Value for Money
Supplementary Guidance on Landscape

Moving Britain Ahead
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1. Introduction

Background

1.1 This document is intended as a supplement to the Value for Money Framework, and provides guidance on undertaking an approach to indicatively monetising the landscape impacts of a transport proposal. It should be read alongside the Value for Money Framework; WebTAG Unit A3 on Environmental Impacts\(^1\); and Her Majesty’s Treasury’s (HMT) Guidance on Environmental Appraisal\(^2\), which supplements HMT’s Green Book\(^3\).

1.2 Local analysts, policy officials, and decision-makers should note that this document, in addition to the Value for Money Framework and Supplementary Guidance on Categories, replaces existing guidance found within the December 2013 document, “Value for Money Assessment: Advice Note for Local Transport Decision Makers”.

What is ‘landscape’?

1.3 Landscape means more than just ‘the view’. It is both the physical and cultural characteristics of the land (i.e. its use and management) and the way in which we perceive those characteristics. It is this mix of characteristics and perceptions that make up and contribute to landscape character and give a ‘sense of place’.

1.4 Landscape forms a key part of what is often referred to as our natural capital, defined as the UK’s stock of natural assets (which also includes biodiversity, water, and soil, for example).

1.5 The UK public derive a wide range of services from our natural capital – from the provision of resources for basic survival, to social and cultural benefits from interaction with nature. These are known as ‘ecosystem services’ and directly affect our well-being (referred to in the Value for Money Framework as ‘public value’).

How should landscape inform a value for money assessment?

1.6 Given the variety of landscapes, the range of services they can provide, and the difficulties in finding reliable estimates of just how much the public value them, deriving a methodology for including landscape impacts in a value for money assessment – especially in monetary terms – is challenging.

1.7 In a transport context, landscape is most often included in a value for money assessment as a non-monetised impact, alongside other environmental impacts. WebTAG Unit A3, Section 6 provides guidance on how a non-monetised assessment of these impacts can be undertaken. This approach was developed by the Department for Transport (the Department) together with Natural England (formerly the Countryside Agency and English Nature), English Heritage and the Environment Agency.

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1.8 The WebTAG non-monetised assessment is wide-ranging and covers the impact of proposals on various aspects of landscape that affect the well-being of the public. This is combined with an understanding of the local and national importance of the landscape, and its relative rarity and substitutability.

1.9 In all WebTAG-consistent appraisals, this non-monetised assessment should be undertaken and reported.

1.10 However, in some cases there is interest in finding a monetary valuation of the impact of landscape changes on public value. Chapter 2 of this document sets out a methodology applicable to any scheme (where appropriate), which can provide an indicative view of the scale of the monetary impact. This methodology is already widely used to assess landscape impacts for local authority transport proposals.

1.11 As a result of concerns over its robustness, this methodology is not contained within the Department’s definitive appraisal guidance, WebTAG. As a result, these values should not be included within the adjusted value for money metrics (BCR and NPPV).

1.12 Instead, the monetary value should be included in a value for money assessment as an ‘indicative monetised impact’, as set-out within the Value for Money Framework and accompanying ‘Supplementary Guidance on Categories’.

1.13 Since it is the ecosystem services provided by natural capital that affect public value, HMT and the Department for the Environment, Food and Rural Affairs (Defra) recommend the use of approaches based on an understanding of ecosystem services to measure impacts on natural capital in appraisal and value for money assessments.

1.14 The non-monetised and indicative monetised approaches set-out in WebTAG Unit A3 and in this document do not explicitly assess impacts on ecosystem services, but they consider many of the same impacts. Section 5 of WebTAG Unit A3 discusses this in greater detail.

1.15 To facilitate a broader consideration of impacts on ecosystem services, Defra have developed an Environmental Value Look-Up Tool. This can help with the monetary valuation of impacts to landscape and other elements of natural capital. Although the application of this tool to the appraisal of transport schemes has not yet been established, it can provide useful insight.

**Reporting Landscape Assessments**

1.16 The results of any landscape assessment – both monetised and non-monetised – should be appropriately reported in the Value for Money Statement, as set out in the Value for Money Framework.

1.17 The landscape assessment is subject to analytical assurance considerations, with the rest of the value for money assessment, and should be discussed in analytical assurance statements where relevant. The Department’s Analytical Assurance Framework, Strength in Numbers, contains guidance on this subject.
2. An Approach to Indicatively Monetising Landscape Impacts

2.1 This chapter provides guidance on using an indicative approach to monetising the impact of an infrastructure scheme on landscape.

2.2 The values used in this approach help provide an indicative estimate of the monetary value of impacts but they are not suitable for giving precise estimates. They should therefore not be included in the initial or adjusted value for money metrics.

2.3 This indicative approach should be used in conjunction with the assessment outlined in WebTAG Unit 3.3.7 (The Landscape Sub-Objective).

2.4 Box 2.1 below summarises the seven-step procedure to follow:

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Step 1

2.5 First, conduct the WebTAG non-monetised landscape valuation⁴.

2.6 If the non-monetised landscape impact is assessed as neutral or slight, in most cases it is not proportionate to carry out further analysis.

2.7 If the non-monetised impact is assessed as large or moderate, it may be useful to undertake a monetised assessment to provide a further indication of the impact on public value resulting from the landscape changes of the scheme.

2.8 Steps 2 to 7 below outline an approach for undertaking this assessment. This approach is not included within WebTAG and any monetised impacts derived should be considered ‘indicative’. The Value for Money Framework provides further guidance on how these impacts should be treated in a value for money assessment.

