

Appendix 9A

Landscape and visual impact assessment methodology

1. Methodology for predicted landscape and visual effects

- 1.1.1 The Landscape and Visual Impact Assessment (LVIA) has been undertaken in accordance with best practice guidance and the methodology as set out here, which is based on the third edition of *Guidelines for Landscape and Visual Impact Assessment (GLVIA3)*¹. Additional guidance has been taken from, but not limited to, the following key publications:
- *Advice Note 01/11 Photography and photomontage in landscape and visual impact assessment*²;
 - *Visual Representation of Wind Farms Version 2.2*³;
 - *Technical Guidance Note 02/17 Visual representation of development proposals*⁴; and
 - *Technical Information Note 01/2017 Tranquillity - An Overview*⁵.
- 1.1.2 The assessment of the significance of landscape and visual effects is, according to GLVIA3¹ "an evidence-based process combined with professional judgement." All assessments and judgements must be transparent and capable of being understood by others. Levels of landscape and visual effects are determined by consideration of the nature or 'sensitivity' of each receptor or group of receptors and the nature of the effect or 'magnitude of change' that would result from the Proposed Development.

1.1 Landscape effects

- 1.1.3 Landscape effects are defined in GLVIA3¹, paragraphs 5.1 and 5.2 as follows:
- "An assessment of landscape effects deals with the effects of change and development on landscape as a resource. The concern ... is with how the proposal will affect the elements that make up the landscape, the aesthetic and perceptual aspects of the landscape and its distinctive character. ... The area of landscape that should be covered in assessing landscape effects should include the site itself and the full extent of the wider landscape around it which the Proposed Development may influence in a significant manner."*

¹ The Landscape Institute (2013). *Guidelines for Landscape and Visual Impact Assessment (GLVIA3)*. London. Landscape Institute.

² The Landscape Institute (2011). *Photography and photomontage in landscape and visual impact assessment – Advice Note 01/11*. London. Landscape Institute

³ Scottish Natural Heritage (2014). *Visual Representation of Wind Farms Version 2.2*. Inverness. Scottish Natural Heritage.

⁴ The Landscape Institute (2017). *Visual representation of development proposals. Technical Guidance Note 02/2017* (31 March 2017). London. Landscape Institute.

⁵ The Landscape Institute (2017). *Tranquillity – An Overview. Technical Information Note 01/2017 (Revised)*. London. Landscape Institute.


Evaluating landscape sensitivity to change

- 1.1.4 The sensitivity of a landscape receptor, for example a Landscape Character Area (LCA), to a development is determined by the susceptibility of that landscape receptor and its value. The methodology describes landscape sensitivity as high, medium or low and is assessed by taking into account the landscape receptor's landscape value and landscape capacity or susceptibility to the changes identified as the result of the construction and subsequent operation of the Proposed Development.
- 1.1.5 Further guidance on the evaluation of landscape sensitivity and the criteria for assessing value and susceptibility is set out in paragraphs 5.39 - 5.47 of *GLVIA3*¹ and summarised in Paragraphs 1.1.7 – 1.1.12.

Landscape value

- 1.1.6 *GLVIA3*¹ defines landscape value as:
- "The relative value that is attached to different landscapes by society".*
- 1.1.7 A consistent approach has been applied to determining the landscape value of the individual landscape character receptors considered in the landscape assessment. This utilises a range of factors to help understand the value of a particular landscape, as follows:
- Landscape designations: whether an area of landscape is recognised by statute (i.e. National Parks), is a heritage coast, a locally designated landscape or is undesignated;
 - Landscape quality/condition: a measure of the physical state of the landscape (i.e. the intactness of the landscape and the condition of individual elements);
 - Rarity: the presence of rare elements or features in the landscape or the presence of a rare landscape character type;
 - Conservation interests: the presence of features of wildlife or historical and cultural interest which add value to the landscape;
 - Recreational 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 tranquillity; and
 - Associations: some landscapes are associated with particular people, such as artists or writers, or events in history.
- 1.1.8 **Table 9A.1** draws from the advice provided in *GLVIA3*¹ and provides further guidance and examples of landscape value.

Table 1A.1 Assessing landscape value

Landscape value criteria	Landscape sensitivity category		
	High	Medium	Low
Designations	Internationally or nationally designated landscape.	Non-designated or 'ordinary' landscapes and landscape features.	A 'non-landscape' or area of land-use associated with mineral extraction, heavy industry, landfill, large scale construction (which may be temporary) or dereliction.
Landscape quality, condition and intactness	Landscape/features recognised to be of high landscape quality and in excellent or good condition with a 'strong' intact/unified and distinctive character.	Landscape/features that are of a reasonable or medium quality and condition with an intact and recognisable character.	Landscape/features that are in a poor condition with a fragmented or indistinct landscape character.
	Constant/mature landscape with strong time depth.	Constant or improving state.	The landscape may be in a declining state.
	Management plans aim for conservation.	Management plans aim for conservation and enhancement.	Management plans aim for enhancement and restoration.
Scenic quality	A landscape of high aesthetic appeal supported by recognised tourist/visitor literature. There are little or no detracting features.	A landscape of moderate or 'ordinary' aesthetic appeal. There may be some detracting features.	A landscape of limited or no aesthetic appeal with detracting features, including noise, traffic movement and/or odours.
Rarity and representativeness	A landscape or features that are rare and valued in a national or regional context that is supported by designation.	A landscape of moderate or 'ordinary' aesthetic appeal. There may be some detracting features.	A landscape or features that are common and not rare.
Conservation interest and associations	A landscape with rich and diverse cultural, historic, nature conservation value and recognised literary or artistic associations with international/national designation.	A landscape with some cultural or nature conservation features and interest	A landscape with few or no cultural or nature conservation features and interest.
Recreation value	High recreational/tourist value indicated through land use (parks/sports facilities etc.) and the density/hierarchy of recreational routes.	A landscape of moderate recreational value, as indicated by land use and density/hierarchy of recreational routes.	A landscape of limited recreational value, where an appreciation of the landscape has a limited contribution to the public's recreational experience.
Perceptual aspects	Highest levels of Campaign to Protect Rural England mapped tranquillity. Strong perceptions of 'wildness' or naturalness and dark skies.		Developed landscapes which are the antithesis of tranquillity 'wildness' or naturalness. Light intrusion occurs.

Landscape susceptibility to change

1.1.9 GLVIA3¹ defines landscape susceptibility to change as follows:

"This means the ability of the landscape receptor to accommodate the Proposed Development without undue consequences for the maintenance of the baseline situation..."

1.1.10 GLVIA3¹ also emphasises that susceptibility to change is dependent on the type of development proposed. Paragraph 5.42 states:

"Some of these existing assessments may deal with what has been called 'intrinsic' or 'inherent' sensitivity, without reference to a specific type of development. These cannot reliably inform assessment of the susceptibility to change since they are carried out without reference to any particular type of development and therefore do not relate to the specific development proposed. Since landscape effects in LVIA are particular to both the specific landscape in question and the specific nature of the development, the assessment of susceptibility must be tailored to the project."

1.1.11 **Table 9A.2** provides further guidance and examples of landscape susceptibility, which considers the capacity or ability of the landscape receptor, by virtue of its particular physical, visual or perceptual characteristics to accommodate the Proposed Development without undue consequences for the maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies.

Table 9A.2 Assessing landscape susceptibility to the Proposed Development

Susceptibility criteria	Landscape susceptibility category		
	High	Medium	Low
Examples of physical elements/characteristics	Highly valued elements or combinations of characteristics such as of small-scale landscapes with strong topographical variation or distinctive landform and complex patterns, which are essentially intact and susceptible to development.	Elements or combinations of characteristics such as medium to large scale landscapes with more open, simple landform and patterns with some capacity for development.	Common/indistinct elements or combinations of characteristics such as large-scale and simple/uniform landscapes, where similar development is already part of the baseline character and there is capacity for development.
Examples of visual characteristics	Susceptibility to alteration of regionally/locally valued or distinctive skylines, views, vistas and skylines with historic landmarks. Areas with a strong visual relationship with surrounding landscapes/setting and limited visual intrusion.	A partially enclosed landscape offering some visual containment and filtering of views and moderate levels of intervisibility with any visual landmarks and surrounding landscapes. Skylines are likely to be broad and simple. A landscape where light intrusion and some movement and change are already present.	Combinations of broad and simple skylines lacking in landmarks, where development change movement, light intrusion and/or visual intrusion is present. A heavily enclosed landscape which contains or strongly filters views with a corresponding limited visual relationship with surrounding landscapes. A landscape with an absence of visual landmarks and/or where movement and visual intrusion is already present.
Examples of perceptual characteristics	Perceptions of tranquillity, remoteness or naturalness, with strong sense of time depth and/or related special	Perceptions of moderate tranquillity, remoteness or naturalness, presence of some light intrusion and some visual	Landscapes lacking in tranquillity and/or remoteness, which are subject to land use change and high degrees of

Susceptibility criteria	Landscape susceptibility category		
	High	Medium	Low
	qualities and low levels of light intrusion that would be susceptible to development.	or audible signs of existing comparable built development/infrastructure giving rise to a landscape with some development capacity.	light intrusion and visual or audible signs of existing comparable built development/infrastructure with development capacity.

Overall landscape sensitivity

- 1.1.12 The combination of the value and susceptibility to determine landscape sensitivity is a matter for informed professional judgement. The matrix shown in **Table 9A.3** has been used as a guide to assist this process. In terms of landscape value, national and international landscape designations are generally accorded the highest assessment value.

Table 9A.3 Overall landscape sensitivity

Overall landscape sensitivity		Susceptibility		
		High	Medium	Low
Value	High	High	High	Medium
	Medium	High	Medium	Low
	Low	Medium	Low	Low

- 1.1.13 The landscape sensitivity of the LCAs scoped into the landscape assessments, as listed in paragraph 9.7.7 in **Chapter 9**, are assessed in a series of completed proformas in **Appendix 9B**.

Magnitude of landscape change

- 1.1.14 The magnitude of landscape change or degree of change resulting from the proposed development is described as high, medium, low or negligible, in accordance with GLVIA³ paragraph 3.27 use of 'word scales'. In those instances where, due to mitigation, there would be no magnitude of landscape change, then this justification is also recorded in the landscape assessment. The magnitude of landscape change is described by reference to its size and scale, geographical extent and duration/reversibility in accordance with GLVIA³, paragraph 5.48-52 that can be summarised as follows:
- Size or scale:
 - ▶ The size or scale of landscape change is described via a simple word scale to describe the extent or proportion of loss or addition of landscape elements, the degree to which the perceptual characteristics of the landscape may be altered and whether the effect changes the key characteristics, critical to its distinctive character overall.
 - Geographical extent:
 - ▶ The geographical extent of the effect is distinct from the size and scale of effect. There may for example be a medium loss of landscape elements affecting a large geographical area, or a high-level addition of a proposed development affecting a very localised area, both resulting in a high magnitude of landscape change. The geographical extent is described at a

site level within the development site boundary, within the immediate setting of the site, at the scale of the landscape character type or area assessed or on a larger scale, affecting several landscape character types or areas.

- Duration and reversibility:
 - ▶ In accordance with GLVIA3¹ this is a separate, but linked consideration and the duration of an effect may be described as temporary (short term 0-5 years, medium term 5-10 years or long term 10-20 years) or permanent. A proposed development may also be considered in terms of whether the effects are reversible.

1.1.15 Examples and further guidance on the evaluation of the magnitude of landscape change are described in **Table 9A.4**.

Table 9A.4 Magnitude of landscape change

Magnitude of landscape change	Key determining criteria
High	<p>A large-scale change that may include the loss of key landscape elements/characteristics or the addition of new uncharacteristic features or elements that would alter the perceptual characteristics of the landscape.</p> <p>The size or scale of landscape change could create new landscape characteristics and may change the overall distinctive landscape quality and character, typically, but not always affecting a larger geographical extent.</p>
Medium	<p>A medium scale change that may include the loss of some key landscape characteristics or elements, or the addition of some new uncharacteristic features or elements that could alter the perceptual characteristics of the landscape.</p> <p>The size or scale of landscape change could create new landscape characteristics and may lead to a partial change in landscape character, typically, but not always affecting a more localised geographical extent.</p>
Low	<p>A small-scale change that may include the loss of some landscape characteristics or elements of limited characterising influence, or the addition of some new features or elements of limited characterising influence. They may be a small partial change in landscape character, typically, but not always affecting a localised geographical extent.</p>
Negligible	<p>A very small-scale change that may include the loss or addition of some landscape elements of limited characterising influence. The landscape characteristics and character would be unaffected.</p>

1.1.16 The landscape assessment also identifies designated landscapes or landscape character areas where no landscape change is predicted. For these landscape receptors, 'No Change' has been inserted into the magnitude of change column of the assessment tables and the resulting level of effect identified as 'None'. This commonly occurs where no intervisibility (presence of a line of sight between two locations) or other perceptual effects pathway exists between the landscape receptor and the Proposed Development.

Types of landscape effect

1.1.17 In accordance with the *Town and Country Planning (Environmental Impact Assessment) Regulations 2017*⁶ (the *EIA Regulations*), the level of landscape effect is also described in terms of:

- Whether the effect would be permanent or temporary (in relation to temporary effects the duration of the effect will be important);

⁶ The Town and Country Planning (Environmental Impact Assessment) Regulations 2017, [online]. Available at: <http://www.legislation.gov.uk/uk/si/2017/571/contents/made> [Checked 27/07/2018].

- Whether the effect would be direct or indirect (where direct effects are associated with loss or alteration of individual landscape elements or changes to the physical fabric of a landscape designation or landscape character area and where indirect effects are associated with changes to surrounding landscape character via a visual or another perceptual effects pathway); and
- Whether the effect is judged to be positive (beneficial), neutral or negative (adverse).

1.1.18 The factors influencing judgements of whether effects are positive, neutral or negative and a consideration of cumulative effects are provided in **Section 9.20**. In describing the level of landscape effects, the assessment text clearly and transparently sets out the professional judgements that have been made in determining sensitivity and how the value and susceptibility of the receptor has been assessed; and in determining magnitude and how the size and scale, geographical extent and duration of the effect has been taken into account.

1.2 Visual effects

1.1.19 Visual effects are concerned wholly with the effect of the proposed development on views and visual amenity and are defined in *GLVIA3*¹, paragraph 6.1 as follows:

"An assessment of visual effects deals with the effects of change and development on views available to people and their visual amenity. The concern ... is with assessing how the surroundings of individuals or groups of people may be specifically affected by changes in the context and character of views."

1.1.20 Visual effects are identified for different receptors (people) who will experience the view at their place of residence, within their community, during recreational activities, at work, or when travelling through an area.

1.1.21 The level of visual effect (and whether this is significant) is determined through consideration of the 'sensitivity' of each visual receptor (or range of sensitivities for receptor groups) and the 'magnitude of change' that would be brought about by the construction and operation of the proposed development. Visual assessment unavoidably involves a combination of both quantitative and subjective assessment and wherever possible a consensus of professional opinion is sought through consultation and internal peer review.

Evaluating visual sensitivity to change

1.1.22 In accordance with paragraphs 6.31-6.37 of *GLVIA3*¹, the sensitivity of visual receptors takes account of the susceptibility of the receptor to visual change and the value of the baseline view available to them. The sensitivity of visual receptors is described as high, medium or low. The main factors influencing the susceptibility of a visual receptor to change are the occupation or activity of the receptor (people) at particular locations and the extent to which their attention or interest may therefore be focused on the available view.

1.1.23 The visual receptors most susceptible to change are likely to include:

- People at their place of residence;
- People engaged in outdoor recreation whose attention or interest is likely to be focussed on the landscape and on particular views;
- Visitors to heritage assets or other attractions where views of the surroundings are likely to make an important contribution to their experience; and

- People in their community where views contribute to their experience (e.g. users of public open spaces).
- 1.1.24 People using the transport network are usually considered to be moderately susceptible to change unless travelling on recognised scenic routes.
- 1.1.25 Visual receptors likely to be less susceptible to change include:
- People engaged in outdoor recreation that does not depend upon appreciation of views; and
 - People at their place of work where views are not an important contributor to the quality of working life.
- 1.1.26 The factors influencing judgements regarding the value attached to views by receptors include:
- Any recognition of the value attached to a view in relation to heritage assets or through planning designations; and
 - Any indications of value provided by guidebooks and tourist literature, the inclusion of specific viewpoints on Ordnance Survey (OS) maps, provision of car parking and/or provision of interpretation materials.
- 1.1.27 Examples of the judgements made regarding the sensitivity of visual receptors used in this assessment are described in **Table 9A.5**.

