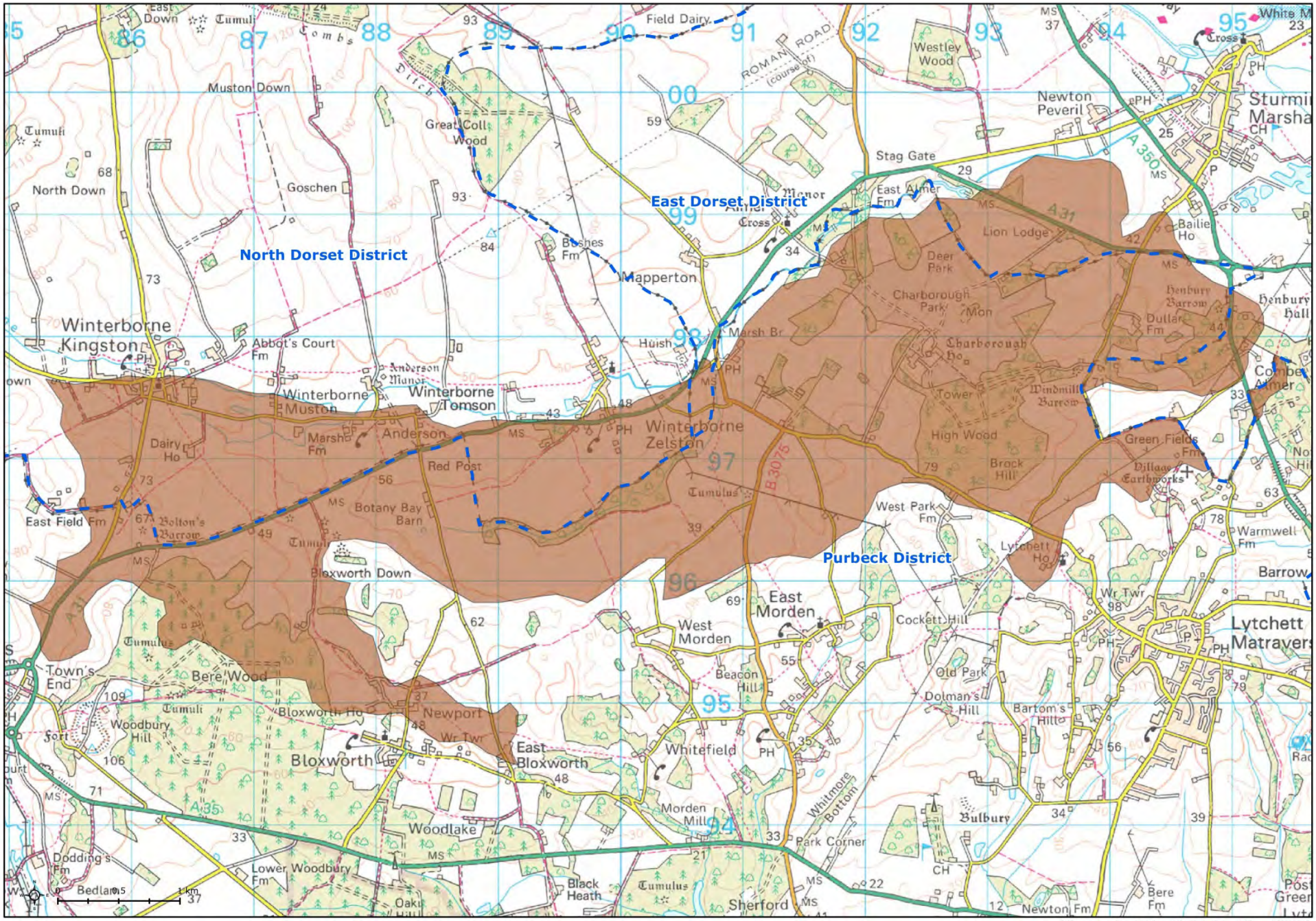


South Blandford Downs LCA characteristics by susceptibility criteria	
Scale and complexity of landform: The Chalk Valley & Downland LCT occurs in the southern part of the South Blandford Downs and consists of gently undulating downlands sloping down towards the Stour and Winterborne. The ridge top and steeper dry valleys are defined as the Open Chalk Downland LCT.	**Scale and complexity of land use and field pattern:** *"…intensively farmed with large to medium sized geometrical shaped fields bounded by low, straight clipped hedges"* *"…several small, geometric-shaped plantation woodland blocks which dot the landscape and define the horizon in many places"* *"There are widely spaced out, straight roads lined by low clipped hedgerows…"* Great Coll Wood, in the adjacent Open Chalk Downland LCT, is a distinctive broad, flat hill top feature.
Visual exposure: *"…an expansive landscape with some open views to the horizon"* Great Coll Wood and Muston Down form a relatively even skyline in views from the south of the Winterborne Valley, and views from the Winterborne and Stour valleys are foreshortened by the rising terrain. The principal views are from public rights of way on higher ground to the north and from the Spetisbury Rings Iron Age hill fort, and from further afield there are views from the downland to the north of the Stour, most notably from Badbury Rings, but the skyline is not particularly distinctive.	**Development and activity:** *"…open, empty character…"* The hamlets of Mapperton, Almer and Newton Peveril lie close to the Winterborne Valley near the southern edge of the LCA but otherwise the only habitation is several isolated farms. There are a number of villages in the valleys just beyond the LCA boundary, with Charlton Marshall and Spetisbury to the east and Winterborne villages to the south.
South Blandford Downs LCA value characteristics	
The South Blandford Downs are designated within East Dorset as part of the Stour Valley AGLV. The area lies beyond the boundaries of the AONBs, although it forms part of the setting of the Cranborne Chase & West Wiltshire AONB just across the Stour Valley to the north east. Spetisbury Rings is a noted ancient monument with extensive views westwards across the South Blandford Downs.	

South Blandford Downs LCA sensitivity to wind energy	South Blandford Downs LCA sensitivity to solar PV energy
