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**Natural  
Resources  
Wales**

# Consultation Draft

## **Landscape Sensitivity and Capacity**

in relation to on-shore wind and solar photo-voltaic developments:  
**An assessment approach for Wales**

August 2018



# Landscape Sensitivity and Capacity Assessment in relation to on-shore wind and solar photo-voltaic developments

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## 1 Introduction

### 1.1 What this guidance is about

This is planning practice guidance on **Landscape Sensitivity and Capacity Assessment (LSCA)** to inform Local Development Plans, including Renewable Energy Assessments, as part of the Welsh Government's Renewable Energy Toolkit<sup>1</sup>. It is specifically applied to **onshore wind and solar photo-voltaic (solar PV)** development types but may be adapted for others.

### 1.2 Who this guidance is aimed at

It is to assist Local Planning Authority officers who would commission and then use the outputs from LSCA. It includes advice on commissioning, presenting and using LSCA. Carrying out a LSCA is a specialist task for a Chartered Landscape Architect with appropriate experience, and more detailed advice on carrying out LSCA is offered in Annex 1.

### 1.3 What is LSCA?

Landscape Sensitivity and Capacity Assessment has become an important way of using an understanding of landscape character to inform the management of landscape change. **Landscape Sensitivity Assessment** considers the ability of a landscape to accommodate a type and scale of development, without changing landscape character. **Landscape capacity assessment** further considers this ability by taking into account landscape character change.

### 1.4 How LSCA is used

Planning authorities should use LSCA to refine the renewable energy opportunities identified by their Renewable Energy Assessments (REA). Overlaying the REA and LSCA mapping will allow the locations identified by the REA to be constrained and refined in terms of landscape sensitivity and landscape capacity. The combined outputs of REAs and LSCAs should be used to inform targets and spatial policies for renewable and low carbon energy, and identify the most appropriate locations for these technologies in development plans.

LSCA also forms an evidence base to inform the preparation of place-specific landscape siting and design guidance, in relation to the types and scales of development being considered. While developers would be informed by resulting spatial policy objectives and siting and design guidance, they may still find the LSCA useful to inform their site search stage.

### 1.5 Proportionality

LSCA must strike a balance between having enough detail to make the assessment robust enough to withstand close scrutiny at Public Inquiry, while not making it so complex that it is not effectively used. Assessors do need to reflect complexity and nuance, and resist pressures to over-simplify issues. Getting this balance right is a challenge, mindful that in society it is often the simpler messages that gain the wider understanding, acceptance and sway in decision-making. There is an onus therefore on assessors to present suitable interpretation and summary as well as recording the necessary detail.

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<sup>1</sup> Welsh Government. 2015. Practice Guidance: Planning for renewable and low carbon energy – a toolkit for planners. [On-line]. <https://gov.wales/topics/planning/policy/guidanceandleaflets/toolkit-for-planners/?lang=en> [Accessed 28 June 2018].

### 1.6 Relationship to Landscape and Visual Impact Assessment

LSCA is not a tool intended to apply directly to assess the landscape and visual effects of individual development proposals. Instead, the well-established and related process of Landscape and Visual Impact Assessment<sup>2</sup> should be used. Figure 1 distinguishes the difference in purpose.

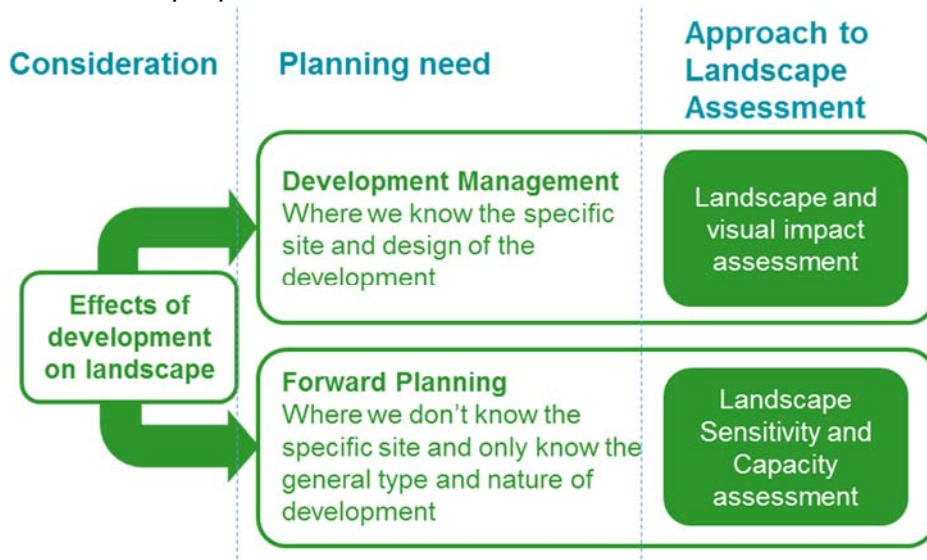


Figure 1: The difference in purpose between LSCA and LVIA.

### 1.7 Past assessments

There is no implication that past assessments that vary from the LSCA approach set out in this guidance are invalid, and many of these remain as useful evidence and understanding to inform spatial planning. *Past guidance and differences in terminology are explained in Annex 1: Appendix 2 and 3.*

### 1.8 Document structure

The process for carrying out a LSCA is detailed in the separate Annex 1 document, enabling this (parent) document to provide the context, summary and landscape principles.

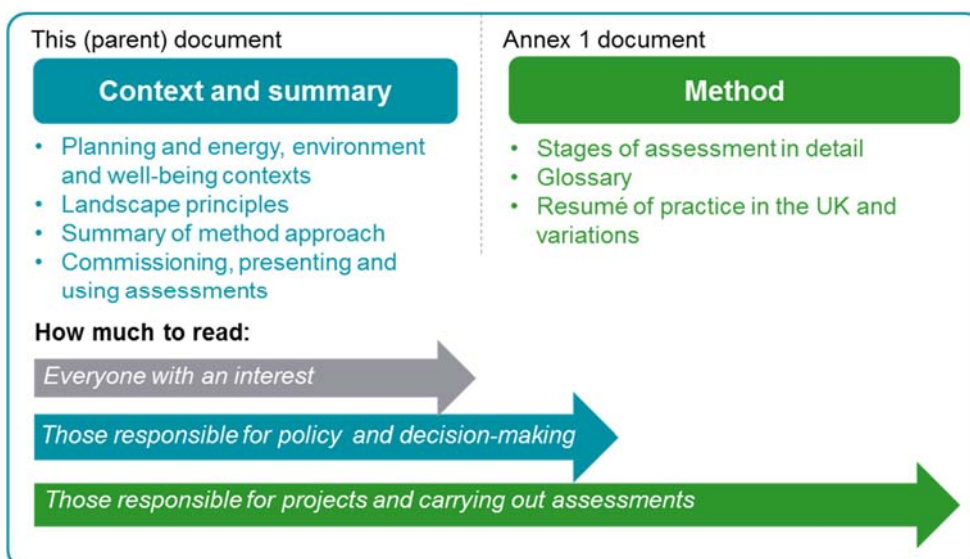


Figure 2: The relationship between this parent document and the Annex 1 document.