Table 9A.5 Visual receptor sensitivity

Visual receptor sensitivity	Key determining criteria
High	<p>Receptors in this category would generally include residents, tourists/visitors, walkers, cyclists and horse riders, either stationary or travelling through the landscape, and/or undertaking outdoor recreational activities where the focus of the activity involves an appreciation of the landscape:</p> <ul style="list-style-type: none"> ● Residential properties or settlements and related community outdoor spaces; ● Outdoor tourist and visitor attractions; ● Recreational routes (national trails, long distance footpaths and Public Rights of Way (PRoWs); Sustrans national cycle routes (NCR) and regional cycle routes (RCR); open access land/beaches and recognised scenic driving routes; and ● People generally, undertaking recreational activity where the focus of the activity involves an appreciation of the landscape (especially within internationally or nationally designated landscapes).
Medium	<p>Receptors in this category would generally include people travelling through the landscape on road, rail or other transport routes as rail passengers and road users and people undertaking recreational and sporting activities where it is likely that their surroundings have some influence upon their enjoyment (e.g. angling and golfing).</p>
Low	<p>Receptors in this category would generally include people for whom their surroundings are unlikely to be a primary concern or affect how they undertake their current activity. Receptors are likely to include people at their place of work, people travelling on main roads through built up areas, dual-carriageways or motorways or taking part in activities not involving an appreciation of the landscape (e.g. playing team sports).</p>

Evaluating the magnitude of change to the view

- 1.1.28 The magnitude of visual change is described as high, medium, low, or negligible which is in accordance with the guidance on the use of 'word scales' provided in Paragraph 3.27 of GLVIA3¹. In any instances where a proposed development would not be visible, due to screening, then this is

also recorded as 'No Change' in the magnitude of change column of the visual assessment tables and the resulting level of visual effect identified as 'None'.

1.1.29

The magnitude of visual change is assessed taking into account the composition of the visual baseline and is described by reference to the size and scale, geographical extent and duration/reversibility of a proposed development in accordance with GLVIA3¹ as follows:

- Size and scale:
 - ▶ Scale of change: The scale of change in the view is determined by the loss or addition of features in the view and changes in the composition and extent of view affected. This can in part be described objectively by reference to the numbers and scale of new objects visible and the horizontal/vertical field of view that these new objects will occupy. Other descriptors such as 'dominant', 'prominent', 'noticeable' and 'negligible' can also be used to describe the scale of change.
 - ▶ Contrast: The degree of contrast or integration that will be generated by the introduction of any new features or changes in the view that will arise with the existing or remaining visual elements and characteristics in terms of form, scale, mass, line, height, colour and texture. Developments which contrast or appear incongruous in terms of colour, scale and form are likely to be more visible and result in the generation of a higher magnitude of change.
 - ▶ Speed: The speed at which a proposed development may be viewed will affect how long the view is experienced (continuously, intermittently, glimpsed or repeatedly and sequentially along a route) and the likelihood of the proposed development being noticed by people travelling in cars or trains compared to those who may be walking/riding/cycling and able to stop and 'take in' a view.
 - ▶ Screening: A proposed development may be wholly or partly screened by landform, vegetation (including seasonal effects due to hedgerow management and seasonal variations in deciduous leaf cover) and/or buildings. Conversely visual receptors with open views, particularly from landscapes where such views are a key characteristic, are likely to be able to see a greater proportion of the proposed development.
 - ▶ Skyline/background: Whether a proposed development would be viewed against the skyline or a background landscape may affect the level of contrast and magnitude, for example, skyline developments may be more noticeable, particularly where they affect open and uninterrupted horizons.
- Geographical extent:
 - ▶ Distance: The separation distance from a proposed development can be measured objectively. Distance often provides a strong indicator of the magnitude of visual change, subject to any intervening screening of the proposed development by landform, vegetation, or buildings.
 - ▶ Angle of view: The angle of view may be considered in terms of whether a proposed development will be seen directly in front of a visual receptor or if it will be seen more obliquely. Road users are generally more aware of the views in their direction of travel, whilst train passengers are more aware of views perpendicular to their direction of travel. Elevated views are likely to reveal more of a proposed development, whereas low level views are more likely to be screened by intervening built form and vegetation.
 - ▶ Geographical extent of area over which the changes would be visible. This can be defined by the distance, area and the horizontal and vertical field of view affected.

- Duration and reversibility:
 - ▶ In accordance with GLVIA3¹ this is a separate, but linked consideration and the duration of any visual effect may be described as temporary (short term 0-5 years, medium term 5-10 years or long term 10-20 years) or permanent. The proposed development may also be considered in terms of whether the effects are reversible.

1.1.30 Further guidance on the evaluation of the magnitude of visual change is provided in **Table 9A.6**.

Table 9A.6 Magnitude of visual change

Magnitude of visual change	Key determining criteria
High	A large and prominent change to the view, appearing in the fore to middle ground and involving the loss/addition of a number of features, which is likely to have a strong degree of contrast and benefits from little or no screening. The view is likely to be experienced at static or low speed and is more likely to be continuously/sequentially visible from a route.
Medium	A moderate and prominent/noticeable change to the view, appearing in the middle ground and involving the loss/addition of features and a degree of contrast with the existing view. There may be some partial screening. The view is likely to be experienced at static or low to medium speed and is more likely to be intermittently or partially visible from a route.
Low	A noticeable or small change, affecting a limited part of the view that may be obliquely viewed or partly screened and/or appearing in the background of the view. This category may include rapidly changing views experienced from fast-moving road vehicles or trains.
Negligible	A small or negligible change to the view that may be obliquely viewed and mostly screened and/or appearing in the distant background or viewed at high speed over short periods and capable of being missed by the casual observer.

Types of visual effect

1.1.31 In accordance with the *EIA Regulations*⁶, the level of visual effect is also described in terms of:

- Whether the effect would be permanent or temporary (in relation to temporary effects the duration of the effect will be important);
- Whether the effect results from a change to:
 - ▶ An existing static view;
 - ▶ Sequential views; or
 - ▶ Wider visual amenity;
- Whether the effect is a result of the introduction of new development or the loss of elements or features already present in the view; and
- Whether the effect is judged to be positive (beneficial), neutral or negative (adverse).

1.1.32 The factors influencing judgements of whether effects are positive, neutral or negative are provided in paragraph 1.1.34.

1.1.33 In describing the level of visual effect, the assessment text clearly and transparently sets out the professional judgements that have been made in determining visual sensitivity and how the value and susceptibility of each visual receptor has been assessed; and in determining magnitude of

visual change how the size and scale, geographical extent and duration of the effect have been taken into account.

1.3 Evaluating positive, neutral and negative effects

1.1.34 It is necessary for the assessment for each landscape and visual receptor to evaluate whether the effects identified and assessed would be positive (beneficial), neutral or negative (adverse) i.e. to determine the type or valency of the effect. The default evaluation for a new development is often negative. However, not all change, including high levels of change, is necessarily negative. The LVIA considers architectural and aesthetic factors such as the visual composition of the landscape and/or townscape in the receptor's view together with a proposed development. A proposed development may or may not be reasonably accommodated within the scale and character of the landscape as seen from the receptor location as follows:

- Positive or beneficial effects would include landscape mitigation and enhancement, combined with good landscape and architectural design quality resulting in a proposed development that can be reasonably well accommodated within the scale and landscape setting or context and/or which can be reasonably assessed as enhancing a visual receptor's view;
- Neutral visual effects include changes that neither add nor detract from the quality and character of an area or view including development that appears reasonably well accommodated within the scale and setting or context and includes negligible magnitudes of change; and
- Negative effects are likely to result from poor design quality such as the scale of the proposed development relative to the underlying landscape scale and landscape setting or context, or other visual factors that may reduce scenic quality, such that the development may appear dominating, over intrusive, overbearing, or oppressive for example.

1.1.35 The identification of negative landscape and/or visual effects can be used to formulate more effective mitigation and lead to the reduction in residual effects.

1.4 Cumulative landscape and visual effects

1.1.36 The assessment of cumulative landscape or visual effects is essentially the same as for the assessment of the primary or 'stand-alone' landscape or visual effects, in that the level of effect is determined by assessing the sensitivity of the receptor and the magnitude of change, although the cumulative assessment considers the magnitude of change posed by multiple developments. Chapter 7 of *GLVIA3*¹ notes that this is an evolving area of practice, but provides the following definitions sourced from the most recent established guidance⁷ which although written primarily in response to wind farm development is also pertinent for other types of development:

- Cumulative effects are defined as "*the additional changes caused by a proposed development in conjunction with other similar developments or as the combined effect of a set of developments taken together*".

1.1.37 Types of cumulative landscape or visual effect can be further defined as follows:

- Coincidental effects experienced from a single location as follows:

⁷ Scottish Natural Heritage (2012). Guidance: Assessing the Cumulative Impact of Onshore Wind Energy Developments. Inverness. Scottish Natural Heritage.

- ▶ Simultaneous or combined: where two or more developments may be viewed from a single fixed viewpoint simultaneously, within the viewer's field of view and without requiring them to turn their head;
- ▶ Successive or repetitive: where two or more developments may be viewed from a single viewpoint successively as the viewer turns their head or swivels through 360°; and
- Sequential: where a number of developments may be viewed sequentially or repeatedly at increased frequency, from a range of locations when travelling along a route within the study area.

1.5 Significance evaluation methodology

1.1.38

The level of landscape and visual effects is determined with reference to landscape or visual sensitivity and the magnitude of landscape or visual change experienced. For each receptor the evaluation process is informed by use of a matrix as in **Table 9A.7** that sets out the level of effects and whether this is significant or not significant.

Table 1A.7 Matrix of EIA Significance

Magnitude of Change	Sensitivity of Receptor		
	High	Medium	Low
High	Major (Significant)	Major (Significant)	Moderate (Possibly Significant)
Medium	Major (Significant)	Moderate (Possibly Significant)	Minor (Not significant)
Low	Moderate (Possibly Significant)	Minor (Not significant)	Negligible (Not significant)
Negligible	Minor (Not significant)	Negligible (Not significant)	Negligible (Not significant)

1.1.39

In line with the emphasis placed in *GLVIA3*¹ upon application of professional judgement, an overly mechanistic reliance upon a matrix as presented in **Table 9A.7** is avoided through the provision of clear and accessible narrative explanations of the rationale underlying the assessment made for each landscape and visual receptor. Such narrative assessments provide a level of detail over and above the outline assessment provided by use of the matrix alone. Wherever possible cross references are made to baseline figures and/or to photomontage visualisations to support the rationale. The matrix as presented in **Table 9A.7** should therefore be considered as a guide and any deviation from this guide is clearly explained in the assessment rationale.

Appendix 9B

Landscape character area sensitivity assessments

1. Introduction

1.1 Overview

- 1.1.1 The sensitivity assessment for landscape character has been undertaken in accordance with the methodology presented in **Chapter 9: Landscape and Visual Impact Assessment**.
- 1.1.2 The sensitivity assessments have been undertaken for those Landscape Character Areas (LCAs) which lie within the Landscape and Visual Impact Assessment (LVIA) study area for the Proposed Development and where the Zone of Theoretical Visibility (ZTV) or the proximity of the LCA to Bristol Airport indicates the potential for landscape effects to occur. The LCAs are shown in **Figure 9.38** (for North Somerset and Bath and North East Somerset) and **Figure 9.39** (for the Mendip Hills Area of Outstanding Natural Beauty (AONB)). Those for which a landscape sensitivity assessment has been completed are as follows:
- North Somerset LCAs:
 - ▶ E1: Mendip Ridges and Combes LCA;
 - ▶ E6: Cleeve Ridge LCA;
 - ▶ G1: Broadfield Down Settled Limestone Plateau LCA;
 - ▶ H1: Dundry Settled Hill LCA; and
 - ▶ J3: Chew Rolling Valley Farmland LCA.
 - Bath and North East Somerset LCAs:
 - ▶ 1: Thrubwell Farm Plateau LCA;
 - ▶ 2: Chew Valley LCA; and
 - ▶ 4: Mendip Slopes LCA.
 - Mendip Hills AONB LCAs:
 - ▶ The Northern Slopes LCA;
 - ▶ The Blagdon-Compton Martin LCA; and
 - ▶ The Plateau LCA.
- 1.1.3 Landscape sensitivity is described as '*high*', '*medium*' or '*low*'. This is assessed by taking into account the landscape value and landscape susceptibility to change, which may vary in response to both the type of development proposed and the specific characteristics of the study area, such that landscape sensitivity needs to be considered on a case by case basis.

2. Sensitivity Assessments

2.1 North Somerset LCAs

Table 9B.1 Landscape Sensitivity Assessment: E1: Mendip Ridges and Combes

Landscape Character Area: E1: Mendip Ridges and Combes		
LVIA photographic viewpoint locations within the LCA: 15, 16 and 18 (see Figure 9.5)		
Direct landscape effects: None		Indirect landscape effects: Development of Bristol Airport
Key Characteristics (as defined in the <i>North Somerset Council Landscape Character Assessment Update (2018)</i> ¹)		
<ul style="list-style-type: none"> • "High ridges of Carboniferous Limestone with gentler lower slopes of Mercia Mudstone; • Steep scarp slopes clothed in broad leaved and mixed woodland forming distinctive backdrop to the surrounding low-lying areas; • Dramatic combes form routes for winding rural roads, often with exposed geology of grey Limestone; • Lower slopes under pasture in fields bounded by hedgerows; • Open grassland plateaus at the summits of the ridges at Bleadon Hill and forming part of the Mendip upland to the east; • Drystone walls on the high plateau with large rectangular fields of post medieval enclosure; • Disused quarries with exposures of Limestone; • Considerable ecological value with unimproved calcareous grassland, semi-natural broad-leaved woodland, much of which is ancient, and limestone heath; • Sparse settlement with a few scattered stone farmsteads on the plateau and lower ridges, villages centred on historic stone churches on the lower slopes following the lines of roads; • 20th century infill and ribbon development around some villages and rising up Bleadon Hill to the west with associated conifer shelter belts; and • Rich heritage of historic landscape features particularly on the tops of the ridges, notably the Bronze Age hill fort on Banwell Hill." 		
Value criteria	Commentary	Value
Landscape designations	This majority of this LCA lies within the Mendip Hills AONB.	High
Condition/quality	Overall, landscape features are in good condition as recognised in the <i>North Somerset Council Landscape Character Assessment Update</i> ¹ , which notes that "The Mendip Ridges and Combes are generally in good condition..... A few elements are declining, notably the drystone walls of the high ground." The LCA displays a strong character with positive features and the landscape strategy for Mendip Ridges and Combes is to conserve and restore.	High
Scenic quality	Scenic quality is high. There are wide views from the elevated land to the sea, to the Moors, and over the river valleys to the other limestone ridges to the north.	High
Rarity	This LCA forms part of the unique natural landscape of the Mendip Hills AONB and contains features and characteristics including rock outcrops and gorges, caves, ancient woodland, heritage sites and views which are all cited as being amongst the special qualities which define the AONB.	High
Conservation interests	The area of LCA within the study area is rich in nature conservation designations including Dolebury Warren, Burrington Combe and Banwell Ochre Caves Sites of Special Scientific Interest (SSSI) and the North Somerset and Mendip Bats Special Area of Conservation (SAC).	High

¹ Wardell Armstrong for North Somerset Council (2018). North Somerset Council Landscape Character Assessment Update March 2018.

