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# 1. Introduction

The Angus Landscape Capacity Study (2003) assessed the landscape capacity for urban expansion in relation to nine settlements within Angus. These settlements were Arbroath, Brechin, Carnoustie, Forfar, Kirriemuir, Monifieth, Montrose, Edzell and Friockheim. The Montrose assessment also included Ferryden and Hillside. The 2003 Study supported the production of the Angus Local Plan Review (adopted February 2009) and the Angus Local Development Plan: Main Issues Report (November 2013).

The Angus Settlements Landscape Capacity Study (2015) reviews and substantially updates the assessment for the nine settlements assessed by the 2003 Study and has been updated to include new assessments of landscape capacity for Letham and Newtyle. The LDP Main Issues Report identified a need to extend the settlement boundaries of Arbroath, Carnoustie, Forfar, Monifieth, Montrose, Edzell, Letham and Newtyle to accommodate future housing and employment development. Work undertaken during 2014 assessed the landscape capacity of these eight settlements for urban expansion and informed the selection of land allocations and policy wording in the proposed Angus Local Development Plan (February 2015).

Landscape capacity assessments were undertaken in 2015 for Brechin, Kirriemuir and Friockheim. These were considered as capable of meeting future development needs within existing settlement boundaries.

During the last ten years, the use of landscape capacity studies has become more common and consequently best practice has evolved. As a result, there are a number of changes to both the method of assessment and to presentation of the findings which are considered to reflect current best practice and provide a fuller explanation of the factors which influence landscape capacity. Perhaps most notable, is that rather than assessing defined parcels of land as per the 2003 Study, this Study assesses directions of growth. This has enabled the factors which influence capacity to be explained in a landscape context with the landscape described according to capacity rather than land parcels. Similarly, explaining the factors which influence capacity in text, rather than the tabulated form of the 2003 Study, has enabled a more detailed assessment, explaining differences in capacity which may exist between directions.

It should be noted that landscape capacity is only one of a number of considerations in the allocation of land within the proposed Angus Local Development Plan. This background study should therefore be taken into account along with other planning considerations.

The landscape capacity study considers the capacity for urban expansion around each settlement rather than small scale or infill development and can be used to inform the consideration of planning applications close to settlement boundaries.

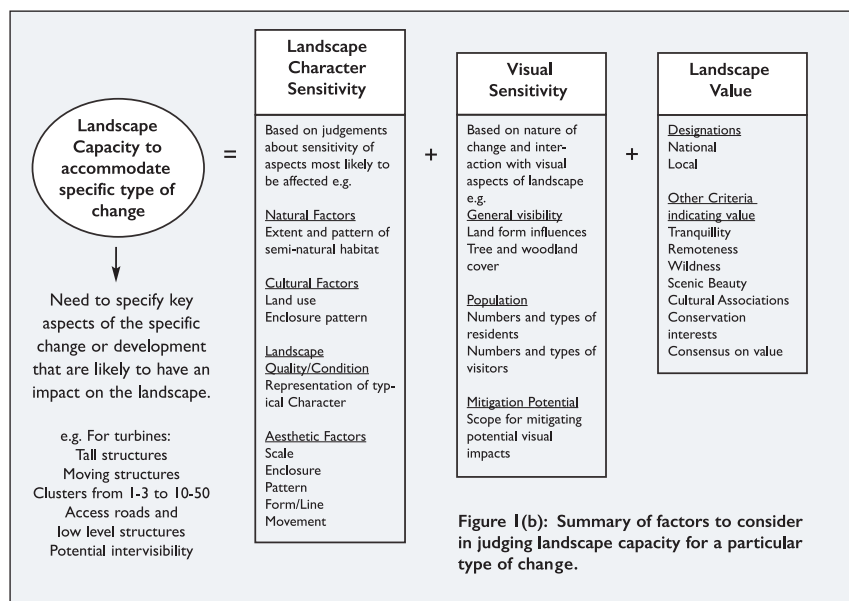
# 2. Methodology

## 2.1 Landscape Capacity

*"Landscape capacity refers to the degree to which a particular landscape character type or area is able to accommodate change without significant effects on its character, or overall change the landscape character type. Capacity is likely to vary according to the type and nature of the change being proposed".*

Swanwick, C. and LUC (2002) "Landscape Character Assessment Guidance" Countryside Agency and SNH

Landscape Capacity is derived from consideration of Landscape Character Sensitivity, Visual Sensitivity and Landscape Value which together inform an opinion on capacity. These are summarised below:



Swanwick, C. (undated) "Landscape Character Assessment Guidance for England and Scotland - Topic Paper 6: Techniques and Criteria for Judging Capacity and Sensitivity" Countryside Agency and SNH

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### 2.1.1 Landscape Character Sensitivity

*"Landscape sensitivity relates to change brought about by a specified development. Landscape sensitivity is a professional assessment of the relative effects of changes to landscape character likely to be brought about by introducing a specified new development into the landscape".*

Grant, A. in association with Clarke, P. and Lynch, S. (2010). Landscape capacity studies in Scotland – a review and guide to good practice. Scottish Natural Heritage Commissioned Report No.385.