<sup>2</sup> Landscape Institute and Institute of Environmental Management and Assessment. 2013. Guidelines for Landscape and Visual Impact Assessment. [Not on-line]. Available to purchase: <https://www.landscapeinstitute.org/product/guidelines-for-landscape-and-visual-impact-assessment/>

## 2 Planning and Energy context

### 2.1 Planning

The most important decision the planning system makes is to ensure the right developments are built in the right places. **Planning Policy Wales (PPW)**<sup>3</sup> sets the direction for this and emphasises place-making. Character-based assessments can locate and recognise the distinct natural and cultural identities of places and therefore play an important role in place-making. Relevant supporting technical guidance, TAN8 Renewable Energy and TAN 12<sup>4</sup> Design, refer to character. TAN 12 recognises the need to appraise context in delivering good design, and to highlight distinctive patterns of development or landscape where the intention will be to sustain character. It states that “*undertaking strategic landscape assessment at the outset of the design process should help to define the capacity of the natural and historic environment to absorb development*”. The LSCA process does this at a strategic planning scale.

### 2.2 Energy

The **Environment (Wales) Act 2016**<sup>5</sup> sets a decarbonisation framework for Wales with a minimum of 80% reduction by 2050 and a supporting carbon budgeting framework. 42% of Wales’ emissions came from the energy supply sector in 2016. Delivering low carbon energy therefore forms an important element of delivering Wales’s decarbonisation targets. In September 2017 Welsh Government set an ambitious target for 70% of consumption in Wales to be met by renewable sources by 2030. In 2016 Wales had achieved 43% of electricity consumption from renewable sources. All this means changing the way that energy is currently generated, with more renewable energy developments from sources such as wind and solar.

### 2.3 Spatial Planning for energy

**TAN 8**<sup>6</sup> provides Planning guidance on land use in relation to renewable energy. It identifies Strategic Search Areas (SSAs) where wind farm developments should be *concentrated*, resulting in a spatial policy for landscape as summarised in Figure 3.




	Area	Policy objective (summarised)
	National Parks and Areas of Outstanding Natural Beauty	no change in <i>landscape character</i> from wind turbines
	Not within the other two categories (i.e. not red or green areas)	no significant change to <i>landscape character</i> from wind turbines
	Within (and immediately adjacent to) Strategic Search Areas (SSA)	accept significant change to <i>landscape character</i> from wind turbines

Figure 3: TAN 8, a summary of its spatial policy objectives for landscape in Wales

<sup>3</sup> Welsh Government. 2018. Planning Policy Wales. Edition 10 (draft). [On-line]. [https://beta.gov.wales/sites/default/files/consultations/2018-02/ppw-restructure-draft-ppw\\_en.pdf](https://beta.gov.wales/sites/default/files/consultations/2018-02/ppw-restructure-draft-ppw_en.pdf) [Accessed 29 June 2018].

<sup>4</sup> Welsh Government. 2016. Planning Policy Wales. Technical Advice Note 12. Design. [on-line] <http://gov.wales/topics/planning/policy/tans/tan12/?lang=en> [accessed 21 March 2017]

<sup>5</sup> Welsh Government. 2016. Environment (Wales) Act. [Online] <http://gov.wales/topics/environmentcountryside/consmanagement/natural-resources-management/environment-act/?lang=en> [Accessed 24 August 2017]

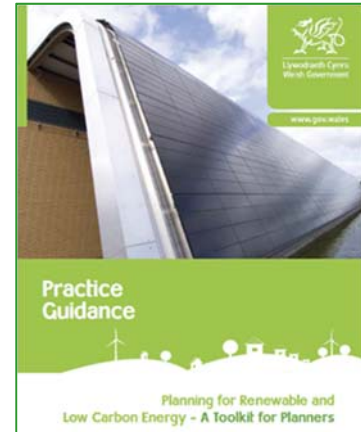
<sup>6</sup> Welsh Government. 2005. Renewable Energy. Technical Advice Note (TAN) 8. [On-line]. <https://gov.wales/topics/planning/policy/tans/tan8/?lang=en> [Accessed 29 June 2018].

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SSAs are not the *only* locations for renewable energy, and other types such as solar have different location requirements. In 2016, the Welsh Government updated their practice guidance '**Planning for Renewable and Low Carbon Energy – A Toolkit for Planners**'<sup>7</sup> to guide Local Authority policy planners on how to carry out **Renewable Energy Assessments (REAs)**. The outcomes of the REA can be used to develop renewable and low carbon energy spatial policies in their Local Development Plans (LDPs).

The toolkit advises that Local Authorities refine the results of their REAs by commissioning a '*Landscape Sensitivity Assessment*' prior to allocating or identifying areas in their LDPs to ensure the right spatial policy framework is set for delivering decarbonisation targets, as well as ensuring that projects are taken forward in accordance with principles for appropriate siting and design.

*The toolkit makes specific reference to landscape sensitivity assessment in paras. E4.3 (p94); 'P3 (p120) and for wind 'Sheet B' (p144) and for solar PV 'Sheet K' (p194).*



The toolkit references to landscape sensitivity assessment should be taken as synonymous with LSCA as described in this guidance.

### 3 Environment and Well-being context

The Welsh Government's **Natural Resources Policy 2017 (NRP)**<sup>8</sup> interprets the objectives and principles for the sustainable management of natural resources as defined in the Environment (Wales) Act 2016. Achieving the priorities and opportunities includes building resilience, managing for multiple benefits, managing the pressures and threats, addressing causes and providing long term, preventative solutions, and adopting nature-based solutions and positive responses to our key societal needs. The NRP states that (p25) "*Landscapes are a vital part of both place-based and nature-based approaches. All places have distinctive qualities, opportunities and functions*". The NRP highlights the challenge in retaining and enhancing Wales's **distinctive character**, which is recognised at a landscape-scale, as a (p25) "*central reason why visitors choose to holiday in Wales*", to "*contribute to the wider aims to improve the well-being and health of the nation*" and to "*consider how to use its characteristics for growing tourism sustainably*".