Landscape Character Area: E1: Mendip Ridges and Combes

	In terms of heritage designations, there are four scheduled monuments present including hillforts at Dolebury Camp, Banwell Camp and Burrington Ham and Aveline's Hole, Burrington Combe. There are also several clusters of listed buildings at Blagdon, Rickford and Burrington as well as along Bath Road. There are no registered parks and gardens.	
Recreation value	There are areas of open access land within this LCA, which is also traversed by the Limestone Link promoted route.	Medium
Perceptual aspects	The Mendip Ridges and Combes are cited in the <i>North Somerset Council Landscape Character Assessment Update</i> ² as being highly rural and peaceful. The Campaign for the Protection of Rural England's (CPRE) <i>Tranquillity Mapping</i> ² for South West England (Figure 9.40) shows that the visual and audible influence of traffic along the section of A368, A38 and B3134, which pass through this LCA, disrupt levels of tranquillity and remoteness on a local level.	Medium to High
Associations	<p>C. H. Sisson wrote a poem entitled Burrington Combe and the local area, including Black Down, features prominently in his poetry.</p> <p>A local tradition (although unsubstantiated) holds that Augustus Montague Toplady wrote the hymn "Rock of Ages" after seeking shelter under a large rock at Burrington Combe. The rock was subsequently named after the hymn and is denoted on OS mapping.</p>	Medium
Overall value	The overall value is deemed to be High.	High
Susceptibility commentary (to the Proposed Development)		Susceptibility
Physical characteristics:		N/A
There would be no physical changes to this LCA as a result of the Proposed Development.		
Visual characteristics:		High to Medium
Intervisibility within this LCA can be variable, with the extensive woodland, which is a key feature of this landscape, restricting intervisibility to glimpsed views; whilst from the open elevated land there are wide panoramic views over the landscape to the north. The <i>North Somerset Council Landscape Character Assessment Update</i> ² seeks to minimise the encroachment of visually intrusive land uses. Some movement within the landscape is present across the northern fringes of this LCA as a consequence of its proximity to the busy A368, A38 and B3134. Levels of radiance, as indicated by CPRE's <i>Night Blight</i> mapping (Figure 9.41) is generally towards the lower end of the spectrum (i.e. low levels of light pollution) with more moderate levels occurring towards the western end of the LCA at Sandford Hill and the northern fringes, as a consequence of the proximity to the settlements of Sandford, Churchill, Langford and Banwell.		
Perceptual characteristics:		High to Medium
This is a landscape which displays high levels of tranquillity, remoteness and naturalness with the <i>North Somerset Council Landscape Character Assessment Update</i> ² seeking to "conserve the peaceful and secluded nature of the landscape". The visual and audible influence of traffic along the section of A368, A38 and B3134 which pass through this LCA locally disrupt levels of tranquillity and remoteness along their corridors. The area also has a strong sense of time depth.		
Overall susceptibility	The overall susceptibility is deemed to be high to medium	High to Medium
Overall sensitivity	Susceptibility	
	High	Medium
		Low
Value	High	High
		Medium

² Campaign to Protect Rural England (2007). Tranquil Places, [online]. Available at: www.cpre.org.uk/resources/countryside/tranquil-places [Checked 12/03/18].

Landscape Character Area: E1: Mendip Ridges and Combes

Medium	High	Medium	Low
Low	Medium	Low	Low

Overall Sensitivity to the Proposed Development

The overall value of this LCA is High. The overall susceptibility is judged to be High to Medium indicating a **High** overall sensitivity.

Table 9B.2 Landscape Sensitivity Assessment: E6: Cleeve Ridge

Landscape Character Area: E6: Cleeve Ridge

Landscape and Visual Impact Assessment (LVIA) photographic viewpoint locations within the LCA: None (see Figure 9.5)

Direct landscape effects: None

Indirect landscape effects: Development of Bristol Airport

Key Characteristics (as defined in the *North Somerset Council Landscape Character Assessment Update*¹)

- "Elevated ridges of Carboniferous Limestone, with lower flanks of Mercia Mudstone;
- Steep escarpment slopes form a distinctive feature rising above, and creating the backdrop to, the low-lying moors and valleys;
- Wooded, with large-scale mixed and deciduous plantations, plus extensive areas of ancient woodland;
- Hidden, deep wooded combes/gorges extend into the scarp slopes providing important historic routeways, and now steep, winding rural lanes;
- Intimate, enclosed wooded landscape counterbalanced by occasional dramatic and surprising views out;
- Small limestone quarries and workings;
- Largely inaccessible with only a few rural roads winding through combes up the ridge; and
- Areas of prehistoric enclosure including an Iron Age hill fort at Cadbury Congresbury."

Value criteria	Commentary	Value
Landscape designations	This LCA is not covered by a national (AONB/National Park) or regional/local landscape designation.	Low
Condition/quality	Overall, landscape features are in good condition as recognised in the <i>North Somerset Council Landscape Character Assessment Update</i> ¹ , which seeks to conserve the "peaceful and remote character of the area and its rich ecological, archaeological and geological heritage." The area exhibits a strong character of dramatic landform and large extent of mixed (and largely ancient) woodland dominating the upper slopes whilst areas of pasture and prehistoric remain on the lower slopes.	High
Scenic quality	Scenic quality is high with few detractive features.	High
Rarity	This is a distinctive landscape, but is not particularly valued or supported through designation.	Medium
Conservation interests	<p>A large proportion of the extensive woodland within this LCA is classified as ancient woodland with nature conservation designations including two SSSIs (King's Wood and Urchin Wood, and Goblin Combe) and the North Somerset and Mendip Bats SAC. Goblin Combe and Cleeve Heronry are both wildlife reserves, whilst Cadbury Hill is also a Local Nature Reserve.</p> <p>In terms of heritage designations, there are four scheduled monuments present within the study area including two hillforts at Cleeve Court, a third at Brockley Cottage and one at Cadbury Hill. There are also a number of listed building clusters at Redhill, Barrow Court and around Cleeve, as well as scattered more isolated Listed Buildings. Two registered parks and gardens also lie within the LCA: Barrow Court and Barley Wood.</p>	High

Landscape Character Area: E6: Cleeve Ridge

Recreation value	This LCA which is traversed by a short section of the Two Rivers Way promoted route and also by Regional Cycle Route 10. Beyond the promoted routes, the wildlife reserves are publicly accessible with car parking provided at Cadbury Hill. Goblin Combe Environment Centre provides educational training and residential facilities for visiting groups.	Medium		
Perceptual aspects	The Cleeve Ridge LCA is cited in the <i>North Somerset Council Landscape Character Assessment Update</i> ¹ as being a peaceful and secluded LCA, where the limited vehicular access to the area adds to the remote peaceful nature of the area. This is reflected in CPRE's <i>Tranquillity Mapping</i> ² for South West England (Figure 9.40), which indicates that within the woodland tranquillity levels are toward the most tranquil end of the spectrum. The visual and audible influence of traffic along the A370 on the western fringes and the A38 which bisects the southern spur of LCA are likely to disrupt levels of tranquillity and remoteness on a local level and this is reflected in the tranquillity patterns shown in Figure 9.40 .	High to Medium		
Associations	The contrast between the wooded combes and the wide view from the top of the ridge is well expressed by Coleridge in his poem <i>Lines</i> which was composed while climbing the left ascent of Brockley Coomb in 1795.	Medium		
Overall value	The overall value is deemed to be High.	High		
Susceptibility commentary (to the Proposed Development)		Susceptibility		
Physical characteristics: There would be no physical changes to this LCA as a result of the Proposed Development.		N/A		
Visual characteristics: Intervisibility from within this LCA is generally limited by the extensive woodland, which is a key feature of this landscape although there are occasional wide views out over the surrounding lower lying land to the north (i.e. away from Bristol Airport). The <i>North Somerset Council Landscape Character Assessment Update</i> ¹ notes that this LCA is sensitive to the "visual impact of unsympathetic urban edges and urban fringe influences within the immediately adjacent landscapes". Some movement within the landscape is present across the northern fringes of this LCA, as a consequence of its proximity to the A370. Levels of radiance, as indicated by CPRE's <i>Night Blight</i> ³ mapping (Figure 9.41) are generally towards the lower end of the spectrum, with the settlements of Yatton, West Town and Blackwell giving rise to more moderate levels of radiance across neighbouring areas of landscape.		Medium		
Perceptual characteristics: This is a landscape which displays high levels of tranquillity, remoteness and naturalness, with the <i>North Somerset Council Landscape Character Assessment Update</i> ¹ seeking to "conserve the peaceful and remote character of the area". The area also has a strong sense of time depth.		High		
Overall susceptibility	The overall susceptibility is deemed to be High.	High		
Overall sensitivity				
Susceptibility				
	High	Medium	Low	
Value	High	High	Medium	
	Medium	High	Medium	Low
	Low	Medium	Low	Low
Overall Sensitivity to the Proposed Development				

³ Campaign to Protect Rural England (2016). England's Light Pollution and Dark Skies – Map, [online]. Available at: www.cpre.org.uk/nightblight/maps [Checked 12/03/18].

Landscape Character Area: E6: Cleeve Ridge

The overall value of this LCA is high. The overall susceptibility is judged to be high indicating a **High** overall sensitivity.

Table 9B.3 Landscape Sensitivity Assessment: G1: Broadfield Down Settled Limestone Plateau

Landscape Character Area: G1: Broadfield Down Settled Limestone Plateau

LVIA photographic viewpoint locations within the LCA: 1 to 14 (see Figure 9.5)

Direct landscape effects: Development of Bristol Airport

Indirect landscape effects: Development of Bristol Airport

Key Characteristics (as defined in the North Somerset Council Landscape Character Assessment Update¹)

- "Flat to gently undulating elevated broad plateau extending from the summits of the limestone escarpments;
- Underlying Carboniferous Limestone geology;
- Open and exposed landscape with distant views to lowland and wooded ridges;
- Mixed and coniferous plantation woodland belts and clumps (some of ancient woodland), the most substantial of which are to the north of the area;
- Remnant areas of grasslands of ecological value such as the unimproved calcareous and acid grassland at Felton Common;
- Large rectilinear fields enclosed by low hedges;
- Bristol Airport (which has undertaken considerable expansion in recent years) with the associated modern terminal buildings and infrastructure, particularly prominent along the A38, dominates the central section of the area;
- Settlement is limited to isolated farmsteads, nucleated villages and, along the A38, development of a more urban character;
- Fairly inaccessible away from the A38, with few rural roads crossing the area. Near to the airport increased signage and road markings give the small roads a more urban feel;
- Increased lighting at the airport impacts on rural character and night skies; and
- Several working and disused quarries."

Value criteria	Commentary	Value
Landscape designations	This LCA lies within a non-designated landscape.	Low
Condition/quality	The condition of the Broadfield Down Settled Limestone Plateau Character Area is judged as declining in the North Somerset Council Landscape Character Assessment Update due to "the poor management of the field boundaries and the effects of the pressure on the area from airport infrastructure." The assessment cites the airport as disrupting the character of the Area with a lack of unity or distinct patterns of features leading to a moderate strength of character. The landscape strategy for this LCA (as defined in the North Somerset Council Landscape Character Assessment Update ¹) is to conserve and enhance.	Medium to Low
Scenic quality	Bristol Airport has an existing influence upon the scenic quality of this LCA with the runway and taxiways creating a wide and exposed central area which contrasts with the intense activity around the outer edges, all of which have an urbanising effect on the village of Lulsgate Bottom. To the north, west and far south of the Proposed Development the area becomes more rural and remote with increased tree cover.	Medium to Low
Rarity	This is a landscape which contains few distinctive landscape features and the predominantly agricultural land use is extensive on a regional scale.	Low
Conservation interests	In terms of nature conservation designations, Felton Common is a Local Nature Reserve whilst on a national level, a small SSSI is present at Lulsgate Quarry as well as at Hartcliff Rocks Quarry. Cultural heritage designations include a single listed building (Grade II) at Feltham Farm and a cluster of scheduled monuments (four bowl barrows) on land to the east of the A38, close to Quarry Farm. Two other scheduled monuments are present to the west of the A38; a long barrow on Redhill and a long barrow southwest of Cornerpool Farm, south of Bristol Airport.	Medium

Landscape Character Area: G1: Broadfield Down Settled Limestone Plateau

Recreation value	Sustrans regional cycle route 10 passes through this LCA on a west-east alignment, to the north of Bristol Airport. Other recreational facilities include the Tall Pines Golf Course and a large area of open access land at Felton Common. Elsewhere the landscape is crossed by a moderate number of local public rights of way (PRoWs).	Medium		
Perceptual aspects	Reference to CPRE’s <i>Tranquillity Mapping</i> ² for South West England (Figure 9.40) shows a LCA within which tranquillity levels of towards the lower (least tranquil) end of the spectrum and influenced by both the airport and the busy A38, which provides the main route from Bristol to Bristol Airport. Generally, this is a busy landscape with high degrees of movement and human presence with a corresponding limited sense of remoteness.	Low		
Associations	There are no known art, literature or cultural associations within this LCA, beyond any local associations that are undocumented.	Low		
Overall value	The overall value is deemed to be Medium to Low.	Medium to Low		
Susceptibility commentary (to the Proposed Development)		Susceptibility		
Physical characteristics: The hedgerows and areas of ancient woodland are the few physical characteristics which are sensitive to change. Similar development is already part of the baseline character of this LCA.		Medium		
Visual characteristics: The LCA is already influenced by comparable development within Bristol Airport which exerts a visual influence across the surrounding plateau landscape.		Low		
Perceptual characteristics: This is a landscape which is lacking in tranquillity and remoteness with high degrees of light intrusion within and immediately surrounding the airport, radiating out across the LCA.		Low		
Overall susceptibility	The overall susceptibility is deemed to be Low.	Low		
Overall sensitivity		Susceptibility		
		High Medium Low		
Value	High	High	High	Medium
	Medium	High	Medium	Low
	Low	Medium	Low	Low
Overall Sensitivity to the Proposed Development				
The overall value of this LCA is Medium to Low. The overall susceptibility is judged to be Low indicating a Low overall sensitivity.				

Table 9B.4 Landscape Sensitivity Assessment: H1: Dundry Settled Hill

Landscape Character Area: H1: Dundry Settled Hill		
LVIA photographic viewpoint locations within the LCA: None (see Figure 9.5)		
Direct landscape effects: None		Indirect landscape effects: Development of Bristol Airport
Key Characteristics (as defined in the <i>North Somerset Council Landscape Character Assessment Update</i> ¹)		
<ul style="list-style-type: none"> • "Elevated hill from 100m to 233m AOD based on Blue Lias Limestone capped by Inferior Oolite; • Steeply sloping hillsides with many springs and streams which form small valleys; • Long views down to Bristol and the Severn Estuary; • Predominantly pastoral with some arable land use; • Traditional stone buildings and drystone walls (some in declining condition); • Hedges in varying condition and hedgerow trees of ash and yew; • Exposed open aspect emphasised by occasional low, wind formed trees; • Grasslands of nature conservation value including semi improved neutral grassland and unimproved calcareous grassland; • Nucleated villages and farmsteads of local stone with infill of modern brick and render; • Tall church tower at Dundry forms a significant landmark; • Concentration of communications masts at the summit; and • Rural roads with dramatic views and some ribbon development at Dundry designed to benefit from these." 		
Value criteria	Commentary	Value
Landscape designations	This LCA lies within a non-designated landscape.	Low
Condition/quality	Condition is judged in the North Somerset Council <i>Landscape Character Assessment Update</i> ¹ as declining due to the "highly variable maintenance of the hedgerows, from gappy to overgrown and the deteriorating drystone walls". This, allied with a moderate strength of character (derived from its strong topography and views but weaker elements of mixed land use, the proliferation of masts, infill and ribbon development) combine to lead to a landscape strategy of conserve and enhance.	Medium
Scenic quality	From this high area there are wide views over the surrounding low land. The masts on the summit of Dundry Hill are prominent vertical elements and may be regarded by some to be visual detractors.	Medium
Rarity	This is a distinctive landscape but is not particularly valued or supported through designation.	Medium
Conservation interests	This LCA is host to two small, nationally designated SSSIs: Barns Baton Spinney and Dundry Main Road South Quarry. In terms of cultural heritage designations, ten Listed Buildings are present outside of the settlement of Dundry.	Medium
Recreation value	Two promoted long-distance routes pass through this LCA. Monarch's Way passes north-south through the western fringes of the area, whilst the Community Forest Path connects with the Monarch's Way west of Dundry and continues in an easterly direction, through the settlement towards East Dundry and beyond. A moderate number of local PRoWs also traverse the landscape, including those that comprise the locally promoted Dundry Hill Walk.	High
Perceptual aspects	Reference to CPRE's <i>Tranquillity Mapping</i> ² for South West England (Figure 9.40) shows a LCA within which tranquillity levels of towards the lower (least tranquil) end of the spectrum and influenced the proximity of the northern half of this LCA to Bristol. South of Dundry, tranquillity levels are more moderate.	Medium to Low
Associations	There are no known art, literature or cultural associations within this LCA, beyond any local associations that are undocumented.	Low
Overall value	The overall value is deemed to be Medium.	Medium

Landscape Character Area: H1: Dundry Settled Hill

Susceptibility commentary (to the Proposed Development)			Susceptibility
Physical characteristics: There would be no physical changes to this LCA as a result of the Proposed Development.			N/A
Visual characteristics: The elevated land within this LCA provides intervisibility with adjacent low-lying landscapes in which Bristol Airport is already a component of the long views. Some visual enclosure is present within the small valleys, whilst the masts close to the summit of the hill are prominent visual components. CPRE's <i>Night Blight</i> ³ mapping indicates moderately low levels of radiance across this LCA.			Medium
Perceptual characteristics: CPRE's <i>Tranquillity Mapping</i> ² for South West England (Figure 9.40) indicates a LCA within which tranquillity levels of towards the lower (least tranquil) end of the spectrum and influenced the proximity of the northern half of this LCA to Bristol.			Medium
Overall susceptibility	The overall susceptibility is deemed to be Medium.		Medium
Overall sensitivity		Susceptibility	
		High	Medium Low
Value	High	High	High Medium
	Medium	High	Medium Low
	Low	Medium	Low Low
Overall Sensitivity to the Proposed Development The overall value of this LCA is Medium. The overall susceptibility is judged to be Medium indicating a Medium overall sensitivity.			