Landscape Character Sensitivity is considered to be the extent to which change can take place without significant adverse impacts upon character.

Settlements in Angus are part of the wider landscape character. The location of a settlement and its relationship with landscape elements such as landform, field patterns and natural features such as rivers, dens and the coast all contribute to how a settlement relates to the landscape.

A settlement could be located in a hollow or on a plateau. It could be strongly bounded by a wooded den or a prominent escarpment. It could perhaps occupy one face of a shallow hill or a hilltop. Historic rectilinear street patterns can reflect the field patterns of the wider landscape, continuing the grain of the landscape into the urban areas. Historically, building stone was quarried locally, giving each settlement its own colour scheme directly related to the landscape around it.

The contribution of different landscape elements towards character is important as well as the condition and intactness of these elements. Scenic qualities and cultural heritage can also form part of landscape character sensitivity.

Development has the potential to reinforce or strengthen landscape character, or contribute towards the repair of landscape elements which may be important locally such as field boundary hedges and dykes or tree lines. However urban expansion also has the potential change the way in which a settlement relates to the landscape where particular characteristics are fundamental to the relationship.

### **2.1.2 Visual Sensitivity**

*“Visual sensitivity relates to change brought about by a specified development. Visual sensitivity is a professional assessment of the relative effects of changes to visual amenity or visibility likely to be brought about by introducing a specified new development into the landscape”.*

Grant, A. in association with Clarke, P. and Lynch, S. (2010). Landscape capacity studies in Scotland – a review and guide to good practice. Scottish Natural Heritage Commissioned Report No.385.

Visual Sensitivity is considered to be the extent to which change can take place without significant adverse impacts upon views.

Settlements in Angus are commonly part of views. A settlement which relates well to its landscape setting can be an important feature in views. They can add interest and a focal point. Conversely, some views are valued for their rural or semi-natural character, with little development.

Development in some locations may sometimes be visually discrete which could limit adverse impacts upon views and therefore be of lower visual sensitivity. However, conversely, certain locations may be highly visible, where development may potentially change the nature of views and would therefore be considered more sensitive. Elevation, landform and tree cover can all influence the likely visibility of development. Sensitivity takes account of reasonable mitigation, such as tree or woodland planting. However, sometimes mitigation measures in themselves could affect views.

Views from within or the edge of settlements can be important. These views can sometimes contribute towards the sense of place and provide a direct connection with the wider landscape. It can be a view towards a nearby landmark hill or indeed a more distant range of hills. It could be views across the settlement providing a strong landscape context. Views can often help define a settlement whether it be, for example, overlooking the sea, on a hillside; or it could be a particularly scenic or historic area of landscape next to the settlement.

With all the above scenarios, views experienced by many people can be more sensitive, but the activity of the viewer is just as important. Views from viewpoints and local hilltops and from recreational routes, such as Core Paths, path networks and other promoted routes where views are important to the experience can be particularly sensitive.

### **2.1.3 Landscape Value**

Landscape value reflects the value that society and individuals put on a landscape.

Designations can be an indicator that a landscape is of higher landscape value, but it could also be valued by a community of interest which might include local residents, recreational visitors or those interested in conservation. Some landscapes simply have higher intrinsic landscape value as they may have scenic qualities such as tranquillity, remoteness, wildness, scenic beauty or strong cultural associations or conservation interest.

There are no National Scenic Areas close to the settlements in this study. Similarly, Angus has not currently identified Special Landscape Areas. However, non-landscape specific designations can provide an indication of value. These non-landscape designations could include Conservation Areas, Tree Preservation Orders, Listed Buildings, Scheduled Ancient Monuments, Country Parks and a number of biodiversity and geodiversity designations.

In addition, promoted routes such as Core Paths, path networks, nature trails and the Angus Coastal Path often are indicators of the presence of landscape value. Similarly areas with recreational uses, including golf courses, the coast, river banks, and public parks are valued by the public.

Development can adversely affect those aspects of landscape which contribute towards landscape value. Conversely, development could theoretically mitigate factors which may reduce landscape value.