Steps 2 and 3

2.9 Segment components of the scheme into different land types, where the value of changes to the landscape differ.

2.10 Allocate each segment of the scheme to the correct ‘land type’ as set out in Box 2.2 below.

2.11 These steps require the practitioner to make a judgement and can be aided through a variety of sources such as environmental constraints maps; Ordnance Survey maps; environment statements; aerial photos; artists’ impressions; digital images such as ‘Google Earth’ or ‘Street View’; or a site visit and consultation / engagement with local communities.

Step 4

2.12 It is essential to identify the “footprint” of the proposal or the area judged to be most affected. This should be done by considering the type of infrastructure being introduced, the setting and topography of the impacted area, and who or what will be affected (the receptors).

2.13 However a simplification may be to assume that the proposal will affect the landscape up to 500m either side of the scheme. A linearly declining impact is also assumed. These assumptions would lead to a footprint for each kilometre of the scheme of 50 hectares (25 hectares at either side of the proposal).

Step 5

2.14 The assessment should also consider mitigation measures as these may imply a lower footprint. Mitigation for landscape impacts can take various forms:

- Existing structures: Where existing structures are nearby, the footprint of the existing and proposed development may overlap. For example, a proposal to widen an existing road is likely to have a smaller impact than developments that are offline. Similarly, the impact of existing housing or woodlands may act as a screen. The assessment should then only account for the marginal impact.

- Mitigation within the proposal design: The proposal may include mitigation directly, for example through use of tree planting or sympathetic materials.

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⁴TAG Unit A3, Chapter 6
2.15 If consideration of any mitigations is included in the assessment, what these are and how they have been incorporated should be reported in the Value for Money Statement and Economic Case.

2.16 If the mitigation is identified only in the later stages of a proposal’s development, it is important to revisit the value for money assessment at that point so that it may be incorporated.

**Step 6**

2.17 This step entails the indicative monetary valuation of the impact of the scheme on landscape.

2.18 Box 2.2 provides the basic calculation used to arrive at the indicative monetary valuation of the change in public value resulting from a proposal's landscape impact.

2.19 This involves the simple multiplication of the present value of the landscape per hectare by the number of hectares affected to arrive at an indicative figure for the present value landscape impact.

### Box 2.2 Basic calculation to arrive at indicative value of landscape impact

\[ V_{s,l} = \text{Length} \times \text{Value}_l \times A_s \]

So that \( V \) is the present value of the landscape impact associated with proposal \( s \) on land type \( l \).

\( V \) is measured in £s, length in kilometres, value in £/ha and \( A \) is ha/km.

This shows that \( V \) is calculated by:

- multiplying the scheme length (for linear based schemes) by the appropriate landscape value for land type \( l \) (in present value terms); then
- multiplying this by a further factor \( A \), which establishes the area of the land type which is impacted upon (i.e. the number of hectares per km of scheme). This factor is discussed in steps 2 and 3.
- For simplicity, the typical value of \( A \) is 50 ha/km (25 either side of the proposal).

2.20 In this methodology, the per hectare values used vary by ‘land type’. These are given in Box 2.3.

2.21 The landscape values in Box 2.3 are sourced from a study by the Department of Communities and Local Government (published in 2002). The figures were obtained from an extensive literature review which consolidated and considered evidence from 47 relevant studies, mainly from the U.K but also from the U.S., Europe and Australia dating from 1984 to 2001.

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5 The Landscape values are based on the original DCLG study values, the majority of which present willingness to pay estimates for the environmental benefits provided by different types of undeveloped land. These have been presented in 2010 prices using the GDP Deflator and rounded to the nearest 100 (annual values) and 1000 (infinite value).
2.22 The derivation of the values in Box 2.3 is subject to known concerns which emphasise the importance of understanding that this approach does not produce precise estimates and is only to be used to provide indicatively monetised valuations of landscape impacts:

- **Double-counting:**
  - The reported landscape valuations do not just include landscape amenity benefits (where landscape character and quality combine to produce attractive views). They may also include the external benefits of recreation, biodiversity, cultural heritage, water environment and
tranquillity. Some of these benefits may have been captured elsewhere in the appraisal, and so simply adding them to the appraisal may lead to an over statement of the impact.

- **Appraisal period:**
  - The landscape impacts are assumed to exist in perpetuity. Even if a road lasts in a useable state for 60 years (the current standard appraisal period) its impact on the landscape is assumed to continue - unless costs of returning the landscape to its original form are included.

- **Green Book compliance:**
  - The study assumed a 3% rate of increase to annual per hectare values composed of an income growth of 2.5% and an income elasticity of 1.2 (i.e. landscape values grow faster than income). Both parameter assumptions differ from (and pre-date) default values in the Green Book, which point towards a 2% rate of appreciation (and would halve current landscape figures).
  - The study values also pre-date Green Book discount rates - and use a 3.5% flat-rate discount rate rather than a declining rate over time as suggested by the Green Book\(^6\). This is in part a technical issue to allow the calculation of impacts over perpetuity (avoiding values exploding to infinity due to the interaction with the rate of appreciation).

**Step 7**

2.23 Informed judgement is required at many stages of this assessment process, and the quoted values are subject to known uncertainties. As a result, sensitivity analysis should be undertaken to test the assumptions used.

2.24 The assessment could assess a ‘best case’ scenario and a ‘worst case’ scenario with varying assumptions for mitigation, landscape character and the design envelope of the scheme. In some cases it may be proportionate to carry out more detailed analysis including consideration of the timing of the impacts and any other underlying assumptions (such as income growth). The impact of these can then be presented within the value for money conclusions.

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\(^6\) Green Book discount rate - 3.5% for first 30 years, 3% for subsequent 45 years, 2.5% for next 50 years, 2% for following 75 years, 1.5% for 100 years after that, then a 1% rate.