Table 9B.5 Landscape Sensitivity Assessment: J3: Chew Rolling Valley Farmland

Landscape Character Area: J3: Chew Rolling Valley Farmland		
LVIA photographic viewpoint locations within the LCA: None (see Figure 9.5)		
Direct landscape effects: None		Indirect landscape effects: Development of Bristol Airport
Key Characteristics (as defined in the <i>North Somerset Council Landscape Character Assessment Update</i> ¹)		
<ul style="list-style-type: none"> • "Underlying Mercia Mudstone geology; • Small to medium scale rural, peaceful, and in places, remote landscape; • Rolling landform with some steep slopes and knolls formed by the River Chew and its tributaries; • Wet pastoral landscape with intermittent views to enclosing wooded ridges; • Fields bounded by thick hedges with hedgerow trees; • Complex network of winding rural roads and deep sunken lanes; • Occasional belts and clumps of wet woodland and small farm orchards; and • Nucleated village of Winford on higher ground and numerous isolated traditional stone and render farmsteads." 		
Value criteria	Commentary	Value
Landscape designations	This LCA lies within a non-designated landscape.	Low
Condition/quality	The Chew Rolling Valley Farmland is considered to be in good condition, with an intact network of hedgerows framing pastoral fields, rural lanes and stone farmsteads. The LCA has an intact character which exhibits a number of the positive key characteristics of Rolling Valley Farmland Landscape Type. The <i>North</i>	High

Landscape Character Area: J3: Chew Rolling Valley Farmland

Somerset Council Landscape Character Assessment Update ¹ seeks to conserve the "peaceful rural ambiance."				
Scenic quality		This is a rural landscape of moderate aesthetic appeal with some minor detracting features such as abrupt village edges.	High	
Rarity		This is a pastoral landscape which is common on a regional level.	Low	
Conservation interests		Nature conservation designations within this LCA include Plaster's Green Meadows SSSI. In terms of cultural heritage, 13 Listed Buildings area present in the landscape, including four at the Littleton gunpowder works at Powdermill Farm, which is also designated as a Scheduled Monument.	Medium	
Recreation value		Two promoted long-distance routes pass through this LCA; Monarch's Way which runs north-south through the LCA and the Limestone Walk which passes east-west through the southern half of the LCA. Sustrans Regional Cycle Route 10 also traverses this LCA.	Medium	
Perceptual aspects		The North Somerset Council Landscape Character Assessment Update ¹ cites this LCA as being a "peaceful pastoral landscape". CRPE's Tranquillity Mapping ² for South West England (Figure 9.40) shows a landscape of moderate tranquilly with traffic along the B3130 and vehicles using the dense network of rural lanes locally disrupting levels of tranquillity and reducing the perception of remoteness. Away from the road network there is a greater sense of remoteness and tranquillity.	Medium	
Associations		There are no known art, literature or cultural associations within this LCA, beyond any local associations that are undocumented.	Low	
Overall value		The overall value is deemed to be Medium.	Medium	
Susceptibility commentary (to the Proposed Development)			Susceptibility	
Physical characteristics: There would be no physical changes to this LCA as a result of the Proposed Development.			N/A	
Visual characteristics: The rolling landform within this LCA, allied with a prevalence of hedgerows trees and small woodlands, combine to offer some visual containment within this landscape with limited intervisibility with adjacent LCAs. CPRE's Night Blight ³ mapping indicates moderately low levels of radiance across this LCA.			Medium	
Perceptual characteristics: CRPE's Tranquillity Mapping ² for South West England (Figure 9.40) shows a landscape of moderate tranquilly, although across the landscape, away from the road network, there is a greater sense of remoteness and tranquillity.			Medium	
Overall susceptibility		The overall susceptibility is deemed to be Medium	Medium	
Overall sensitivity		Susceptibility		
		High	Medium	Low
Value	High	High	High	Medium
	Medium	High	Medium	Low
	Low	Medium	Low	Low
Overall Sensitivity to Proposed Development				
The overall value of this LCA is Medium. The overall susceptibility is judged to be Medium indicating a Medium overall sensitivity.				

2.2 Bath and North East Somerset LCAs

Table 9B.6 Landscape Sensitivity Assessment: 1: Thrubwell Farm Plateau

Landscape Character Area: 1: Thrubwell Farm Plateau		
LVIA photographic viewpoint locations within the LCA: None (see Figure 9.5)		
Direct landscape effects: None		Indirect landscape effects: Development of Bristol Airport
Key Characteristics (as defined in the <i>Rural Landscapes of Bath and North East Somerset, A Landscape Character Assessment</i> ⁴)		
<ul style="list-style-type: none"> • "Clipped hedges which are often 'gappy' and supplemented by sheep netting; • Late 18th and early 19th century rectilinear field layout at north of area; • Occasional groups of trees; • Geologically complex; • Well drained soils; • Flat or very gently undulating plateau; • A disused quarry; • Parkland at Butcombe Court straddling the western boundary; • Minor roads set out on a grid pattern; and • Settlement within the area consists of isolated farms and houses." 		
Value criteria	Commentary	Value
Landscape designations	This LCA lies within a non-designated landscape.	Low
Condition/quality	The landscape is generally in good condition, although many hedges are now gappy and ponds are generally becoming neglected.	Medium
Scenic quality	The landscape has few detractors which are generally restricted to minor elements, such as telegraph poles and overhead cables.	Medium
Rarity	This is a landscape which contains few distinctive landscape features and the predominantly agricultural land use is extensive on a regional scale.	Low
Conservation interests	The only conservation interest is a Grade II listed building at Thrubwell Farm. There are no other cultural heritage or nature conservation designations in this LCA.	Low
Recreation value	The southern half of this LCA contains a number of local PRoWs crossing the agricultural landscape.	Low
Perceptual aspects	Reference to CPRE's <i>Tranquillity Mapping</i> ² indicates moderate to moderately low levels of tranquillity within this LCA as a result of the audible influence of occasional vehicles along the numerous minor lanes, which cross this small LCA and its proximity to Bristol Airport.	Medium
Associations	There are no known art, literature or cultural associations within this LCA, beyond any local associations that are undocumented.	Low
Overall value	The overall value is deemed to be Medium.	Medium
Susceptibility commentary (to the Proposed Development at Bristol Airport)		Susceptibility
Physical characteristics: There would be no physical changes to this LCA as a result of the Proposed Development.		N/A

⁴ Bath and North East Somerset Planning Services (2003). *Rural Landscapes of Bath and North East Somerset: A Landscape Character Assessment Supplementary Planning Guidance*. Adopted April 2003.

Landscape Character Area: 1: Thrubwell Farm Plateau

Visual characteristics: The flat landscape is open in appearance, although clipped hedges and a prevalence of hedgerow trees generally contain near views and provide some visual containment. CPRE's <i>Night Blight</i> ³ mapping indicates some low levels of light pollution (moderate levels of radiance) affecting the northern half of the LCA, as a result of light sources within Bristol Airport. The remainder of the LCA displays moderately low levels of radiance.		Medium
Perceptual characteristics: The network of minor roads and proximity to Bristol Airport results in tranquillity levels that are moderate to moderately low.		Medium
Overall susceptibility	The overall susceptibility is deemed to be Medium	Medium
Overall sensitivity		Susceptibility
	High	Medium
		Low
Value	High	High
	Medium	High
	Low	Medium
		Low
Overall Sensitivity to Proposed Development The overall value of this LCA is Medium. The overall susceptibility is judged to be Medium indicating a Medium overall sensitivity.		

Table 9B.7 Landscape Sensitivity Assessment: 2: Chew Valley LCA

Landscape Character Area: 2: Chew Valley LCA

LVIA photographic viewpoint locations within the LCA: None (see Figure 9.5)		
Direct landscape effects: None		Indirect landscape effects: Development of Bristol Airport
Key Characteristics (as defined in the <i>Rural Landscapes of Bath and North East Somerset, A Landscape Character Assessment</i> ⁴)		
<ul style="list-style-type: none"> • "Low lying and undulating valley of the River Chew; • Slowly permeable soils; • Disused coal mines and distinctive spoil heaps; • Mainly grassland with patches of arable land-use; • Characteristic small regular fields of late medieval enclosure; • Less common irregular fields created on slopes by medieval enclosure of woodland; • Large woodland areas such as Lord's Wood, Hunstrete Plantation and Common Wood; • Characteristic woodland on slopes and hillsides; • Patches of bracken in hedges and in areas of rough grazing; • Main settlements often on lower slopes; • Farm buildings and settlements often nestled into the valley sides and often amongst trees; • Occasional smaller groups of more recent housing in more elevated locations; • Rich variety of traditional building materials reflecting local availability; • Extensive views across Chew and Yeo Valleys; • Tributary valleys have intimate character enclosed by hedges, trees and side slopes; • Views to Blagdon and Chew Valley Lakes; • Sunken lanes; • Buildings and chimneys associated with Bristol Waterworks; • Disused North Somerset Railway and viaduct at Pensford; and • Standing stones at Stanton Drew." 		
Value criteria	Commentary	Value

Landscape Character Area: 2: Chew Valley LCA

Landscape designations	Part of this LCA lies within the Mendip Hills AONB, whilst the remainder of the LCA is undesignated.	High to Low
Condition/quality	This LCA has an intact and recognisable character with landscape features that are generally in good condition.	Medium
Scenic quality	The landscape of the Chew Valley is harmonious with a balance of hedges, trees and woodland within the enclosed farmland and few detracting features.	Medium
Rarity	This LCA comprises a primarily agricultural landscape which is common on a regional level.	Low
Conservation interests	Nature conservation interests include the Chew Valley Lake SSSI and SPA and Plaster's Green Meadow SSSI. A single scheduled monument lies within the LCA within the study area (the 'Fairy Toot long barrow, west of Butcombe') whilst there are numerous listed buildings both within and outwith the settlements of Chew Stoke.	Medium
Recreation value	Sustrans National Cycle Routes 1 and 4 pass through this LCA along with sections of the Two Rivers Way and Monarch's Way promoted trails. Chew Valley Lake is used for a wide variety of recreational activities including bird watching, fishing and sailing.	High
Perceptual aspects	<i>The Rural Landscapes of Bath and North East Somerset, A Landscape Character Assessment⁴</i> notes that this "landscape is generally very tranquil with the silence broken only by occasional tractors, other vehicles, aircraft and farm animals". This is reflected in CPRE's <i>Tranquillity Mapping³</i> (Figure 9.40) which indicates generally moderate to moderately high levels of tranquillity, with local disturbance found along the main transport corridors of the B3130, B3114 and A368 as they cross the landscape.	High to Medium
Associations	There are no known art, literature or cultural associations within this LCA, beyond any local associations that are undocumented.	Low
Overall value	The overall value is deemed to be Medium.	Medium
Susceptibility commentary (to the Proposed Development)		Susceptibility
Physical characteristics: There would be no physical changes to this LCA as a result of the Proposed Development.		N/A
Visual characteristics: The many small woods within this LCA, allied with the hedgerow trees, give the landscape a well-wooded appearance, which together with the tributary valleys provide visual containment. From elsewhere within the LCA, the undulating nature of the landscape provides views across the Chew Valley and Blagdon Lakes to the Mendips and Dundry Hills. Reference to CPRE's <i>Night Blight³</i> mapping (Figure 9.41) indicates that this is a landscape with low levels of radiance.		Medium
Perceptual characteristics: Reference to CPRE's <i>Tranquillity Mapping²</i> indicates moderate to moderately high levels of tranquillity within this LCA, with the visual and audible influences of the B3130, B3114 and A368 reducing levels on a local level. Any sense of remoteness is likely to be diluted by the moderately dense road networks which cross the landscape.		Medium
Overall susceptibility	The overall susceptibility is deemed to be Medium	Medium
Overall sensitivity	Susceptibility	
	High	Medium
		Low

Landscape Character Area: 2: Chew Valley LCA

Value	High	High	High	Medium
	Medium	High	Medium	Low
	Low	Medium	Low	Low

Overall Sensitivity to Proposed Development

The overall value of this LCA is Medium. The overall susceptibility is judged to be Medium indicating a **Medium** overall sensitivity.

Table 9B.8 Landscape Sensitivity Assessment: 4: Mendip Slopes

Landscape Character Area: 4: Mendip Slopes

LVIA photographic viewpoint locations within the LCA: 19 (see Figure 9.5)

Direct landscape effects: None

Indirect landscape effects: Development of Bristol Airport

Key Characteristics (as defined in the *Rural Landscapes of Bath and North East Somerset, A Landscape Character Assessment*⁴)

- "Dolomitic Conglomerate is the principal rock formation;
- Gentle to steeply sloping edge to the Mendip Hills with local undulations and rock outcrops;
- Slopes incised with minor valleys or combs which are often wooded;
- Ancient semi-natural woodland on steeper slopes;
- Most agricultural land is grassland including both rough grazing and cultivated and re-seeded grassland;
- Field boundaries typically marked by tall hedges and more rarely walls towards the upper slopes;
- Fields are generally small, irregular on the upper slopes indicating medieval woodland clearance and regular on the lower slopes indicating enclosure of open fields in the late medieval period;
- Settlements of Ubley, East Harptree, Compton Martin and West Harptree located at the foot of the slope along the springline have strong visual connection with character area;
- Houses generally have clay-tiled roofs; many painted or rendered white. Mixture of natural building materials including Carboniferous Limestones and red sandstone;
- Extensive views across Chew Valley;
- Area well served by minor roads and public rights of way including the Limestone Link long distance footpath;
- Features include disused quarries and lime-kilns, shafts along the line of the Bristol Water Works supply pipe and remnants of orchards; and
- Noise along A368 corridor otherwise generally quiet and peaceful."

Value criteria	Commentary	Value
Landscape designations	This LCA lies within the nationally designated Mendips Hills AONB.	High
Condition/quality	Landscape features are generally in good condition and the field pattern largely remains intact, although some amalgamation of fields has taken place. Stone walls are generally in disrepair and are often overgrown with scrub.	Medium
Scenic quality	The mosaic of open downland, woodland, hedgerows and field patterns of piecemeal enclosure, form an attractive landscape with extensive views across the Chew Valley.	High to Medium
Rarity	This LCA forms part of the unique natural landscape of the Mendip Hills AONB and contains features such as the ancient woodland, which is amongst the special qualities which define the AONB.	High
Conservation interests	A small SSSI is present within this LCA (Compton Martin Ochre Mine SSSI), which coincides with the North Somerset & Mendip Bats SAC. A small part of the Harptree Combe SSSI also lies within the study area. There are also a number of ancient woodlands including: Ubley Wood, Compton Wood and Harpertree Combe. Heritage assets are limited to a single listed building, an aqueduct sited within Harptree Combe.	High

Landscape Character Area: 4: Mendip Slopes

Recreation value	Monarch's Way passes through this LCA and is joined by the Limestone Link to the southeast of Compton Martin. Sustrans National Cycle Route 3 also crosses the LCA between the small settlements of Wrangle and Ridge. Elsewhere recreational routes are primarily limited to the local PROW network with a moderate number of footpaths crossing the landscape.	High
Perceptual aspects	Tranquillity levels are indicated on CPRE's <i>Tranquillity Mapping</i> ² (Figure 9.40) to be moderate to moderately low and influenced by the busy A368 corridor, which runs along much of the northern edge of this LCA. The settlements of Ubley, Compton Martin and East Harptree, which although lying outwith the LCA, have a strong visual connection to the Mendip Slopes. The presence of the A368 corridor, dense network of minor road and neighbouring settlements means that the sense of remoteness is likely to be diluted.	Medium
Associations	There are no known art, literature or cultural associations within this LCA, beyond any local associations that are undocumented.	Low
Overall value	The overall value is deemed to be High.	High
Susceptibility commentary (to the Proposed Development)		Susceptibility
Physical characteristics: There would be no physical changes to this LCA as a result of the Proposed Development.		N/A
Visual characteristics: The incised valleys or combes, the local undulations in the topography and the tall hedges and woodland blocks offer some visual containment and serve to restrict high levels of intervisibility with the surrounding landscape to the north. CPRE's <i>Night Blight</i> ³ mapping (Figure 9.41) indicates that, despite the presence of the road and settlements, radiance levels are generally low, with limited light pollution.		Medium
Perceptual characteristics: Reference to CPRE's <i>Tranquillity Map</i> ³ indicates moderate to moderately low levels of tranquillity within this LCA, with the visual and audible influences of the A368 and neighbouring urban settlements. Any sense of remoteness is likely to be diluted by the moderately dense road networks which cross the landscape.		Medium
Overall susceptibility	The overall susceptibility is deemed to be Medium.	Medium
Overall sensitivity		Susceptibility
		High Medium Low
Value	High	High High Medium
	Medium	High Medium Low
	Low	Medium Low Low
Overall Sensitivity to Proposed Development		
The overall value of this LCA is High. The overall susceptibility is judged to be Medium indicating a High overall sensitivity.		