## 2.2 Angus Settlements Landscape Capacity Study

This methodology has been developed in discussion with Scottish Natural Heritage.

In order to assess capacity for urban expansion in each of the settlements baseline assessments and descriptions were produced. These were produced following desk study and detailed on-site assessments by landscape professionals. Two baseline assessments were carried out; a Landscape Assessment and a Visual Assessment. Based on these assessments, the third section is a Detailed Analysis of Directions of Growth. A further explanation of each of these stages is detailed below.

Photography was by Nikon D5000 digital single lens reflex camera with a fixed 35mm lens. This is the equivalent of a 52mm focal length in 35mm format. Panoramas were created from single frame images with Adobe Photoshop software.

### 2.2.1 Landscape Assessment

The Landscape Assessment section seeks to identify strengths and weaknesses in how the settlement relates to the landscape. The Assessment describes and analyses factors which inform opinion on Landscape Character Sensitivity and Landscape Value. The Assessment is divided as follows:

- **Landscape Character Assessment:** This includes a summary of the regional landscape character descriptions based upon the Tayside Landscape Character Assessment.
- **Landscape Setting:** This describes the setting of the settlement and local landscape character, including how the settlement relates to the landscape more locally.
- **Settlement Form and Pattern:** This describes the evolution of the settlement and how this responds to the landscape within which it is located.

### 2.2.2 Visual Assessment

The Visual Assessment section seeks to identify strengths and weaknesses in how the settlement is viewed in the landscape and the views that are important from within or the edge of the settlement. How a settlement is viewed as it is approached is an important part of the visual experience which would most likely be subject to change. These views are part of the perceived settlement image/ identity. The Assessment describes and analyses factors which inform opinion on Visual Sensitivity and Landscape Value. The Assessment is divided as follows:

- **Views out or Across Settlement:** This describes important views from within the settlement outwards and views across the settlement.
- **Views of Settlement:** This describes how the settlement is viewed from the wider landscape.
- **Approaches:** This describes the visibility of the settlement as it is approached and analyses the strength of the settlement edges and the sense of arrival.

### 2.2.3 Detailed Analysis of Directions of Growth

The Detailed Analysis of Directions of Growth assesses the capacity for urban expansion for each direction around the settlement. This section takes into account the findings of the previous sections and combines these for each direction to identify constraints and opportunities. This method aims to assess capacity for urban expansion in each direction for the settlement. It is not the specific intention that the capacity of each parcel of land is individually assessed. However, sometimes, due to existing bounding landscape features comments inevitably relate more specifically to land parcels.

The study seeks to define radial boundaries of each direction in a way which is both understandable and identifies the more important factors locally which inform Landscape Character Sensitivity, Visual Sensitivity and Landscape Value. Public roads are often used to divide the directions assessed, but other features such as Core Paths, rivers and disused railways are sometimes used where they help differentiate between directions where specific factors can influence landscape capacity.

The Detailed Analysis of Directions of Growth sections for each settlement further explore the factors which can affect capacity in each direction. For example, it is commonly the case that there is variation in Visual Sensitivity in a given direction. This can be in relation to different parts of a boundary, or changes in visibility which might result from changes in elevation or the existence of screening landform or woodland. Similarly, there can be variations in Landscape Character Sensitivity within a particular direction of growth. For example, the setting of a settlement can sometimes be defined by its relationship to landscape features such as landform, escarpments, aspect, rivers and other natural features. Development has the capability to change the relationship of the settlement with these features and this may vary within a given direction of growth. Landscape Value can similarly vary locally. This section describes these factors and how they affect Landscape Character Sensitivity, Visual Sensitivity and Landscape Value, before providing guidance in relation to the capacity for settlement expansion in the direction.

As indicated above, the three factors which influence capacity are Landscape Character Sensitivity; Visual Sensitivity and Landscape Value. The landscape capacity in any given direction is a combination of the effects upon these three factors as follows:

- **High Capacity:** Where urban extension can take place without significant adverse effects upon any of the three factors and with a limited need for mitigation.
- **Medium Capacity:** Where urban extension can take place without significant adverse effects upon the any of the three factors but is likely to require more substantial mitigation, or where limited adverse residual effects are likely to remain.
- **Low Capacity:** Where an urban extension cannot take place without significant adverse effects upon one or more of the three factors, with only partial mitigation possible.
- **No Capacity:** Where urban extension cannot take place without significant adverse effects upon any of the three factors and which cannot be substantively overcome by mitigation.

#### **2.2.4 Conclusion**

Lastly, the conclusion summarises landscape capacity for urban extension in the settlement.