Key evidence is NRW's **State of Natural Resources Report (SoNaRR)**<sup>9</sup>, which draws on landscape evidence such as **LANDMAP**<sup>10</sup>, which highlights recent trends in landscape change, as illustrated in Figure 4.

<sup>7</sup> Welsh Government. 2015. Practice guidance: Planning for renewable and low carbon energy – a toolkit for planners. [Online] <http://gov.wales/docs/desh/publications/151021renewable-energy-toolkit-en.pdf> [Accessed 30 March 2017]

<sup>8</sup> Welsh Government. 2017. Natural Resources Policy. [Online] <http://gov.wales/topics/environmentcountryside/consmanagement/natural-resources-management/natural-resources-policy/?lang=en> [Accessed 24 August 2017]

<sup>9</sup> Natural Resources Wales. 2016. *State of Natural Resources Report (SoNaRR): Assessment of the Sustainable Management of Natural Resources*. Chapter 3, page 78. Technical Report. Natural Resources Wales. [On-line] <http://naturalresources.wales/media/681127/chapter-3-state-and-trends-final-for-publication.pdf> [Accessed 30 March 2017]

<sup>10</sup> Natural Resources Wales. 2017. *LANDMAP – the Welsh landscape baseline*. [Online] [www.naturalresources.wales/landmap](http://www.naturalresources.wales/landmap) [Accessed 24 August 2017]

## Landscape Sensitivity and Capacity Assessment in relation to on-shore wind and solar photo-voltaic developments

Built environment change	Rural environment change	Climate change
<ul style="list-style-type: none"> <li>Expansion of settlements</li> <li>Commercial and industrial developments quarries</li> <li>Road improvements</li> <li>onshore wind-farms and turbines</li> <li>Large recreation-related developments.</li> </ul>	<ul style="list-style-type: none"> <li>Felling of conifers and replanting with broadleaved woodland expansion</li> <li>Changing bracken cover.</li> </ul>	<ul style="list-style-type: none"> <li>Directly through changing land cover</li> <li>Indirectly by influencing land use decisions and climate mitigation measures, such as renewable energy generation, water resource management and adaptation through the planned expansion of woodland.</li> </ul>

Figure 4: The key contributors to landscape change in Wales 2003-2015, identified in LANDMAP and reported in SoNaRR.

Natural Resources Wales' Area Statements are informed by SoNaRR and provide a vital local evidence base for the sustainable management of natural resources, which Local Planning Authorities must have regard to in their LDPs.

The **Well-being of Future Generations (Wales) Act 2015**<sup>11</sup> is about improving the social, economic, environmental and cultural well-being of Wales and sets out seven national well-being goals. The Act requires public bodies to think more about the long-term, work better with people and communities and each other, look to prevent problems and take a more joined-up approach. Interpreting the contribution that landscape can make to achieving this is helpful, as can be seen illustrated against the well-being goals in Figure 5.

<b>A prosperous Wales</b>	Landscapes form the <b>settings that draw in visitors</b> . Tourism depends on the <b>quality and experience of our natural resources and cultural heritage</b> . <b>Place-based products and services</b> have long-been recognised as <b>adding value</b> .
<b>A resilient Wales</b>	Recognition of character can provide a landscape <b>context for setting sustainable levels of development</b> , in which the multiple values and benefits attached to places can continue or increase.
<b>A healthier Wales</b>	Landscapes provide the <b>settings for our lives</b> and the context for physical activity and outdoor recreation.
<b>A more equal Wales</b>	Easy access for all, to high quality landscapes and their benefits, means that <b>all landscapes matter</b> .
<b>A Wales of cohesive communities</b>	Landscapes can provide a distinct and positive sense of place <b>identity around which people can come together</b> .
<b>A Wales of vibrant culture and thriving Welsh language</b>	Landscapes are both a result from, and an influence on, cultural identity in Wales. Many names and cultural associations <b>reflect the close relationship that people have with places</b> .
<b>A globally responsible Wales</b>	Welsh landscapes provide a wealth of examples from past and present on how to <b>sustainably adapt nature to suit our many different needs</b> . They offer 'clues' for the future on what works and, through <b>green infrastructure</b> , show we can <b>build resilience to climate change</b> and <b>enhance the range of benefits</b> for both nature and people.

Figure 5: Illustrating how landscapes contribute to achieving Wales' 7 well-being goals

<sup>11</sup> Welsh Government. 2015. Well-being of Future Generations (Wales) Act 2015. [on-line]. <https://gov.wales/topics/people-and-communities/people/future-generations-act/?lang=en> [Accessed 29 June 2018]



## 4 General Landscape principles

### 4.1 The concept of landscape

Shaped by nature and people over time, landscapes are the settings in which we live, work and experience life. All landscapes matter. They are a product of the combination of natural resources, culture and economy. Many environmental resilience and place-based planning challenges that shape our future wellbeing and prosperity, are best addressed at a landscape-scale.

In Wales, landscape is recognised in decision-making through an ecosystem services approach in which landscape forms a ‘*cultural service*’ that provides multiple well-being ‘*benefits*’. We gain these well-being benefits through our experience of landscape, which is through (sensory and cognitive) perception. This scope is reflected by the **European Landscape Convention (ELC)** in its definition:

*Landscape: “an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors”<sup>12</sup>*

### 4.2 Working with landscape character

The landscape cultural service is understood with reference to the physical **characteristics** of the environment, including their *natural* and *cultural* elements and features, and our experience of those characteristics as *perceptual qualities*. These qualities provide the basis for the range of well-being benefits gained. Figure 6 illustrates this, showing how landscape character provides a place-based context for relating ecosystems and the physical environment (left hand side) with human well-being (right hand side). For example, if elements and features included rugged terrain, lack of development and extensive woodland, qualities that arise from this might include tranquillity, wildness and sense of place. Such qualities provide the basis for mental, social and physical well-being benefits such as freedom, peace, learning and recreation. *Annex 1: Stage 2 has more on using landscape character in LSCA.*