2.3 Mendip Hills AONB character areas

Table 9B.9 Landscape Sensitivity Assessment: The Northern Slopes

Landscape Character Area: The Northern Slopes		
LVIA photographic viewpoint locations within the LCA: 17 and 18 (see Figure 9.5)		
Direct landscape effects: None		Indirect landscape effects: Development of Bristol Airport
Key Characteristics (as defined in the <i>Landscape Assessment of the Mendip Hills</i> ⁵)		
<ul style="list-style-type: none"> • "Abrupt junction with plateau; • Distinct hills at west end; • Frequent but well-separated settlement; • Abundant, mainly secondary woodland; • Heathland and conifer plantations; • Downland, limestone heath, scrub and rough grassland of high wildlife interest; • Prominent hillfort; • Pock outcrops and combes; • Strong contrast with plateau and lowland; and • Band of footslope pastures with overgrown hedges." 		
Value criteria	Commentary	Value
Landscape designations	This LCA lies within the nationally designated Mendips Hills AONB.	High
Condition/quality	Landscape features are generally in good condition.	High
Scenic quality	Scenic quality is high with the LCA comprising a sequence of distinctive landforms, with long distance panoramic views available from the elevated land over the surrounding cultivated landscape towards the coast.	High
Rarity	This LCA forms part of the unique natural landscape of the Mendip Hills AONB and contains features and characteristics including: rock outcrops and gorges, caves, ancient woodland, heritage sites and views which are all cited as being amongst the special qualities which define the AONB.	High
Conservation interests	The LCA is rich in nature conservation and heritage assets. Nature conservation designations include Dolebury Warren and Burrington Combe SSSIs, which between them cover over 230ha of land within the LCA. Mendip Lodge Wood is Ancient Woodland. In terms of heritage assets, scheduled monuments include Rowberrow Cavern, Rowberrow Camp (an Iron Age defended settlement), a hillfort on Burrington Ham, Aveline's Hole, Dolebury Camp, and a World War II decoy complex on Black Down.	High
Recreation value	This LCA is crossed by two promoted routes; the Limestone Link and West Mendip Way. The landscape is also crossed by a dense network of local PRoWs and large areas of open access land are present at Dolebury Warren, Burrington Ham and Black Down.	High
Perceptual aspects	Reference to CPRE's <i>Tranquillity Mapping</i> ² (Figure 9.40) indicates that levels of tranquillity are likely to be locally disturbed across the northern fringes of the LCA by the audible and visual influences of the A38 and proximity to the A368 and the settlements of Churchill, Sandford and Burrington. The mapping indicates that across Rowberrow Warren and Black Down levels of tranquillity are higher. The sense of remoteness is also higher across these areas.	Medium to High

⁵ Chris Blandford Associates for the Countryside Commission (1996). Landscape Assessment of the Mendip Hills from Steep Holme to Frome. Countryside Commission.

Landscape Character Area: The Northern Slopes

Associations	<p>C. H. Sisson wrote a poem entitled Burrington Combe and the local area, including Black Down, features prominently in his poetry.</p> <p>A local tradition (although unsubstantiated) holds that Augustus Montague Toplady wrote the hymn "Rock of Ages" after seeking shelter under a large rock at Burrington Combe. The rock was subsequently named after the hymn and is denoted on OS mapping.</p>	Medium
Overall value	The overall value is deemed to be High.	High
Susceptibility commentary (to the Proposed Development)		Susceptibility
Physical characteristics: There would be no physical changes to this LCA as a result of the Proposed Development.		N/A
Visual characteristics: Intervisibility within this LCA is variable, with the extensive woodland across Rowberrow Warren restricting outward views, whilst from the open elevated land there are high levels of intervisibility through the wide panoramic views, which are available over the landscape to the north. Some movement within the landscape is present across the northern fringes of this LCA as a consequence of its proximity to the busy A368 and A38. Levels of radiance, as indicated by CPRE's <i>Night Blight</i> ³ mapping (Figure 9.41), is generally towards the lower end of the spectrum (i.e. lower levels of radiance), with more moderate levels occurring towards the western end of the LCA and across the northern fringes, as a consequence of the proximity to the settlements of Sandford, Churchill, Langford and Banwell.		High to Medium
Perceptual characteristics: This is a landscape which displays high levels of tranquillity, remoteness and naturalness which are vulnerable to development. The area also has a strong sense of time depth.		High
Overall susceptibility	The overall susceptibility is deemed to be High.	High
Overall sensitivity		Susceptibility
	High	Medium
		Low
Value	High	High
	Medium	High
	Low	Medium
		Low
Overall Sensitivity to Proposed Development		
The overall value of this LCA is High. The overall susceptibility is judged to be High indicating a High overall sensitivity.		

Table 9B.10 Landscape Sensitivity Assessment: The Blagdon-Compton Martin Slopes Character Area

Landscape Character Area: The Blagdon-Compton Martin Slopes Character Area		
LVIA photographic viewpoint locations within the LCA: 15 (see Figure 9.5)		
Direct landscape effects: None		Indirect landscape effects: Development of Bristol Airport
Key Characteristics (as defined in the <i>Landscape Assessment of the Mendip Hills</i> ⁵)		
<ul style="list-style-type: none"> • "Steep slopes; • No settlement on slopes; • Abundant, mainly ancient woodland; • Sunken lands and trackways; • Downland; • Attractive footslope villages; • Strong historic landuse links with adjacent areas; and • High landscape quality." 		
Value criteria	Commentary	Value
Landscape designations	This LCA lies within the nationally designated Mendips Hills AONB.	High
Condition/quality	Landscape features are generally in good condition and the field pattern largely remains intact. Stone walls are generally in disrepair and are often overgrown with scrub.	Medium
Scenic quality	The mosaic of open downland, woodland, hedgerows and field patterns of piecemeal enclosure, form an attractive landscape, with an area to the west of Ubley Wood recognised in the Landscape Assessment of the Mendip Hills as being particularly scenic.	High to Medium
Rarity	This LCA forms part of the unique natural landscape of the Mendip Hills AONB and contains features such as the ancient woodland which is amongst the special qualities which define the AONB.	High
Conservation interests	A small SSSI is present within this LCA (Compton Martin Ochre Mine SSSI) which coincides with the North Somerset & Mendip Bats SAC. Many of the larger woodlands within the LCA (Fuller's Hey, Ridgeon Wood, Merecombe Wood, Ubley Wood and Compton Wood) are Ancient Woodland. Heritage assets include two bowl barrow scheduled monuments east of Ubley Hill Farmhouse and a number of listed building are present, concentrated within the settlement of Blagdon.	High
Recreation value	Monarch's Way passes through this LCA and is joined by the Limestone Link to the south-east of Compton Martin. Elsewhere recreational routes are primarily limited to the local PRow network with a moderate number of footpaths crossing the landscape.	High
Perceptual aspects	Tranquillity levels are indicated on CPRE's <i>Tranquillity Mapping</i> ² (Figure 9.40) to be moderate to moderately low and influenced by the busy A368 corridor, which passes through almost the entire length of this LCA; together with the urban influence of Blagdon and at the southern end of the LCA by Compton Martin. The presence of the road corridor and settlements means that the sense of remoteness is likely to be diluted.	Medium
Associations	Blagdon is the setting of part of Victor Canning's novel of 1934, <i>Mr Finchley Discovers his England</i> .	Medium
Overall value	The overall value is deemed to be High.	High
Susceptibility commentary (to the Proposed Development)		Susceptibility
Physical characteristics:		N/A

Landscape Character Area: The Blagdon-Compton Martin Slopes Character Area

There would be no physical changes to this LCA as a result of the Proposed Development.

Visual characteristics:

The lower slopes which define this LCA, combined with the woodland and built form, offer some visual containment and serve to restrict high levels of intervisibility with the surrounding landscapes. CPREs *Night Blight*³ mapping (**Figure 9.41**) indicates that despite the presence of the road and settlements, radiance levels are generally low with limited light pollution.

Medium

Perceptual characteristics:

Reference to CPRE's *Tranquillity Map*² indicates moderate to moderately low levels of tranquillity within this LCA with the visual and audible influences of the A368 and urban settlements.

Medium

Overall susceptibility

The overall susceptibility is deemed to be Medium.

Medium

Overall sensitivity

Susceptibility

		High	Medium	Low
Value	High	High	High	Medium
	Medium	High	Medium	Low
	Low	Medium	Low	Low

Overall Sensitivity to Proposed Development

The overall value of this LCA is High. The overall susceptibility is judged to be Medium indicating a **High** overall sensitivity.

Table 9B.11 Landscape Sensitivity Assessment: The Plateau Character Area

Landscape Character Area: The Plateau Character Area

LVIA photographic viewpoint locations within the LCA: 16 and 19 (see Figure 9.5)

Direct landscape effects: None

Indirect landscape effects: Development of Bristol Airport

Key Characteristics (as defined in the *Landscape Assessment of the Mendip Hills*⁵)

- "Drystone walls;
- Sparse settlements;
- Long views
- Little surface water;
- Straight roads;
- Gruffy ground;
- Rough pasture;
- Small beach and conifer plantations and shelterbelts;
- Rectilinear field pattern;
- Prehistoric ritual landscapes;
- Gently undulating landform;
- Openness and remoteness;
- Swallets and closed depressions; and
- Ash pollards."

Value criteria	Commentary	Value
Landscape designations	This LCA lies within the nationally designated Mendips Hills AONB.	High

Landscape Character Area: The Plateau Character Area

Condition/quality	Landscape features are generally in good condition, although the removal or neglect of traditional boundaries and intensively managed land is apparent in some places.	High to Medium
Scenic quality	Scenic quality is high with extensive long-distance views available from the elevated landscape. The tall transmitter masts to the north of Charterhouse are locally prominent. The area comprises an attractive harmonious landscape of open pastoral land, drystone walls and pockets of woodland.	High
Rarity	This LCA forms part of the unique natural landscape of the Mendip Hills AONB, with the sparsely populated plateau, dry stone walls, and distinctive limestone ridge and heritage assets amongst the special qualities which define the AONB.	High
Conservation interests	Nature conservation interest is focussed on The Cheddar Complex SSSI and North Somerset & Mendip Bats SAC. The LCA is rich in heritage assets including approximately 30 scheduled monuments and a number of Listed Buildings.	High
Recreation value	Sustrans National Cycle Route 3 passes through this LCA along with the promoted Limestone Link which follows a route through its northern fringes. A section of the West Mendip Way also traverses the LCA to the south of Black Down and there are small areas of open access land. The Charthouse Outdoor Activity Centre is located within this LCA to the east of Charterhouse.	High
Perceptual aspects	Reference to CPRE's <i>Tranquillity Mapping</i> ² (Figure 9.40) indicates high levels of tranquillity within this LCA, with some local disturbance along the B3134 and the minor lanes which traverse the landscape. The sparsely populated nature of this landscape, with the exception of the settlement of Charterhouse, gives rise to a sense of remoteness.	High
Associations	There are no known art, literature or cultural associations within this LCA, beyond any local associations that are undocumented.	Low
Overall value	The overall value is deemed to be High.	High
Susceptibility commentary (to the Proposed Development)		Susceptibility
Physical characteristics: There would be no physical changes to this LCA as a result of the Proposed Development.		N/A
Visual characteristics: The transmitter masts are locally prominent vertical structures which may be considered by some to be a visual detractor. From elevated land, there are high levels of intervisibility across the low-lying landscape to the north, whilst from elsewhere within the LCA the local topography and woodland provides some visual containment. CPRE's <i>Night Blight</i> ³ mapping (Figure 9.41) indicates that radiance levels are low with limited light pollution.		High to Medium
Perceptual characteristics:		High

Landscape Character Area: The Plateau Character Area

This is a landscape which displays high levels of tranquillity, remoteness and naturalness. The area also has a strong sense of time depth.

Overall susceptibility	The overall susceptibility is deemed to be High to Medium.	High to Medium
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Overall sensitivity

Susceptibility

High**Medium****Low**

Value

High**High****High**

Medium

Medium

High

Medium

Low

Low

Medium

Low

Low

Overall Sensitivity to Proposed Development

The overall value of this LCA is High. The overall susceptibility is judged to be High to Medium indicating a **High** overall sensitivity.

Appendix 9C

National Character Area (NCA) descriptions

9.1.1 Key characteristics of NCA 141 that are pertinent to the study area include:

- Low-lying, shallow vales that contrast sharply with high, open downland ridges as the varied landform reflects the complex underlying geology, comprised of Carboniferous limestones with sandstones, silts and conglomerates, together with muds, clays and alluvium. Coal Measures are also present;
- Water supply for Bristol and the surrounding area provided by Chew Valley Lake, Blagdon Lake, and the smaller Chew Magna Reservoir and the reservoirs at Barrow Gurney. These reservoirs also impound river flow, while releasing a set minimum flow downstream at all times;
- A wide range of soil types, from brown earths on Limestone outcrops to poorly draining gleys on clays, which reflects the underlying influence of the complex geology;
- The most extensive areas of woodland lie between Congresbury and the Avon Gorge and on the Failand Ridge. These are internationally significant, containing rare endemic whitebeam species. Elsewhere, woodlands are smaller and fragmented and mainly confined to steeper land; the majority are broadleaf;
- Agriculture is predominantly livestock rearing, with arable in the flatter land to the north-east, with larger field sizes and infrequent hedgerow trees. Valleys and steeper slopes in the south-east tend to have irregular fields and overgrown, species-rich hedges;
- A diverse landscape important for greater and lesser horseshoe bats. Grasslands of high nature conservation interest remain on the wetter valley bottoms and dry downland slopes;
- Settlements dating from the medieval period, clustered around springheads of the Cotswold scarp or along the springline of the Mendips. In the vales they are scattered, linked by a complex network of lanes, with linear mining villages superimposed. Settlement becomes especially dense in the south-east, with many villages enlarged as commuter settlements;
- Older village buildings, gentry houses and mansions of local ashlar, which includes pale yellow Jurassic Oolitic limestones and grey Carboniferous and Lias limestones. Red or brown sandstone is used in the north, and Pennant Sandstone at Nailsea 'Flats' in the south-west; and
- Bristol and its commercial, industrial and residential areas; major roads (M4 and M5 motorways); the airfields (Filton and Bristol); and reservoirs, which occupy a substantial area around Bristol.

9.1.2 The southern part of the study area is sited within NCA 141: Mendip Hills (refer to **Figure 9.37**). This is a medium-sized NCA in which 53% of its area is within the Mendip Hills Area of Outstanding Natural Beauty (AONB), although the NCA does not extend to the part of the AONB around Chew Valley Lake and Blagdon Lake that is closest to Bristol Airport. The expansion of Bristol Airport is identified as having "*impacts on views and tranquillity*." SEO1 which is concerned with safeguarding inward and outward views and conserving and enhancing special qualities, tranquillity and sense of remoteness also notes the potential impact on the NCA's views and tranquillity from "*further development at Bristol Airport*." Impacts upon tranquillity are anticipated from increased air and road traffic in surrounding areas. The potential for increased light pollution at Bristol Airport is listed as another possible impact upon tranquillity in the NCA.