Turbine height (m) Cluster size ≤35 ≤65 ≤99 >99 1 M MH H H 2-4 MH H H H >4 H H H	Development size (ha) ≤1 LM ≤10 LM ≤30 M >30 MH
South Blandford Downs LCA sensitivity to wind energy	**South Blandford Downs LCA sensitivity to solar PV energy**
Sensitivity to single turbines less than 35m high is **moderate**. Sensitivity to 2-4 turbines less than 35m high or single turbines 36-65m high is **moderate-high.** Sensitivity to all other scales of development is **high**. Whilst the typical characteristics of chalk downland are largely present in this part of the South Blandford Downs, the landform is less undulating than is usually the case for the LCT. Small turbines located in association with the isolated farms and numerous woodland blocks would be less intrusive than in more open locations, but larger turbines would be likely to appear out of scale with adjacent buildings and would potentially be visible from locations to the north of the Muston Down/Great Coll ridge. Sensitivity could be higher where: • Location is prominent in views from Spetisbury Rings or Badbury Rings; • Site is prominent from the floor of the Winterborne Valley, in particular from settlements; • Turbine is visible above the ridge in views from the north; • Location detracts from prominence of the tower at Charborough Park in views. • The area is in the setting of the Cranborne Chase and West Wiltshire Downs AONB	Sensitivity to solar PV schemes of less than 10 hectares is **low-moderate**. Sensitivity to solar PV schemes of 10-30 hectares is **moderate**. Sensitivity to larger schemes is **moderate-high**. Whilst the typical characteristics of chalk downland are largely present in this part of the South Blandford Downs, the LCA is generally less visually sensitive than is the case in Chalk Valley & Downland LCAs which are closer to the escarpment, or associated with narrow chalk river valleys. The lie of the land is less undulating than many downland areas and woodland blocks create a number of locations which would not be highly prominent in views. Sensitivity could be higher where: • Location is prominent in views from Spetisbury Rings or Badbury Rings; • Scale of development is not consistent with either field size of proposed site or surrounding field sizes; • Location is on exposed higher ground close to Great Coll Wood.