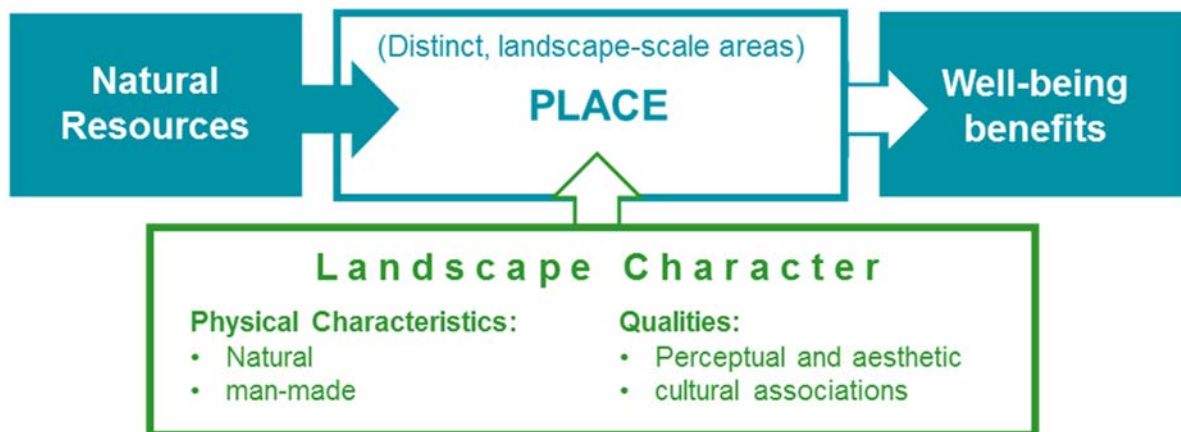


Figure 6: Showing how the landscape character relates natural resources to well-being via places.

<sup>12</sup> Council of Europe. 2013. Glossary of the Council of Europe Information System of the European Landscape Convention. [On-line] <https://rm.coe.int/CoERMPublicCommonSearchServices/DisplayDCTMContent?documentId=09000016802fc144> [Accessed 14 Feb 2017]

### 4.3 Landscape change and resilience

Both the Environment (Wales) and Well-being of Future Generations (Wales) Acts refer to the concept of 'resilience', which is a key context for understanding landscape change. Landscape resilience encompasses their "*capacity to deal with disturbances, either by resisting them, recovering from them, or adapting to them, whilst retaining their ability to deliver services and benefits now and in the future*".<sup>13</sup>

The concept of resilience encompasses the idea that change may be an option. Indeed, protecting all landscapes from change is neither practical nor desirable, and would miss the opportunity to use processes of change to make improvements. The object of working with landscapes is to *manage* change in ways that provide more benefit to society, rather than to prevent all change.

LSCA takes this approach in assessing landscape resilience by taking into account landscape change in assessing landscape capacity. This means that an understanding of the preferred future state or nature of a landscape is needed, in order to judge whether a given change would help or hinder achieving that state or nature.

Figure 7 provides an illustration of the results of managing landscape change in different areas.



Figure 7: Different types of resilient landscape near Hirwaun. The fore and mid ground landscape has been **restructured** from a degraded former industrial landscape to provide extensive forestry and active recreation areas, incorporating wind energy and solar PV developments. In contrast, the higher ground landscape in the backdrop is **protected** within the Brecon Beacons National Park, where special qualities such as remoteness, tranquillity, lack of development and enclosure, and lack of night lighting are being conserved.

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<sup>13</sup> Natural Resources Wales. 2016. State of Natural Resources Report (SoNaRR): Assessment of the Sustainable Management of Natural Resources. Technical Report. Chapter 4.

## 5 Summary of the LSCA assessment method

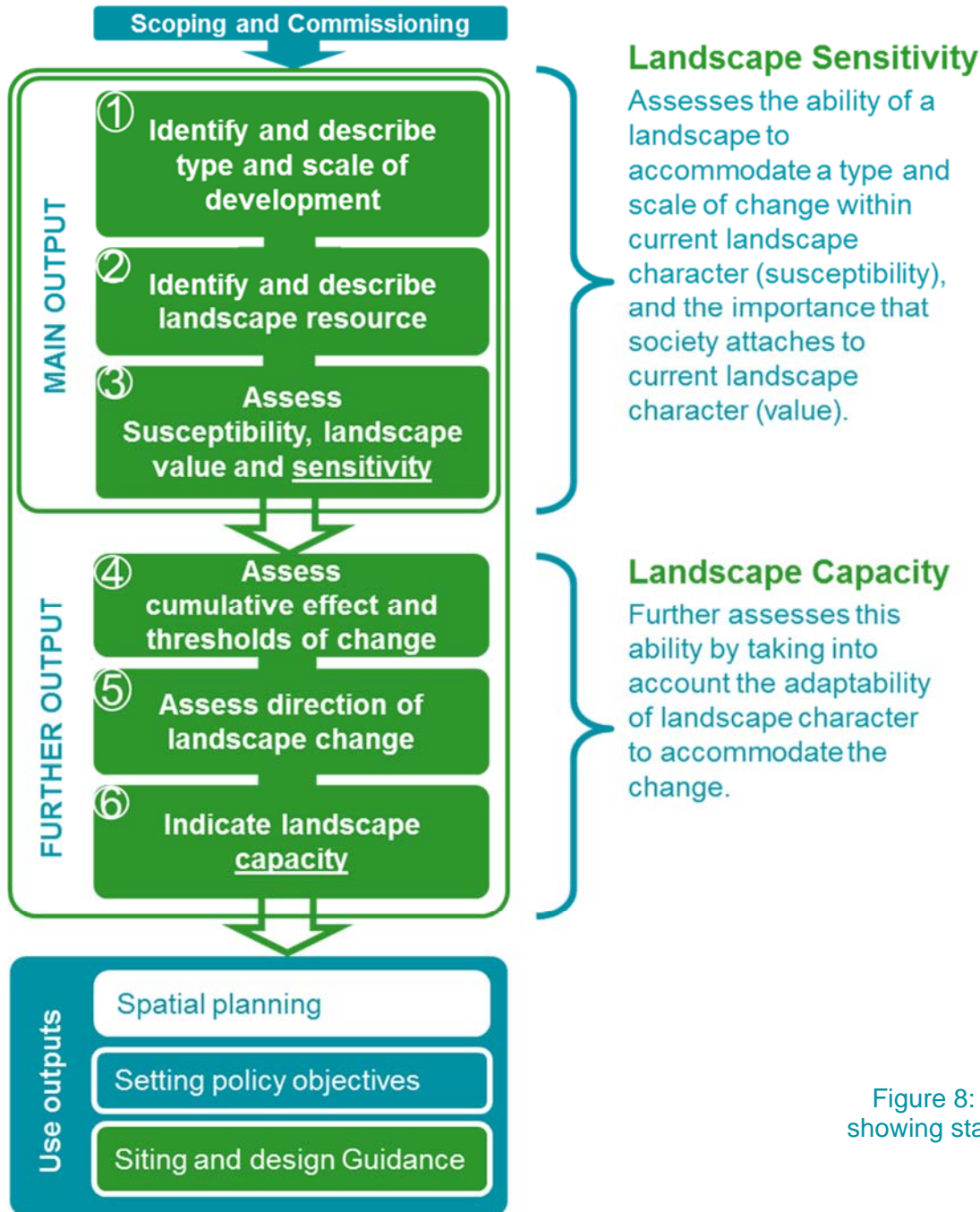


Figure 8: Flow diagram showing stages of LSCA.