9.1.3

Key characteristics of NCA 141 that are pertinent to the study area are:

- A chain of prominent limestone hills, cored by Devonian and Silurian rocks, extending inland from the coast and rising up sharply from the surrounding lowlands. An open limestone plateau with karst features including complex underground caves and river systems gives the area a unique character. Sandstone outcrops form the highest features. Dramatic gorges, cliffs and escarpment slopes surround the plateau. To the west the land breaks into individual hills;
- The plateau and hill tops are largely treeless, except for a few old ash pollards, wind-shaped shelterbelts and conifer plantations. The slopes and valleys surrounding the plateau have a wide range of woodlands forming an attractive mosaic with calcareous grassland and agriculture. There is a more wooded nature to the eastern Mendips;
- Variable enclosure patterns with larger, rectangular 18th Century field patterns bounded by drystone walls on the plateau and smaller, irregular fields with hedgerows on the scarp slopes and eastern Mendips;
- The majority of the NCA is under improved pasture for dairying, with some horticulture in the south-west;
- Many industrial archaeological sites, reflecting the past lead, coal and cloth industries. The plateau has an outstanding assemblage of heritage assets from prehistoric features, such as burial mounds and hill forts, through to Second World War remains;
- Villages are concentrated along the springline at the foot of the scarp slopes. Elsewhere, settlement is scattered. Characteristic church towers are visible from great distances; and
- Major transport routes such as the M5 and A38 cut through the area using natural valleys. The A37 and A39 cut across the centre.

Appendix 9D

District Landscape Character Area (LCA) key characteristics

North Somerset LCA E1: Mendip Ridges and Combes

- High ridges of Carboniferous Limestone with gentler lower slopes of Mercia Mudstone;
- Steep scarp slopes clothed in broad leaved and mixed woodland forming distinctive backdrop to the surrounding low-lying areas;
- Dramatic combes form routes for winding rural roads often with exposed geology of grey Limestone;
- Lower slopes under pasture in fields bounded by hedgerows;
- Open grassland plateaux at the summits of the ridges at Bleadon Hill and forming part of the Mendip upland to the east;
- Drystone walls on the high plateau with large rectangular fields of post medieval enclosure;
- Considerable ecological value with unimproved calcareous grassland, semi-natural broad-leaved woodland, much of which is ancient, and limestone heath;
- Sparse settlement with a few scattered stone farmsteads on the plateau and lower ridges, villages centred on historic stone churches on the lower slopes following the lines of roads;
- Twentieth century infill and ribbon development around some villages and rising up Bleadon Hill to the west with associated conifer shelter belts; and
- Rich heritage of historic landscape features particularly on the tops of the ridges.

North Somerset LCA E6: Cleeve Ridge

- Elevated ridges of Carboniferous Limestone, with lower flanks of Mercia Mudstone;
- Steep escarpment slopes form a distinctive feature rising above, and creating the backdrop to, the low-lying moors and valleys;
- Wooded, with large-scale mixed and deciduous plantations plus extensive areas of ancient woodland;
- Hidden, deep wooded combes and gorges extend into the scarp slopes providing important historic routeways, and now steep, winding rural lanes;
- Intimate, enclosed wooded landscape counterbalanced by occasional dramatic and surprising views out;
- Small limestone quarries and workings; and
- Largely inaccessible with only a few rural roads winding through combes up the Ridge.

North Somerset LCA H1: Dundry Settled Hill

- Dramatically rising topography with Inferior Oolite and Blue Lias Limestone geology;
- Highly elevated with long views over surrounding lower lying areas;
- Nucleated villages with local stone dwellings arranged to benefit from dramatic views;
- Scattered farmsteads of Blue Lias some with sheltering ash and yew trees;
- Pastoral landscape with some arable land use;
- Low hedgerows and wind formed hedgerow trees with drystone walls on higher ground;
- Steep winding rural lanes climb the slopes of the hill;
- Presence of quarries and disused mines; and
- Historic landscape a good example of medieval countryside.

North Somerset LCA J3: Chew Valley Rolling Farmland

- Underlying Mercia Mudstone geology;
- Small to medium scale rural, peaceful, and in places, remote landscape;
- Rolling landform with some steep slopes and knolls formed by the River Chew and its tributaries;
- Wet pastoral landscape with intermittent views to enclosing wooded ridges;
- Fields bounded by thick hedges with hedgerow trees;
- Complex network of winding rural roads and deep sunken lanes;
- Occasional belts and clumps of wet woodland and small farm orchards; and
- Nucleated village of Winford on higher ground and numerous isolated traditional stone and render farmsteads.

North East Somerset and Bath LCA 1: Thrubwell Farm Plateau

- Clipped hedges which are often, contain many gaps and are supplemented by sheep netting;
- Late 18th and early 19th Century rectilinear field pattern in the north of the LCA;
- Occasional groups of trees;
- Complex geology;
- Well drained soils;
- Flat or very gently undulating plateau;
- Parkland at Butcombe Court;
- Minor roads on grid pattern; and
- Settlement consists of isolated farms and houses.

North East Somerset and Bath LCA 2: Chew Valley

- Low lying and undulating topography;
- Disused coal mines and distinctive spoil heaps;
- Land use mainly grassland with patches of arable;
- Small regular fields of late medieval enclosure;
- Less common irregular fields created on slopes by medieval enclosure of woodland;
- Large woodland areas such as Lord's Wood, Hunstrete Plantation and Common Wood;
- Woodland on slopes and hillsides which combine with hedges to provide intimate character, especially in tributary valleys;
- Bracken in hedges and in areas of rough grazing;
- Settlement pattern consists of main settlements usually located on lower slopes with occasional smaller groups of more recent housing in more elevated locations;
- Farm buildings and settlements often nestled into the valley sides and often surrounded by tree cover;
- Sunken lanes;
- Extensive views across Chew and Yeo Valleys; and
- Views to Blagdon and Chew Valley Lakes.

North East Somerset and Bath LCA 4: Mendip Slopes

- Gentle to steeply sloping edge to the Mendip Hills with local undulations and rock outcrops;
- Slopes incised with minor valleys or combes which are often wooded with ancient semi-natural woodland on steeper slopes;
- Most agricultural land is grassland including both rough grazing and cultivated and re-seeded grassland;
- Field boundaries typically marked by tall hedges and more rarely walls towards the upper slopes;
- Fields are generally small, irregular on the upper slopes indicating medieval woodland clearance and regular on the lower slopes indicating enclosure of open fields in the late medieval period;
- Settlements of Ubley, East Harptree, Compton Martin and West Harptree located at the foot of the slope along the springline have strong visual connection with this LCA;
- Extensive views across Chew Valley;
- LCA is well served by minor roads and public rights of way, including the Limestone Link long distance footpath;
- Features include disused quarries and lime-kilns, shafts along the line of the Bristol Water Works supply pipe and remnants of orchards; and
- Noise along A368 corridor, otherwise LCA is generally quiet and peaceful i.e. relatively high level of tranquillity.

Mendip Hills LCA The Northern Slopes

- Sequence of distinctive landforms between Sandford and Burrington including Black Down, Dolebury Hill and Burrington Hams;
- Bronze Age barrows;
- Contrast between colour and texture of the summit moorland and the cultivated landscapes of the Plateau Character Area to the east and south;
- Extensive conifer plantation on Rowberrow Warren;
- Availability of wide views to surrounding "*cultivated landscapes*" and to the coast; and
- Rock outcrops and caves in Burrington Combe.

Mendip Hills LCA Blagdon-Compton Martin

- Open downland interspersed with well-wooded slopes and fields form an "*attractive mosaic*";
- "*piecemeal*" field patterns;
- Mixture of close cut and unmanaged hedgerows;
- Number of redundant quarries;

Mendip Hills LCA The Plateau

- Undulating topography dissected by closed depressions and dry valleys;
- Extensive smaller scale evidence of karst landscape e.g. swallets;
- Evidence of former mining e.g. broken or "gruffy" ground and waste tips;
- Limited tree cover in shelterbelts and small copses that can be distinctive landmarks with some conifer plantations;
- Long straight roads;
- Strong sense of openness;
- Sparse settlement pattern; and
- Extensive views from the plateau edge, especially to the west.

Appendix 9E

District Landscape Character Areas (LCAs) scoped out of landscape assessment

North Somerset LCAs

- A1: Kingston Seymour and Puxton Moore LCA - only a small proportion of the LCA is located within the study area and it has no visual relationship to Bristol Airport;
- A3: Kenn and Tickenham Moors LCA - only a small proportion of the LCA is located within the study area and it has no visual relationship to Bristol Airport;
- B1: Land Yeo and Kenn River Floodplain LCA - low lying LCA outside comparative Zone of Theoretical Visibility (ZTV) with no relationship to Bristol Airport and proximity to Nailsea means it has low levels of tranquillity as shown on CPRE Tranquillity mapping¹;
- E5: Tickenham Ridge LCA - only a small proportion of the LCA is located within the study area, and it is well outside the comparative ZTV and has no visual relationship to Bristol Airport;
- G2: Failand Settled Limestone Plateau LCA - minute fragment of LCA located in edge of study area;
- J2: River Yeo Rolling Valley Farmland LCA - although this large LCA covers a considerable part of the south-western study area, its low elevation ensures that it is mostly outside the comparative ZTV. Relatively low levels of tranquillity due to presence of large settlements such as Congresbury, Langford and Wrington plus a long section of the A38 reduce the LCA's susceptibility and hence low landscape sensitivity to potential impacts from the Proposed Development. Two other LCAs separate it from Bristol Airport and one LCA separates it from the Mendip Hills AONB;
- J4: Colliters Brook Rolling Farmland LCA - outside of the comparative ZTV with a minimum separation distance of over 2km from the north-eastern corner of Bristol Airport. Low susceptibility and hence low landscape sensitivity due to proximity to south-western edge of Bristol and presence of sections of A38 and A362;
- J5: Land Yeo and Kenn River Rolling Valley Farmland LCA - although it is a relatively extensive LCA in the north-west of the study area, it is low lying at the base of the Cleeve Ridge and consequently is outside the comparative ZTV and has no visual relationship with Bristol Airport. Proximity to Nailsea and presence of the A362 reduce tranquillity and are indicative of low landscape sensitivity; and
- K1: Nailsea Farmed Coal Measures LCA - low elevation ensures LCA is outside the comparative ZTV and proximity to Nailsea results in low tranquillity and is indicative of low landscape sensitivity.

Bath and North East Somerset LCAs

- Upper Chew and Yeo Valleys LCA - low elevation ensures that this LCA is mostly outside comparative ZTV, with no linkages with Bristol Airport identified and review of key

¹ Campaign to Protect Rural England (2007). Tranquil Places, [online]. Available at: www.cpre.org.uk/resources/countryside/tranquil-places [Checked 12/03/18].

characteristics does not identify any that would be particularly susceptible to the Proposed Development;

- Dundry Plateau LCA - only a small proportion of this LCA falls within the study area and this is mostly outside the comparative ZTV; and
- Hinton Blewitt and Newton St. Loe Plateau Lands LCA - only a small proportion of this LCA falls within the study area and this is outside the comparative ZTV.

Mendip Hills AONB LCAs

- The Chew Lowlands LCA - low elevation ensures that this LCA is mostly outside the comparative ZTV;
- The Harptree - Chewton Edge LCA - only the north-western corner of this LCA is located within the study area;
- The Lox Yeo Valley and Winscombe Vale LCA - low elevation and south-facing aspect result in this LCA being located almost completely outside the comparative ZTV. The presence of Winscombe and the A38 reduce local levels of tranquillity;
- The South Western Slopes LCA - only a small proportion of the north-eastern part of this LCA is within the study area and its aspect ensures that it is outside the comparative ZTV;
- Crook Peak to Callow Hill LCA - only a small proportion of the northern part of this LCA is within the study area and its aspect ensures that only fragments of the comparative ZTV extend into this northern part; and
- Banwell Head to Towerhead LCA - only a small proportion of the eastern part of this LCA is within the study area and hence only a small proportion is located within the comparative ZTV.

Appendix 9F

Landscape Assessment Tables

Table 9F.1 Assessment of landscape effects on the special qualities of the Mendip Hills Area of Outstanding Natural Beauty (AONB)

Mendip Hills AONB
<p>Overall landscape sensitivity: High</p>
<p>Minimum separation distance to boundary of Bristol Airport: 2.9km</p>
<p>Assessment of effects Special quality 1 - the distinctive limestone ridge with windswept plateau punctuated by spectacular dry valleys and gorges, ancient sinkholes and depressions, and impressive rocky outcrops. Cheddar Gorge probably the most widely known limestone karst feature in Britain.</p>
<p>Commentary The Proposed Development will have no effect upon the long-term retention of this special quality as it can have no direct or indirect effects upon these geomorphological characteristics. Cheddar Gorge is outside the study area.</p>
<p>Assessment of effects Special quality 2 - views towards the Mendip Hills from Exmoor, Quantocks, the Somerset Levels and Moors and Chew Valley. The views out including across the Severn Estuary to Wales and the Somerset Levels to Glastonbury Tor and the Somerset coast.</p>
<p>Commentary The Proposed Development will have no effects upon view towards the Mendip Hills from any of these locations including the Chew Valley where views of Bristol Airport are rarely, if ever, available and if available are in the opposite direction to the views to the Mendip Hills.</p> <p>The baseline review of the availability of views out of the AONB towards the north and Bristol Airport and the minimal role of built components at Bristol Airport in views, where they are available, provides a strong indication that the Proposed Development's components will rarely be identifiable in outward views. Calculations for the coverage of the Zone of Theoretical Visibility (ZTV) for the present and completed and components of the permitted 10 million passengers per annum (mppa) development that were started by November 2018 show that it will be potentially visible from 14.5% of the part of the AONB in the study area. By comparison calculations for the coverage of the ZTV for Proposed Development show that it will be potentially visible from 14.6% of the part of the AONB in the study area.</p> <p>Where views are available from elevated locations, principally around Beacon Batch, and atmospheric and lighting conditions are favourable, any built components of the Proposed Development that can be identified in northern views will not extend the horizontal angle of view occupied by Bristol Airport. They will they not be taller than the existing built components and will consequently not extend above the section of the northern horizon formed by the wooded Oatfield Ridge. All the proposed built development will be seen in the context of the existing built development in Bristol Airport's northern area.</p> <p>The Proposed Development will never be visible in the same angle as the listed key features in any views out of the AONB.</p>
<p>Assessment of effects Special quality 3 - a sparsely populated plateau, with settlements of Mendip stone largely confined to the spring line, retaining dark skies and a sense of tranquillity.</p>
<p>Commentary The Proposed Development will not change population levels, settlement patterns and the use of vernacular building materials in the AONB.</p> <p>The limited amount of changes to the existing lighting at Bristol Airport and the introduction of a limited amount of new lighting for some proposed components, such as the Silver Zone car park extension (Phase 2), will be designed to avoid any upward light spillage that could contribute to skyglow that in turn has the potential to adversely affect dark skies in the AONB. Were any incremental changes to arise they would be experienced in the context of the skyglow to the north of the AONB that are as a result of various</p>

Mendip Hills AONB

contributory sources including the city of Bristol. The night time photography from Viewpoints 16 and 17 in **Figure 9.25** show that night time lighting at Bristol Airport can be prominent in night time views north from a limited proportion of the AONB. Nevertheless, as set out in the Lighting Impact Assessment¹, the lighting required for the Proposed Development will adopt design standards, to avoid or minimise light spill (in accordance with the Dark Skies in the AONB statement² that serves to implement the AONB Management Plan). Any new lighting sources would be seen in the same horizontal angle of view as baseline lighting at Bristol Airport and as assessed in the Lighting Impact Assessment¹ will only ever result in an incremental increase to baseline lighting levels as experienced from a small proportion of the AONB.

Tranquillity levels vary across the part of the AONB within the study area, with some of the closest parts, particularly parts in proximity to the A38 and A368, having some of the lowest tranquillity levels. Given the minimal changes in the daytime and night time visual roles of the Proposed Development compared with the baseline as already explained, additional impacts upon tranquillity will only be generated by other effects pathways. Aircraft movements from landing and taking off can be seen from locations in some parts of the AONB within the study area, but observation made during site visits are that such movements are not prominent or dominant temporary elements in such views. The proposed increase in aircraft movements will have a minor adverse effect on some aspects of tranquillity but this will be incremental. Figure 5 and Table 9 in the Operations Monitoring Report⁵ shows that only a minute proportion of the noise complaints received in 2017 were from locations inside the AONB. This distribution reflects the manner that none of the westerly flight routes that are followed by 80% of aircraft movements fly over the AONB, whilst one of the three easterly flight routes that are followed by 20% of aircraft movements fly over the AONB under the baseline conditions of 76,189 aircraft movements in 2017. These proportions will be retained for the increased number of 97,126 aircraft movements per annum that will take place under the Proposed Development (refer to **Chapter 2: Description of the Proposed Development**).