Landscape character area: Bloxworth / Charborough Downs

Area (within East Dorset District): 177 hectares



Bloxworth / Charborough Downs LCA characteristics by susceptibility criteria

Scale and complexity of landform:

"A varied character area but largely dominated by open chalk upland which gradually slopes down to the Lower Winterborne Valley along its northern fringes"

Scale and complexity of land use and field pattern:

"…intensively farmed regular sized large fields are subdivided by thin and weak hedgerows with the occasional hedgerow tree characteristic of a 'planned enclosure' landscape"

"Individual mature parkland trees"…"Old estate lodges, gateposts and walls abutting lanes are key features in parts of this area"

"Interconnected and enclosing woodland blocks along high ground"

Visual exposure:

"There are open views across the Winterborne valley from elevated positions."

There are views from lower-hedged stretches of the A31 into much of the area, with middle-distance views to the chalk downs to the north of the Winterborne Valley (although not to the more dramatic higher ridges further north). There is a shorter horizon to the south, with wooded high ground in the western part of the LCA.

Development and activity:

"The area has few settlements with Winterborne Kingston, Tomson, Anderson, Zelston and Muston (all part of the linear Winterborne 'family' of villages/hamlets) being found along the edges of the area abutting the Winterborne valley and following the straight valley floor road network. There are a few isolated farmsteads in the area and the A31 cuts through its north edges creating in particular an audible impact on the character area."

Bloxworth / Charborough Downs LCA value characteristics

There are no landscape designations relating to this LCA in North Dorset or Purbeck, although within East Dorset the LCA is part of the Stour Valley AGLV.The estate parkland landscape of Charborough Park is a key feature influencing the Purbeck and East Dorset parts of the LCA. The LCA includes the northern part of Bere Woods, which is a prominent skyline feature to the south west.

Bloxworth / Charborough Downs LCA sensitivity to wind energy

Turbine height (m)

Cluster size	≤35	≤65	≤99	>99
1	M	MH	H	H
2-4	MH	H	H	H
>4		H	H	H

Bloxworth / Charborough Downs LCA sensitivity to solar PV energy

Development size (ha)	
≤1	LM
≤10	M
≤30	M
>30	MH

Bloxworth/Charborough Downs LCA sensitivity to wind energy	Bloxworth/Charborough Downs LCA sensitivity to solar PV energy
Sensitivity to single turbines less than 35m high is **moderate**. Sensitivity to 2-4 turbines less than 35m high, or single turbines 36-65m high, is **moderate-high**. Sensitivity to all other scales of development is **high.** The busy A31 makes the lower, northern part of area less tranquil than most Chalk Valley & Downland LCAs, and the landform is less distinctive than that which is associated with the narrower north-south stretches of chalk river valley further north, but proximity to the lower Winterborne villages, with their smaller-scale valley floor landscape, raises sensitivity to wind turbines. Sensitivity could be higher where: • Site is prominent from the floor of the Winterborne Valley, in particular from settlements; • Location detracts from prominence of the tower at Charborough Park in views, or the historic character of the park's setting.	Sensitivity to solar farms of less than 1 hectare is **low-moderate,** sensitivity to solar farms of less than 30 hectares is **moderate** and sensitivity to larger development is **moderate-high.** This LCA forms only the lower slopes of the downs in the broad lower part of the Winterborne Valley, so topographically (disregarding technical issues relating to availability of sunlight on north-facing slopes) it is more suitable for solar PV installations than many downland LCAs, and the geometric, arable fields are also of relatively low sensitivity. The busy A31 makes the lower, northern part of area less tranquil than most Chalk Valley & Downland LCAs. Sensitivity could be higher where: • Site is prominent from the floor of the Winterborne Valley, in particular from settlements; • Location affects the historic character of Charborough Park; • Fields shapes are irregular.