The Local Planning Authority commission and use the outputs (as shown in **blue**). The LSCA assessment stages 1 to 6 are carried out by Landscape Architects as specialist work (as shown in **green**). The main output is at stage 3, which identifies landscape sensitivity. Further stages provide context in which to consider landscape sensitivity, while the final stage, identifying landscape capacity, also brings the complete assessment output together in presentation. The Local Planning Authority can then use the outputs to inform their work on spatial planning and setting policy objectives.

As the Landscape Architects will be best placed to prepare siting and design guidance to support policy objectives, they may also be retained for this further stage beyond LSCA.

The main public interface would be through the LPA's use of the outputs, but LSCA should still be published in full for transparency and to enable a developer to use it to inform their site search stage.

Each stage is explained below, with the separate *Annex 1* document providing more detail.

## 6 Summary of Assessment stages

### 6.1 Stage 1 – identify and describe the type and scale of development

Planners need to understand what kind of developments are being considered in the assessment. This helps with clarity and consistency. They need to know about:

#### Development Scenarios

These are very simple generic configurations of the development, so it is clear what types of development are being considered. Within a development type, there may need to be more than one scenario to represent the variety (e.g. for wind turbines, to distinguish between different turbine height ranges).

Simplicity is key to creating the most useful scenarios, so they can be most widely applied. Scenarios would be based on just a limited number of key characteristics that define the type of development, such as turbine height or spread of cluster. *Annex 1 highlights these.*

More than one development scenario may be needed for the assessment. For example with wind turbines, the example in Figure 41 (*Annex 1*) shows 5 different turbine height ranges and 5 different cluster sizes (numbers of turbines) for the sensitivity assessment.

Multiple developments do not need to be modelled in the scenarios because they are taken into account in stage 4 later.

#### Key characteristics of development types

Further detail is needed to describe the typical landscape and visual effects of the development type, in addition to the defining characteristics used in the scenarios. This further detail helps the assessor to understand how landscape character may be changed in the susceptibility assessment (part of stage 3).

### 6.2 Stage 2 – identify and describe the landscape resource

#### Landscape Character Areas

The assessment needs to be spatial in how it reports, so the study area is divided into a set of Landscape Character Areas, being discrete areas that collectively cover the entire study area. Each area is then described to highlight its defining landscape characteristics and qualities. In this guidance, '**character**' includes both physical **characteristics** (like rivers, houses, hillsides and woodland) and **qualities** (what we perceive, like sense of place, tranquillity, wildness). This stage is descriptive only and value-neutral.

It may be possible to adopt existing past landscape character assessments if available, subject to their review for accuracy, being of appropriate scale and detail, and be updated if needed. LANDMAP information is the starting point to inform any review or new landscape character areas, but further information and elements of field work are also needed to understand the landscape qualities.

#### Dealing with visual issues in LSCA

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Visual perception is an important aspect, but visibility is a different spatial concept to that of landscape character areas. Views and visibility change intimately over a short distance within a character area, and a single view may extend across a number of character areas. Views can only be assessed on a case by case basis when specific proposals and sites are known – which they are not in LSCA. Instead, LSCA reflects visual aspects of landscape character in the susceptibility assessment criteria (part of stage 3).

### 6.3 Stage 3 – Assess landscape sensitivity

This is the main stage of the assessment and comprises two distinct parts: susceptibility and value, which are then combined in a judgement of landscape sensitivity.

#### Landscape susceptibility

This part of the assessment provides the main baseline from which other assessment factors relate. It assesses the ability of current landscape character of an area to accommodate the type and scale of change – without changing landscape character. In other words, it assesses sensitivity, but in a value-neutral way that does not consider the degree of importance that society attaches to conserving such landscape character.

The assessment uses a range of criteria relevant to the effects of the type of development. The criteria are about the way the physical characteristics are experienced, often in combination, as landscape qualities. The criteria are not about just the mere presence of physical characteristics.

A judgement is made against each criterion in each landscape, for the type and scale of development. This includes a 'level' of susceptibility on a scale, with reasons why. This stage also needs elements of field work, as judgements are made in relation to the experience of landscape character.

#### Landscape value

In contrast to susceptibility, the assessment of landscape value reflects the nature and degree of importance that society attaches to sustaining the current character of a particular landscape. It relates to the range of landscape qualities from which society gains well-being benefits. It is not about monetary value and is not about recognising opportunities for change.

It is largely a research task and existing planning documents and landscape assessments often provide good secondary sources of evidence about the nature and degree of landscape value. LANDMAP, for example, is a primary reference that provides a suite of evaluations that reflect the importance of different landscapes to society. Landscape value is a plural concept and a range of different values will exist for each landscape.

#### Landscape sensitivity

This is the combined judgement of susceptibility and value. It is a judgment that highlights what makes the landscape sensitive and to what degree. It is not a numerical exercise in averaging out individual judgements as that would merely mask what is most important that may be changed by the type and scale of development.

### 6.4 Stage 4 – Assess cumulative effect

Assessment stages up to this point (1,2 & 3) have been concerned with assessing the ability of a landscape to accommodate a type and scale of change without changing

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landscape character i.e. landscape sensitivity assessment. That 'measure', while being an essential anchor for the assessment, is insufficient on its own since in the real-world landscapes change over time. Further stages (4,5 & 6) consider change, i.e. landscape capacity assessment.

### **Cumulative effect of existing and consented development of the type**

This stage considers the *degree* to which landscape character *has already been changed* by the type of development being considered. The assessment does this by placing the *current* landscape somewhere on a scale that ranges from no development of the type, to fully developed. Doing this acknowledges that some landscape capacity may already have been used.

### **Thresholds of landscape character change**

The scale of cumulative effect sets out in very simple terms when a threshold is crossed where further development changes landscape character from one type to another. This is specifically with reference to the different amounts of the development type, and for comparability assumes that all other factors remain the same. *Annex 1 illustrates this.*

Having several thresholds on the scale acknowledges that the issue is one of degree, as opposed to one of mere presence or absence of the development type. The calibration of the scale is determined by landscape character type and not by numbers of developments.