It is reasonable to assume that a large majority of traffic journeys within the AONB that are associated with Bristol Airport are, and will continue to be, on the A38. Traffic levels on the A38 south of Bristol Airport are set out in **Table 6.8** in **Chapter 6: Traffic and Transport**. Traffic flow numbers in both directions (All Traffic 18hr Average Annual Weekday Traffic (AAWT)) are provided for the 2026 future baseline without the Proposed Development and are calculated with the Proposed Development. These AAWT traffic flow figures show that the operation of the Proposed Development would generate an increase in traffic flow on the A38 immediately south of Bristol Airport of less than 5%. Only a proportion of the traffic using the A38 immediately south of Bristol Airport will continue to travel along the section of the A38 further south that is routed through the AONB. This small rise in traffic flow on the relevant section of the A38 indicates that the operation of the Proposed Development will have negligible adverse effect upon level of tranquillity on the small proportion of the AONB close to the A38 (where levels of tranquillity are low under the current and future baseline conditions) and no effect upon tranquillity levels across the remainder of the AONB.

The review of the information on aircraft movements and traffic levels generated by the operation of the Proposed Development in relation to the AONB demonstrates that there will be minimal potential for any discernible reduction in the level of tranquillity in the AONB from the operation of the Proposed Development.

Assessment of effects

Special quality 4 – “the diverse and visible geology that ranges from Devonian to Jurassic in a relatively small area making it one of the best area in the country to appreciate the relationships between geology, landscape and natural history.”

Commentary

The Proposed Development will have no effects upon the geology of the AONB.

Assessment of effects

Special quality 5 – “caves, for their wildlife, geological, archaeological importance including Avelines Hole the oldest burial site in Britain and Goughs Cave one of the most important Palaeolithic sites in Europe that provides a breeding site for Lesser and Greater Horseshoe bats.”

Commentary

The Proposed Development will have no effects upon these features, sites or habitats in the AONB.

Assessment of effects

Special quality 6 – “the limestone aquifer feeding the reservoirs of Cheddar, Chew Valley and Blagdon Lakes providing habitats of local and international importance for birds with Chew Valley Lake designated a Special Protection Area for bird species.”

¹ Hydrock. (2018). Bristol Airport 12MPPA Extension Lighting Impact Assessment.

² Mendip Hills AONB Partnership, (undated). Dark Skies in the Mendip Hills AONB.

Mendip Hills AONB

Commentary

The Proposed Development will have no effect upon the Limestone aquifer and therefore upon these habitats and designations in the AONB.

Assessment of effects

Special quality 7 – *“the Chew Valley - a rich farmed landscape with fields divided by hedges.”*

Commentary

The Chew Valley part of the AONB is at a low elevation and is almost entirely outside the comparative ZTV in **Figure 9.4**. As a consequence, the Landscape Character Area (LCA) (LCA 3 in the AONB landscape character assessment) is scoped out of the landscape assessment. The Proposed Development will have no effects upon the land use or field pattern in this part of the AONB.

Assessment of effects

Special quality 8 – *“dry stone walls that criss-cross the plateau farmland grazed by sheep, beef and dairy cattle.”*

Commentary

The Proposed Development will have no effects upon the role or condition of the drystone walls in the plateau farmland parts of the AONB.

Assessment of effects

Special quality 9 – *“steep south-facing slopes of flower rich limestone grasslands and the area known as the Strawberry Belt of horticultural activity producing soft fruits.”*

Commentary

The Proposed Development will have no effects upon these grasslands or upon the horticultural activities of the Strawberry Belt.

Assessment of effects

Special quality 10 – *“ancient woodland combs on the north and south slopes offering varied habitats of national and international importance for a wide diversity of wildlife including dormouse and bats.”*

Commentary

The Proposed Development will have no effects upon these habitats.

Assessment of effects

Special quality 11 – *“evidence of human settlement dating back 500,000 years. Henge monuments, barrows and hillforts through to World War Two sites are prominent features on the plateau as are remnants of Roman and Victorian lead mining.”*

Commentary

The Proposed Development will have no direct effects upon any of these features or upon the settings of any that are designated as Scheduled Monuments

Assessment of effects

Special quality 12 – *“a landscape enjoyed by large numbers of people for a wide range of interests and outdoor pursuits including caving, climbing, cycling and quieter activities including bird watching and walking due to areas of tranquillity.”*

Commentary

Commentary on the component of special quality 12 that is concerned with tranquillity is covered in the response to special quality 3. The minimal incremental changes to a small proportion of the factors that contribute to the varying levels of tranquillity across the part of the AONB in the study area are highly unlikely to alter the ways in which people undertake outdoor pursuits or follow their interests.

Mendip Hills AONB

Summary

The operation of the Proposed Development has the potential to have adverse effects upon three of the AONB's 12 special qualities. Any potential changes to the composition of outward views; dark skies and levels of tranquillity will be small-scale and incremental and as such unlikely to be discernible. The effects pathways identified will result in any changes being sustained for a small proportion of the part of the AONB in the study area, which is only 40% of the total area of the AONB. As a nationally designated landscape, the AONB is accorded a high landscape sensitivity, but the assessment concludes that the magnitude of change across most of the AONB will be none with a negligible magnitude of change in some of the more open and elevated parts. In accordance with the approach to significance evaluation set out in **Table 9.9 of Chapter 9: Landscape and Visual**, a negligible magnitude of change combined with a high sensitivity will result in a minor level of landscape effect which although adverse will be not significant.

The assessment concludes that any small-scale changes to the future baseline by Operation Phase Year 15 as the result of the full establishment of the planting proposed in the integrated/embedded mitigation masterplan will have result in no change to the negligible magnitude of change assessed for Operation Phase Year 1.

Overall assessment of landscape effects upon the Mendip Hills AONB

Magnitude of change: Negligible	Type of effect: Permanent Adverse	Level of effect: Minor	Significance Not Significant
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Table 9F.2 Assessment of landscape effects: LCA G1: Broadfield Down Settled Limestone Plateau

LCA G1: Broadfield Down Settled Limestone Plateau

Overall landscape sensitivity (see Appendix 9B): Low

Minimum separation distance to boundary of Bristol Airport: Not applicable as host LCA

Assessment of effects**Operation Phase****Commentary****Year 1**

The proposed new facilities would be concentrated in the northern area of Bristol Airport with only the Silver Zone car park extension (Phase 2) located in the southern area. There will be no loss of landscape elements in the LCA outside the boundary of Bristol Airport and minimal loss of landscape elements within the boundary, as the proposed components in the northern area are mostly sited in areas already used for hardstanding or built developments.

The comparative ZTV (**Figure 9.4**) shows that the northern, eastern and south-western edge of LCA G1 will remain outside the ZTV for any of the existing and proposed components and car parks. **Figure 9.4** also shows that there will be no parts of LCA G1 where the components of the Proposed Development will be visible, where components of the future baseline that includes the current components and the components of the 10 mppa development completed or commenced by November 2018 will be not visible. Consequently, any effects upon LCA G1 will be generated by an intensification of activities upon parts of the LCA that are already affected by the operation of Bristol Airport, including more perceptual characteristics impacted by aircraft taking off and landing and the off-site traffic movements.

The descriptions of the LCA in the latest landscape character assessment (**Appendix 9B**) emphasise the prominent and, in the central part of the LCA, dominant role of Bristol Airport. The components of the Proposed Development and the increase in the number of passengers and aircraft movements will serve to incrementally intensify the existing role of Bristol Airport in those parts of the LCA where it is already prominent or dominant. Nevertheless, the component facilities will all have precedents e.g. the east walkway and pier will possess a similar appearance, scale and form as the existing west walkway and pier, whilst Phase 3 of the multi-storey car park (MSCP) will have the same scale, height, mass and surface finish as the existing and under construction Phases 1a and 1b of the MSCP. None of the proposed facilities will deviate from the long-established character of built development at Bristol Airport, including the concentration of built development in its northern area and concentration of carparking in its southern area. It is accepted in the description of LCA G1 that Bristol Airport has an "urbanising effect" on Lulsgate Bottom, however the continued retention, maintenance and proposed

LCA G1: Broadfield Down Settled Limestone Plateau

localised reinforcement of extensive planting along the northern boundary will minimise the potential for intensification of the existing urbanising effect upon this closest part of the LCA.

The effects upon the perceptual characteristics of LCA G1 due to minor changes in the lighting regime in the northern area and the Silver Zone car park extension (Phase 1 and 2), as set out in the Lighting Impact Assessment¹, will be minor. This is due to the localised high level of existing lighting that is already present at the terminal building and at the aircraft stands, combined with the lighting design strategy described in the Lighting Impact Assessment¹ that will ensure that the limited amount of additional lighting required minimises light spill and contributions to sky glow within the LCA. Similarly, the proposed increase in aircraft movements, which will be overwhelmingly concentrated during day time hours, will have an adverse but incremental effect on wider levels of tranquillity within the LCA, principally in the day time. The baseline situation, whereby the only perceptual effect of the presence of the operational airport in some of the peripheral parts of LCA G1 is periodic low-level noise from aircraft landing or taking off, will remain under the Proposed Development under present and future baselines.

In summary, by Operation Phase Year 1 the Proposed Development will result in an incremental increase in the already prominent or dominant role of the operation of Bristol Airport in the host LCA, but it will not introduce new landscape characteristics or modify existing landscape characteristics, nor will it spatially extend the proportion of the LCA indirectly affected by the operation of Bristol Airport. This will result in a low magnitude of change and a minor level of effect which is Not Significant.

Magnitude of change:	Type of effect:	Level of effect:	Significance:
Low	Temporary Adverse	Minor	Not Significant

Year 15	There would be minimal change in comparison to Operation Phase Year 1. The limited amount of reinforcement planting at key locations on and close to the boundary of Bristol Airport as proposed in the integrated/embedded mitigation masterplan would be fully established. Their establishment combined with on-going management of all soft landscape elements within the Bristol Airport site will ensure that they either continue to fulfil their present landscape (and visual) role or an enhanced role in reversing the effects of poor management of LCA G1's field boundaries. There will be no change to the magnitude of landscape change and hence to the level of effect assessed for Operation Phase Year 1.
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Magnitude of change:	Type of effect:	Level of effect:	Significance
Low	Permanent Adverse	Minor	Not Significant

Table 9F.3 Assessment of landscape effects: LCA E1: Mendip Ridges and Combes

LCA E1: Mendip Ridges and Combes

Overall landscape sensitivity (see Appendix 9B): High

Minimum separation distance to boundary of Bristol Airport: 4.3km

Assessment of effects

Operation Phase	Commentary
Year 1	<p>There will be no loss of landscape elements within LCA E1 with indirect landscape effects being restricted to the potential presence of the components of the Proposed Development including any incremental increase in night time lighting levels, plus increases in the number of aircraft movement discernible and, potentially, increases in vehicle numbers on the short section of A38 that is routed through the eastern-most part of LCA E1.</p> <p>The primary effects pathway will therefore be visual. Review of the comparative ZTV (Figure 9.4) shows that the only areas in the eastern-most part of LCA E1 that are outside the comparative ZTV are the steep-sided combes to the south of Dolebury Warren and Burringham Ham. The review also shows that views of components of the Proposed Development will be restricted to tops of the ridges and the more elevated north-facing slopes, a proportion of which host extensive coniferous and mixed plantation woodlands. Consequently, any effects upon</p>

LCA E1: Mendip Ridges and Combes

LCA E1 will be generated by a potentially discernible intensification of activities upon parts of the LCA that are already affected, including more perceptual characteristics impacted by aircraft taking off and landing and the off-site traffic movements.

The photomontage provided for Viewpoint 16 on Burrington Ham (**Figure 9.32**) illustrates that it will be unlikely that any of the components of the Proposed Development, including the eastern walkway and pier and the Silver Zone car park extension (phase 2) will be individually identifiable from even the most elevated and open locations within LCA E1. This is due to the minimum separation distance of 4.3km, the siting of the largest scale components of the Proposed Development within the existing area of built development on the northern area and the manner in which the heights of the proposed components will ensure that none of them will extend above the flat, partly wooded and elevated northern horizon that in the section of the view above Bristol Airport is formed by the well-treed Oatfield Ridge.

The effects upon the perceptual characteristics of LCA E1 during the day time will be confined to the small-scale increase in the numbers of aircraft movements discernible within the LCA and, in small areas of the LCA by a slight increase in numbers of vehicular movements as described in **Table 9F.1**. Any minor increases should be assessed in the context of relatively low baseline levels of tranquillity, especially in the areas of LCA E1 close to the roads, where the slight (less than 5%) increase in traffic levels will be experienced. If perceptual landscape effects are sustained at more tranquil areas such as Dolebury Warren and Burrington Ham, they will be negligible.

The effects upon the night time perceptual characteristics of the eastern-most part of LCA E1 due to changes in the lighting regime will be minimal. The horizontal extent of lighting in the northern view where lighting at Bristol Airport is present in night time views will not be extended. There may be small increases in the number of light sources present at the east pier although part of the Bristol Airport site is already illuminated. As set out in paragraph 4.2.6 in the Lighting Impact Assessment¹, the lighting design and strategy is predicated upon ensuring no light escapes upwards, with all floodlights specifically designed to not produce upward light. Hence there will be no increase in the baseline level of skyglow to which lighting in the city of Bristol is a partial contributor. In summary, by Operation Phase Year 1 the Proposed Development will not result in any changes to the negligible level of effects generated by the presence of built components and car parking at Bristol Airport that are currently and by 2026 will continue to be experienced via a visual effects pathway. There may be minor incremental changes to some perceptual characteristics from additional aircraft movements (landing and taking-off) and, at night time, from a minor incremental increase in the sources of light within the existing horizontal angle of view occupied by Bristol Airport's northern area. These minor changes are assessed as not having the potential to significantly impact upon any of the key characteristics of the eastern-most part of LCA E1 or at the more extensive scale of the entire LCA under present and future baselines. This will result in a negligible magnitude of change and a minor level of effect which is Not Significant.

Magnitude of change: Negligible	Type of effect: Temporary Adverse	Level of effect: Minor	Significance: Not Significant
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Year 15	There would be no change in comparison to Operation Phase Year 1. The limited amount of reinforcement planting at key locations on and close to the boundary of Bristol Airport would be fully established, but their presence would not affect the small number of perceptual effects pathways via which any landscape effects would be experienced in the eastern-most part of LCA E1. There will be no change to the magnitude of landscape change and hence to the level of effect assessed for Operation Phase Year 1.
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Magnitude of change: Negligible	Type of effect: Permanent Adverse	Level of effect: Minor	Significance: Not Significant
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Table 9F.4 Assessment of landscape effects: LCA E6: Cleeve Ridge

LCA E6: Cleeve Ridge	
Overall landscape sensitivity (see Appendix 9B): High	
Minimum separation distance to boundary of Bristol Airport: 0.3km	
Assessment of effects	
Operation Phase	Commentary
Year 1	<p>There will be no loss of landscape elements within LCA E6 with indirect landscape effects being restricted to the potential presence of the components of the Proposed Development, including any incremental increase in night time lighting levels, plus increases in the number of aircraft movement discernible and, potentially, increases in vehicle numbers using main and minor roads that are present in LCA E6.</p> <p>The primary effects pathway will therefore be visual. Review of the comparative ZTV (Figure 9.4) shows that most of LCA E6 is covered by the ZTV, with the exceptions of its northern and western edges. This is due to reduced elevation on the lower slopes of the Backwell Hill, Barrow Hill and the Cleeve escarpment. In addition, the extensive, dense woodland areas in the west of the LCA, which mainly consist of coniferous species, ensure that outward eastern views towards Bristol Airport or of aircraft movement are frequently screened. In other parts of LCA E6 the coalescence of intervening tree cover is often sufficient to heavily filter or frame views even in winter months. Where views are available only the tallest components of Bristol Airport can be seen. Most commonly these components include one or more of the ATC tower; the tail fins of aircraft waiting at stands; and lighting columns close to stands. Hence the proposal to slightly increase the number of stands (from 32 to 36) and more aircraft waiting and taxiing (due to an increase in aircraft movements) could slightly increase the visual presence of Bristol Airport in some parts of LCA E6. The relatively low height (maximum 13.5m above ground level for the terminal building extension and 16m for Phase 3 of the MSCP, although it is at a lower ground level elevation) will have the consequence that no components of the Proposed Development will be discernible from parts of LCA E6 where no components associated with the current and components of the 10 mppa development that will be completed by 2026 are or will not already be visible.</p> <p>Hence it is assessed that across the large majority of LCA E6 the Proposed Development's built components will not be discernible and will have no impacts upon any of the LCA's key characteristics. In the small proportion of the LCA where one or more of the Proposed Development's components may be seen, their presence would result in an incremental increase in the density of development within the existing development envelope of Bristol Airport. Given the minimal contribution of Bristol Airport to the key characteristics of the LCA such small-scale changes will not be significant.</p> <p>The effects upon perceptual characteristics of LCA E6 during the day time will be confined to the small-scale increase in the numbers of aircraft movements discernible within the LCA and, in some parts of the LCA by a possible increase in numbers of vehicular movements. Any increases should be assessed in the context of relatively low baseline levels of tranquillity, especially in the areas of the LCA close to A370 and A38 where the negligible increase in traffic levels predicted in Chapter 6 will be experienced. Any changes to perceptual characteristics in the more tranquil parts of LCA E6 will be restricted to a small-scale increase in the number of aircraft over-flying.</p> <p>The effects upon the night time perceptual characteristics of the closest parts of LCA E6 due to changes in the lighting regime will be minimal given the paucity of available views towards the light sources. The principal potential effects pathway will be through an increase in skyglow above the horizon in the direction of Bristol Airport. The Lighting Impact Assessment¹ states that the lighting design and strategy is predicated upon ensuring no light escapes upwards hence there will be no increase in the baseline level of skyglow. It is also relevant to note that the night-time site visit also demonstrated that in the northern parts of LCA E6 the main source of skyglow is the city of Bristol allied with towns such as Nailsea.</p> <p>In summary, by Operation Phase Year 1, the Proposed Development will result in minimal changes to the negligible level of effects generated by the presence of built components and car parking at Bristol Airport that are currently experienced and will continue to be experienced up to 2026 via a visual effects pathway. There may be minor incremental changes to some perceptual characteristics from additional aircraft movements (landing and taking-off) and, possibly from small increases in the vehicle numbers on main roads in some parts of LCA E6 in addition to the changes resulting from gradual establishment of the 10 mppa operational programme. At</p>

LCA E6: Cleeve Ridge

night-time it is assessed that incremental changes to the baseline lighting will not be discernible across the LCA. These minor changes are assessed as not having the potential to significantly impact upon any of the key characteristics of LCA E6 under present and future baselines despite the high value attributed to the LCA in the sensitivity assessment. This will result in a negligible magnitude of change and a minor level of effect which is Not Significant.