The scale provides a framework for considering increases in the amount of development while sustaining landscape character, i.e. without crossing a threshold. It provides an important counter to the unsustainable argument where the presence of one existing development is used to justify ever more, as if landscape capacity were unlimited.

### **6.5 Stage 5 – Assess direction of landscape change**

While stage 3 considered the importance that society attaches to sustaining the current character of a landscape, planning is not about always protecting everywhere. While the evidence from stage 3 may indicate benefit in maintaining or enhancing current landscape character in some landscapes, evidence in other landscapes may point more towards changing landscape character to provide greater benefit to society.

Stage 5 sets out four options for setting the future direction of managing landscape change. It is an important stage as otherwise the assessment could only report on the ability to accommodate in relation to maintaining current landscape character.

While **protection** from the type of development is an option, the other options are: to **accommodate** development within current landscape character; to **accept** landscape change, and to **restructure** the landscape character so it is better able to accommodate the type of development.

Stage 5 is a far more limited task within the scope of LSCA, than that of setting a planning policy objective (which would be beyond the scope of LSCA). However, the intention is for LSCA, alongside the many other planning considerations, to inform planning policy-making.

Stage 5 is only concerned with the direction of landscape change, and not with the details of how to achieve that direction. Such detail would fall to siting and design guidance, and

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landscape management plans, which are beyond the scope of LSCA. However, as LSCA forms a good evidence base to inform siting and design guidance, it is strongly recommended to link the two in what is published as Supplementary Planning Guidance.

### 6.6 Stage 6 – Indicate landscape capacity

#### Final stage in LSCA

Judging landscape capacity brings all the LSCA evidence together in a final combined judgement to indicate the ability of a landscape to accommodate a type and scale of change. It takes into account the sensitivity of current landscape character to such change, but also, with reference to the scale of cumulative effects, takes account of the future direction of landscape change, to recognise any further landscape capacity that may arise. If only one map were produced, the landscape capacity map would be the map.

#### Reporting landscape capacity

Landscape Capacity is expressed on a comparative and generalised scale related to changes in landscape character as set out in stage 4, rather than on the basis of a scale of high to low. Indeed, there is no simple relationship between the level of landscape sensitivity and landscape capacity. One being high does not dictate the other must be low, as might have been implied in some past assessments. Expressing capacity in terms of changes to landscape character provides a landscape (rather than an arithmetical) understanding of the judgement needed for intelligent decision-making.

*Annex 1 includes a figure illustrating the component parts of landscape capacity reporting.*

## 7 Scoping and commissioning a LSCA

The following further guidance comes from experience of the public sector commissioning landscape assessments.

### 7.1 Local Planning Authority (LPA) expertise

**This guidance** should act as the starting point for scoping. The LPA needs to act as an **'intelligent client'** for the project. This is often done using a **project steering group** that includes **landscape expertise** from their staff and potentially **Natural Resources Wales**, essentially including someone who is familiar with the LSCA process. Their main inputs would be at scoping and review stages. The LPA will also need to make a **range of GIS datasets** and any **existing landscape assessments** and **policies** available to the assessor at the start of the commission.

### 7.2 Assessor expertise

LSCA is specialist work for **Chartered Landscape Architects** with appropriate experience. The **Landscape Institute** can provide details of such Members, and practices who operate in Wales. Best practice is for two assessors to make judgements – so they can challenge each other to result in a more robust assessment. Pragmatically, cost may limit this and if so, it may be better to have one good experienced assessor making a clear judgement than have two who are less so.

### 7.3 Writing the specification

LPAs should **involve their in-house landscape staff**: a good assessment requires a good specification, which they can write. They should also consult Natural Resources Wales landscape staff.

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A good specification should clearly set out the **purpose of the assessment**, any limitations, and **in general terms the approach to be followed**, but without over-prescribing and stifling innovation or efficiency. An appropriate consultant would bring much experience and be able to write a more detailed method themselves.

Tenderers will **focus their bids on meeting the specification**. To do this, they need to know clearly where the LPA has a particular requirement (eg certain maps requested) and where the LPA is open to innovation (e.g. on presentation style and opportunities to use infographics). While the specification can refer to this guidance, it must be clear on:

- **Landscape character areas** – do these need to be created or are existing ones available? Remember that **LANDMAP** forms an important starting point for this.
- **Landscape sensitivity and landscape capacity** – both are needed for assessments of onshore wind and solar PV development types.
- **Careful reference to policy** – While LSCA should be policy-neutral, careful reference is made to relevant existing landscape policy under *landscape value* and *direction-setting*.
- **Field work** - assessing experiential qualities of a landscape **involves some field work**, ideally in summer to capture seasonal activity. It cannot be done purely as a desktop exercise.
- **Pilot studies** – these are a useful way of exploring and testing both methods and presentation options. They have the potential to make the final outcome more robust and accessible, but tenderers need to allow time resources to do this with the LPA.
- **Expert / stakeholder consultation on draft outputs** – consider incorporating enough time to do this, as it can bring in valuable local knowledge that otherwise may be overlooked. This has been especially useful at early/mid stages, for recognising landscape character areas and their key characteristics. **Specialists with local knowledge** are best to involve for this, by invitation to a workshop day, resulting in many useful flip-chart notes. Note that this consultation is part of the working method in preparing the LSCA and is separate from any subsequent public-facing consultation as part of the adoption as Supplementary Planning Guidance.
- **Siting and Design Guidelines** - would also be needed, but they cannot be formalised until the LPA has considered the outputs of the LSCA and agreed the landscape policy objective which the guidelines would then be framed to meet. In practice this might all be adopted and presented in the one document, typically as **Supplementary Planning Guidance (SPG)**.
- **Translation** – be clear on what is required, who does this, and who pays. See *Section 8.4 for more*.
- **Presentation** – this is part of the art of communication, not an optional add-on, and should be related to the intended audiences. See *section 8 for more*.



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It can be very helpful to informally pass a **draft specification** to a few potential consultants and Natural Resources Wales for feedback if they wish. They might iron out some potential wrinkles.

It is also useful to alert a range of potential consultants to the presence on the **Sell2Wales website** of tender documents as they have fed back that it is easy to miss them. To help on Sell2Wales, give the tender an **obvious name** such as '*Landscape Sensitivity and Capacity Assessment for .....County*' – this need not be the same as the name of the final report. It is important that advance notice of publication on Sell2Wales is not given as this could be seen as discriminatory to those consultants who were not notified in advance. The Landscape Institute might be able to assist in raising awareness of published tender documents through its member communications.

### 7.4 Time

LSCA may take the best part of a **year** to carry out, including finding resources, preparing a specification, commissioning, workshops and reviewing, and signing off the report. This does not always fit well with financial years and it may be wise to **split between two years** to enable **summer** field work and enough time to consider draft outputs.

Further stages, such as setting policy objectives, public consultation and adoption as Supplementary Planning Guidance would be after this. It is important to **involve those who control vital aspects of the project** (e.g. Finance Departments, GIS Data colleagues, funding partners) so that a realistic timetable is set, and unnecessary time pressures are avoided. Rushed work at the end of a financial year can work against carefully considered outputs and clear presentation and may be a false economy.

The LSCA should be **built into the timetable for the wider Renewable Energy Assessment**.

### 7.5 Procuring a LSCA

An appropriate **budget** is needed. It is not possible to pre-determine a rate for this work as numerous factors affect this and, in any case, the LPA would normally be required to commission this work through competitive tendering. To enable budget planning, it is best to consult a few colleagues in other LPAs who have commissioned such work in recent years. This need not be limited to just Wales. Natural Resources Wales landscape staff may also be aware of recent work. Records should be kept as to how and why the budget was judged to be appropriate.

### 7.6 Tenders and their evaluation

While the **Nolan Principles** are the over-arching ethical principles for public service, there are specific principles that must be followed in relation to the procurement process. These are set out in the **Public Contracts Regulations 2015** and require the public sector to treat economic operators (i.e. contractors/suppliers) equally and without discrimination and, in conducting a procurement, acting in a transparent and proportional manner.

While many issues can arise in procurement, a lack of time spent planning is a major issue. There must be a good specification; the LPA must know how they are going to evaluate the submissions in a fair and transparent manner; the evaluation criteria must be proportionate and fair; and the LPA must be able to compare submissions on a 'like-for-like' basis and weight criteria appropriately.

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Tender evaluation criteria must be disclosed at the within the procurement documents and published at the same time as the tender. This is so that tenderers can see up front how their submissions will be evaluated. Once published, the criteria must not be changed, and new criteria must not be introduced later in the evaluation process. Tender documents should include a percentage break-down of marks that will be used to evaluate submissions. It can be a useful exercise to test criteria and their weightings by running a dummy scoring exercise before proceeding to tender.

By not over-specifying the LSCA methodology (and just setting out principles and outputs), part of the tender selection will be to see the extent to which **tenderers really understand LSCA**. Tender evaluation should heavily weight scores to tenderers who demonstrate they are **genuinely familiar with LSCA**, evidenced by their showing examples of relevant high quality **past work elsewhere** where they have **played a leading role**. Asking for **time inputs** from **senior qualified staff** will also indicate whether they will be the ones making the LSCA judgements.

A couple of pitfalls and solutions in LSCA tender scoring are worth specific mention:

Issue	Pitfall	Solution
Scoring is spread evenly and widely across a full range of factors.	It can be hard for total scores to adequately distinguish a really good tender submission on the really important aspects, from one that is merely compliant across a wide range of aspects.	Heavily weight scoring criteria marks to aspects that are really important.
A large percentage of the score is given to cost, as is often wanted by Finance Departments	The evaluation is likely to favour the cheapest tender, which may be very far from the best. Also, a potentially good tenderer may lose because they over or under guessed the available budget limitation. Tender cost may be what distinguishes bids when the goods are of a known exact standard (such as buying a specific car) but this does not work well when procuring bespoke specialist services.	By declaring the probable cost in tenderer documents, which some have done in the past as a known limitation, submissions can focus much more accurately on what quality and quantity of work they can achieve for that cost. This enables a fairer comparison and a better value for money procurement that is more closely related to the available resources.

Figure 9: Examples of pitfalls of tender evaluation criteria for LSCA and their solutions

More guidance and experience on commissioning a LSCA are given in the **Scottish Natural Heritage Guide to commissioning a Landscape Capacity Assessment**<sup>14</sup> (160 pages). Topics include: clarifying purpose; deciding objectives; preparing a brief; identifying a steering group; establishing realistic timescales; getting the best from procurement; agreeing the content of the brief; project management tips; pilot studies and report format. Bear in mind when reading this that Scottish Natural Heritage use the term '*landscape capacity*' where we use would use the term '*landscape susceptibility*'<sup>15</sup>.

<sup>14</sup> Scottish Natural Heritage. 2011. A Guide to Commissioning a Landscape Capacity Study. [On-line]. <https://www.nature.scot/sites/default/files/2017-06/B858929%20-%20A%20Guide%20to%20Commissioning%20an%20Landscape%20Capacity%20Study%20-%2025%20May%202011.pdf> [Accessed 22 June 2018].

<sup>15</sup> Scottish Natural Heritage. [Undated]. Landscape Capacity Study. [web page]. <https://www.nature.scot/professional-advice/landscape-change/landscape-tools-and-techniques/landscape-capacity-study> [Accessed 23 May 2018].

## 8 Presentation

### 8.1 Audience

The **full report** is likely to run to hundreds of pages and form a reference for use by a limited technical specialist audience of Planners and Landscape Architects. It will use some technical terms and require a **glossary**. This audience will need to follow the logic and understand without too much effort which criteria are having most effect, where and why. In drafting, the discipline of 'boiling down' should result in a clearer report.

Most decision-makers will not be landscape professionals. This other audience need a simple interpretation or **summary**, ideally aided by infographics that convey complex ideas in an instant. Most LSCA reports use **tables** that provide a common format to report for each landscape character area. *Annex 1 Stage 6 identifies the component parts of LSCA that need to be presented and Annex 1 Appendix 4 illustrates some different approaches for presentation.* Bear in mind that despite complexity and nuance in LSCA, it is often the simpler messages that are more widely understood and accepted, and carry more sway in decision-making.

### 8.2 Publishing format

The **full report** should be published **on-line**. While it may be used primarily by the LPA, it would be an integral context in which siting and design guidance is based, which would be used more widely. Publishing in full is also important to allow developers to use the LSCA in their site search stage.

LSCA is not be read like a novel but dipped into for specific information. The traditional format is PDF, **split by chapter and by character area**, using intelligent file names to allow rapid access to the relevant part. An interactive pdf file is an alternative but a single file or pdf package may run to hundreds of megabytes. A '**clickable**' **capacity map** would be a very effective way into the report.

**Translation** might be required for all of the LSCA but many authorities publish bilingual Supplementary Planning Guidance and consider the full commissioned report as a separate technical document for only a limited audience, only translating summaries. The decision would be governed by the current Welsh language policies of the LPA.

## 9 LPAs using the outputs from a LSCA

### 9.1 Spatial prioritisation

Maps showing relative landscape capacity can be used to inform spatial policy by steering developments away from where there is least capacity. In areas where there is more capacity, maps should be used only in conjunction with other parts of the assessment, including the narrative 'reasons why' for judgements. This is to encourage a more intelligent approach than one where higher capacity areas are written off as being limitless.

### 9.2 Providing a policy steer for each landscape

A Landscape objective is a formally agreed policy to set the direction for future landscape change in an area in ways that give greater benefit to society. The concept is already well-established in Designated Landscapes through their Landscape Management Plans, but the concept can be applied to any landscape. Upgrading the status of the direction of change indicated in LSCA evidence, to form a policy, would provide more certainty and commitment. It is also an opportunity for policy-makers to bring in a wider range of factors,

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potentially leading in some cases to setting a different direction to that offered by the evidence from LSCA.

The range of direction-setting options arising from LSCA are those provided in Stage 5. Possible policy responses are:

- **Landscape protection** – a possible response where there was little or no capacity to accommodate the scale and type of development without significant adverse effects on a highly sensitive landscape - such as we might find in undeveloped scenic areas.
- **Landscape accommodation** – a possible response where some development could be fitted in, subject to careful siting and design, while still retaining the overall character, quality and integrity of the current landscape.
- **Landscape change** – a possible response where the landscape has a low sensitivity to the scale and type of development, or where the change would do no harm.
- **Landscape Restructuring** - to create a new landscape – a possible response where the kinds of change from the development would fit into a wider vision of landscape-scale restructuring – such as we might find necessary in regenerating some ex-industrial or peri-urban areas.

### 9.3 Creating siting and design guidelines

Getting the right developments in the right places includes getting the right siting and design. The ability to fit a development within existing landscape character can be increased where a good siting and design process has been followed, or to look at it another way, good siting, design and mitigation, could increase the landscape capacity to accommodate the development. Similarly a poorly sited or designed development may stand out from landscape character, which may not have capacity to accommodate it.

Having a clear landscape objective sets the direction for creating siting and design guidance. This in turn would enable developers to understand what they need to do to meet the objective.

LSCA provides an evidence base from which siting and design guidelines can be created. The landscape susceptibility criteria will be a particularly helpful reference in providing a wider landscape-scale consideration than may be possible within the confines of an individual development proposal. Some siting and design guidance will be **development-specific** and can therefore be set out once for all landscapes. Scottish Natural Heritage<sup>16</sup> and the Design Commission for Wales<sup>17</sup> have both produced guidance for wind farms.

In addition, **area-based** siting and design guidelines work with the specific characteristics and qualities of a particular landscape, to which any type of development should respond. These are what LSCA would inform and are usually produced by LPAs as part of their landscape character assessment, LSCA, landscape management plans and/or Supplementary Planning Guidance. *Area-specific siting and design guidelines are illustrated in Annex 1 Section 21.*

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<sup>16</sup> Scottish Natural heritage. 2017. Siting and design of wind farms in the landscape. Version 3a. [On-line]. <https://www.nature.scot/siting-and-designing-wind-farms-landscape-version-3a> [Accessed 27 June 2018].

<sup>17</sup> ARUP. 2014. Designing Wind Farms in Wales. Commissioned guidance from Design Commission for Wales. [On-line]. <http://cdn.dcfw.org.uk/Designing-Windfarms-in-Wales-2014.pdf> [Accessed 20 March 2017].

## 10 Reviewing a LSCA

LSCA need to be reviewed periodically (say once a decade) to ensure it still up-to-date and addresses the needs of the Local Planning Authority. In addition, new staff need to become familiar with the LSCA evidence base and it can be difficult to work out what is effective when they are leafing through an unfamiliar document. LSCA documents are long but are designed for quick reference and do not need to be read like a novel. Recommendations on effective review are offered in Figure 10 below.

1. **Identify the planning purpose and the specific objectives** of the study, and what **outputs** were required: remember, there may be more than one output – mapped recommendations for areas of search, for example, and perhaps also design guidance;
2. Go to the **recommendations or conclusions**, and see if the outputs reflect the objective(s) identified;
3. Analyse one example of the recommendations or conclusions, which may be as maps and text, or guidance – and **work backwards to see how the recommendations have been justified in the analysis** – can you see how the method has led to the conclusions?
4. It is easier to identify a **small number of landscape areas or one bit of the landscape, and follow it through the whole study, from analysis to conclusions**, or vice-versa, rather than to read all the document. Try to pick two or three landscape areas with contrasting character or conclusions, and see how these work;
5. Look at the **sensitivity assessment more closely** – are there gaps in the train of thought, difficult terms or concepts that you might find difficult to justify at a Public Local Inquiry?
6. Look at the **capacity assessment more closely** – is there a clear distinction in purpose between the sensitivity and the capacity assessment? Again, are there gaps in the train of thought, and has capacity been intelligently judged (as opposed to just being the ‘opposite’ of the sensitivity level)?
7. Is the **document clearly structured, are the maps an appropriate scale, and are illustrations useful**, adding value to the text? Is the **presentation appropriate** for the audiences? Is there / does there need to be clearer, simpler presentation for non-technical audiences e.g. for Supplementary Planning Guidance, and how and where is the main body of the assessment presented in relation to that? And can the two be easily cross referenced?
8. Once this has been done, consider **speaking to someone in the LPA who was involved** in commissioning or using the study to find out their general opinion of the assessment and any problems or limitations they have found with experience of using it.
9. For updating, have a look at **recent guidance** (such as this) to see if a future revision can refine method practice or definitions.
10. **Consider what might have changed**: The character of any of the landscapes? The most likely types or scales of development? Have any further landscape designations, landscape management plans or landscape policy objectives been created?
11. Assess the **scale of the revision task** and implications in terms of timescale and specialist expertise resources that would be needed for it.

Figure 10: Tips for readers to familiarise themselves with a LSCA and to consider the need for review. (based on SNH Guidance<sup>18</sup>)

## 11 ANNEX 1 – Methodology Guidance for Assessors

This provides technical guidance in more detail on how to carry out a LSCA., including a glossary of key terms. For convenience it is presented as a separate document, and accounts for the remaining numbered pages of this guidance (pages 22 to 65).

<sup>18</sup> Scottish Natural Heritage. 2011. A Guide to Commissioning a Landscape Capacity Study. [On-line]. <https://www.nature.scot/sites/default/files/2017-06/B858929%20-%20A%20Guide%20to%20Commissioning%20an%20Landscape%20Capacity%20Study%20-%202025%20May%202011.pdf> [Accessed 22 June 2018].