Magnitude of change: Negligible	Type of effect: Temporary Adverse	Level of effect: Minor	Significance: Not Significant
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Year 15	There would be no change in comparison to Operation Phase Year 1. The limited amount of reinforcement planting at key locations on and close to the boundary of Bristol Airport would be fully established but their presence would have no impact upon the small number of perceptual effects pathways via which any landscape effects would be experienced in LCA E6. There will be no change to the magnitude of landscape change and hence to the level of effect assessed for Operation Phased Year 1.
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Magnitude of change: Negligible	Type of effect: Permanent Adverse	Level of effect: Minor	Significance: Not Significant
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Table 9F.5 Assessment of landscape effects: LCA H1: Dundry Settled Hill

LCA H1: Dundry Settled Hill

Overall landscape sensitivity (see Appendix 9B): Medium

Minimum separation distance to boundary of Bristol Airport: 2.8km

Assessment of effects

Operation year	Commentary
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Year 1	<p>There will be no loss of landscape elements within LCA H1 with indirect landscape effects being restricted to the potential presence of the components of the Proposed Development, including any incremental increase in night time lighting levels. Perceptual changes may result from increases in the number of aircraft movements.</p> <p>The primary effects pathway will therefore be visual. Review of the comparative ZTV (Figure 9.4) shows that approximately 70% of the western third of LCA H1 is covered by the ZTV. It does not extend into the steeper valleys or across the summit plateau. Views of both the baseline components and the built components of the Proposed Development are, and will be, much more limited due to the screening from vegetation, principally hedgerows, and in some locations by built development. There are no parts of LCA H1 where components of the Proposed Development will potentially be visible where the current and permitted 10 mppa developments are/will not already be visible. The infrequent presence of some of the larger scale Proposed Development components, such as: the eastern walkway and pier, the extensions to the terminal building and the new MSCP, will represent a slight intensification or change within the existing context and development envelope of Bristol Airport. They are unlikely to be readily discernible in casual views from with LCA H1 and as such will not alter any of the LCA's key characteristics.</p> <p>The effects upon perceptual characteristics of LCA E6 during the day time will be confined to the small-scale increase in the numbers of aircraft movements discernible within the LCA. Any increases should be assessed in the context of relatively low baseline levels of tranquillity in most of the western part of LCA H1. Any changes to perceptual characteristics in the more tranquil parts of LCA H1 will be restricted to a small-scale increase in the number of aircraft over-flying which whilst adverse is an established perceptual characteristic.</p> <p>The effects upon the night time perceptual characteristics of the western part of LCA H1, due to changes in the lighting regime, will be minimal given the limited availability of views towards the light sources, the lighting design strategy that will be implemented for the Proposed Development¹ and the manner in which where views are available the lighting at Bristol Airport is experienced in the context of lighting at settlements such as Yatton, Nailsea and Clevedon in the same direction of view. With the minor exception of the lighting required in the</p>
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LCA H1: Dundry Settled Hill

proposed Silver Zone car park extension (Phase 2), which will be fitted with Passive Infrared Sensors (PIR), so will be only periodically partially illuminated, any increases in the number of light sources would be located within the existing area of Bristol Airport and its night-time lighting regime. The incremental changes would be confined to a small proportion of the western views from LCA H1 within which there are several other clustered illuminated areas.

In summary, by Operation Phase Year 1, the Proposed Development will result in minimal changes to the low level of effects generated by the presence of built components and car parking at Bristol Airport that are currently experienced and will continue to be via a visual effects pathway in 2026. There may be minor incremental changes to some perceptual characteristics from additional aircraft movements (landing and taking-off) in addition to the changes resulting from gradual establishment of the 10 mppa operational programme. At night-time it is assessed that incremental changes to the baseline lighting will be confined to an area already characterised by light sources and should be assessed in the context of many other lighting sources, including the city of Bristol. These minor changes are assessed as not having the potential to significantly impact upon any of the key characteristics of LCA H1 under present and future baselines. This will result in a negligible magnitude of change and a negligible level of effect which is Not Significant.

Magnitude of change:
Negligible

Type of effect:
Temporary Adverse

Level of effect:
Negligible

Significance:
Not Significant

Year 15

There would be no change in comparison to Operation Phase Year 1. The limited amount of reinforcement planting at key locations on and close to the boundary of Bristol Airport would be fully established but their presence would have no impact upon the perceptual effects pathways via which any landscape effects would be experienced in LCA H1. There will be no change to the magnitude of landscape change and hence to the level of effect assessed for Operation Phase Year 1.

Magnitude of change:
Negligible

Type of effect:
Permanent Adverse

Level of effect:
Negligible

Significance:
Not Significant

Table 9F.6 Assessment of landscape effects: LCA J3: Chew Valley Rolling Farmland

LCA J3: Chew Valley Rolling Farmland

Overall landscape sensitivity (see Appendix 9B): Medium

Minimum separation distance to boundary of Bristol Airport: 0.4km

Assessment of effects**Operation Phase****Commentary****Year 1**

There will be no loss of landscape elements within LCA J3 with indirect landscape effects being restricted to the potential presence of the components of the Proposed Development including any incremental increase in night time lighting levels. Perceptual changes may result from increases in the number of aircraft movements.

The primary effects pathway will therefore be visual. Review of the comparative ZTV (**Figure 9.4**) shows that there will be only a few small areas in LCA J3 from where views of any of the built components of the Proposed Development will potentially be available. Given the high level of screening that is provided by the characteristic hedgerow and tree cover within LCA J3, it is unlikely that the visual effects pathway will function in any part of the LCA, hence none of the built components of the Proposed Development will be discernible. This assessment is supported by the absence of any views from the closest edge of LCA J3 (**Figure 9.10**) and described in paragraph 9.11.22 of **Chapter 9: Landscape and Visual**. The effects upon perceptual characteristics of LCA J3 during the day time will be confined to the small-scale increase in the numbers of aircraft movements discernible within the LCA. These will only result in an incremental change to the effects arising from the present pattern of aircraft movements to the east of the runway in the context of which tranquillity levels are stated to be moderate to moderate-high, with tranquillity and remoteness stated to be key attributes of the baseline in LCA J3.

The effects upon the night time perceptual characteristics of LCA J3 due to changes in the lighting regime will be minimal given the minimal availability of views towards the baseline light sources at Bristol Airport and the mitigation measures to be embedded in the lighting design. The principal potential effects pathway will be through an increase in skyglow above the horizon in the direction of Bristol Airport. Minimal existing skyglow was observed during the night time site visit. The lighting design and strategy set out in the Lighting Impact Assessment¹ is predicated upon the design of floodlights to ensure that no light escapes upwards, hence there will be no increase in the baseline level of skyglow. This should ensure that existing minimal levels of skyglow across LCA J3 are maintained after the Proposed Development becomes operational.

In summary, by Operation year 1 the Proposed Development will result in no changes to the negligible level of effects generated by the presence of built components and car parking at Bristol Airport currently sustained in LCA J3 that are highly likely to be sustained in 2026 taking into account the future baseline changes and the changes arising from the relevant components and operation of the 10 mppa development. There may be minor incremental changes to some perceptual characteristics from additional aircraft movements (landing and taking-off) in addition to the changes resulting from gradual establishment of the 10 mppa operational programme. At night-time it is assessed that any incremental changes to the baseline lighting will be limited to skyglow. These minimal changes are assessed as not having the potential to significantly impact upon any of the key characteristics of LCA J3 under present and future baselines. This will result in a negligible magnitude of change and a negligible level of effect which is Not Significant.

Magnitude of change: Negligible	Type of effect: Temporary Adverse	Level of effect: Negligible	Significance: Not Significant
Year 15	There would be no change in comparison to Operation Phase Year 1. The limited amount of reinforcement planting at key locations on and close to the boundary of Bristol Airport would be fully established, but their presence would have no impact upon the perceptual effects pathways via which any landscape effects potentially experienced in LCA J3. There will be no change to the magnitude of landscape change and hence to the level of effect assessed for Operation Phase Year 1.		
Magnitude of change: Negligible	Type of effect: Permanent Adverse	Level of effect: Negligible	Significance: Not Significant

Table 9F.7 Assessment of landscape effects: LCA 1: Thrubwell Farm Plateau

LCA 1: Thrubwell Farm Plateau	
Overall landscape sensitivity (see Appendix 9B): Medium	
Minimum separation distance to boundary of Bristol Airport: 0.3km	
Assessment of effects	
Operation year	Commentary
Year 1	<p>There will be no loss of landscape elements within LCA 1 with indirect landscape effects being restricted to the potential presence of the components of the Proposed Development including any incremental increase in night time lighting levels, principally from the proposed East Pier. Perceptual changes may result from increases in the number of aircraft movements.</p> <p>The primary effects pathway will therefore be visual. Review of the comparative ZTV (Figure 9.4) shows that approximately sixty percent of LCA 1 is covered by the ZTV, although its calculation makes no allowance for the screening provided by the hedgerows and tree cover. Site observations lead to the assessment that views of both the baseline components and the built components of the Proposed Development are and will continue to be rare due to the vegetation screening and the resultant moderate sense of visual enclosure. There will be no parts of LCA 1 where only components of the Proposed Development will potentially be visible. Any occasional, heavily filtered views toward the airport which may include the closest components of the Proposed Development such as the eastern walkway and pier will not alter any of the LCA's key characteristics.</p>

LCA 1: Thrubwell Farm Plateau

The effects upon perceptual characteristics of LCA 1 during the day time will be confined to the small-scale increase in the numbers of aircraft movements discernible within the LCA in addition to those that will occur as the 10 mppa development becomes fully operational in the future baseline. Any increases should be assessed in the context of relatively low baseline levels of tranquillity within LCA 1 which have been assessed by Campaign to Protect Rural England (CPRE)³ and in the established operational context of the majority of landing aircraft movements being from the east and therefore likely to pass over or close to LCA 1.

The effects upon the night time perceptual characteristics of LCA 1 due to changes in the lighting regime will be negligible, given the minimal availability of views towards the light sources at Bristol Airport, especially when intervening vegetation cover is in leaf. Any incremental changes would be confined to the northern edge of LCA 1 and may only be discernible in winter months.

In summary, by Operation Phase Year 1 the Proposed Development will result in minimal changes to the negligible level of effects generated by the presence of built components and car parking at Bristol Airport that are currently experienced via a visual effects pathway. There may be minor incremental changes to some perceptual characteristics from additional aircraft movements (landing and taking-off) in addition to the changes resulting from gradual establishment of the 10 mppa operational programme. At night-time it is assessed that incremental changes to the baseline lighting will be confined to the northern edge of this small LCA, where some lighting sources within Bristol Airport may already be visible. The Lighting Impact Assessment⁴ demonstrates that the incremental increases in lighting associated with the closest components of the Proposed Development, such as the East Pier and the east taxiway, will not exceed lighting levels appropriate to a rural area i.e. Environmental Zone E2 as defined in Institute of Lighting Professionals (ILP) guidance⁴. These minor changes are assessed as not having the potential to significantly impact upon any of the key characteristics of LCA 1 under the current and future baseline such as the rectilinear field pattern and parkland at Butcombe Court.

Magnitude of change:
Negligible

Type of effect:
Temporary Adverse

Level of effect:
Negligible

Significance:
Not Significant

Year 15

The limited amount of reinforcement planting proposed under the integrated/embedded mitigation masterplan at key locations on and close to the boundary of Bristol Airport would be fully established but its presence would have no impact upon the perceptual effects pathways via which any landscape effects would be experienced in LCA 1. There is some potential that under the future baseline by 2041 chalara and natural loss of mature hedgerow and parkland trees without adequate replacement could result in views becoming more open. This future baseline scenario could result in the closest components of the Proposed Development, such as the east walkway and pier, becoming apparent across higher proportion of LCA 1. Application of this worst-case scenario could result in the magnitude of landscape change potentially increasing to low by Operation Phase Year 15 resulting in a minor level of effect although this would remain Not Significant.

Magnitude of change:
Low

Type of effect:
Permanent Adverse

Level of effect:
Minor

Significance:
Not Significant

³ Campaign to Protect Rural England (2007). Tranquil Places, [online]. Available at: www.cpre.org.uk/resources/countryside/tranquil-places [Checked 12/03/18].

⁴ Institute of Lighting Professionals (2013). Professional Lighting Guide 04: Guidance on undertaking environmental lighting impact assessments. ILP.

Table 9F.8 Assessment of landscape effects: LCA 2: Chew Valley

LCA 2: Chew Valley			
Overall landscape sensitivity (see Appendix 9B): Medium			
Minimum separation distance to boundary of Bristol Airport: 1.6km			
Assessment of effects			
Operation Phase	Commentary		
Year 1	<p>There will be no loss of landscape elements within LCA 2, with indirect landscape effects being restricted to the potential presence of the components of the Proposed Development, including any incremental increase in night time lighting levels. Perceptual changes may result from increases in the number of aircraft movements above or close to the LCA.</p> <p>The primary effects pathway will therefore be visual. Review of the comparative ZTV (Figure 9.4) shows that only a small proportion of LCA 2 close to Nempnett Thrubwell is covered by the ZTV. The ZTVs' calculation makes no allowance for the screening provided by the hedgerows and tree cover and it is assessed as unlikely that any views of existing, permitted and proposed built components at Bristol Airport are or will be available from the western third of LCA 2. Hence any loss of tree cover under the future baseline will not result in potential views being possible from a greater proportion of the LCA. Consequently, no visual effects pathway will be generated minimising the potential for any effects upon the LCA's landscape character.</p> <p>The effects upon perceptual characteristics of LCA 2 during the day time will be confined to the small-scale increase in the numbers of aircraft movements discernible within the LCA in addition to the future baseline changes resulting from gradual establishment of the 10 mppa operational programme. Any increases should be assessed in the context of varying baseline levels of tranquillity across LCA 2 which have been assessed by CPRE^{Error! Bookmark not defined.} in the established operational context of the majority of landing aircraft movement being from the east i.e. on westerly flight routes, that are likely to be routed to the north of LCA 2.</p> <p>The effects upon the night time perceptual characteristics of LCA 2 due to changes in the lighting regime will be negligible given the minimal availability of views towards the light sources at Bristol Airport, especially when intervening vegetation cover is in leaf and the embedded mitigation measures set out in the Lighting Impact Assessment¹. Any incremental changes would be confined the small proportion of the LCA within the comparative ZTV and may only be discernible in winter months.</p> <p>In summary, by Operation Phase Year 1 the Proposed Development will result in minimal changes to the negligible level of effects generated by the presence of built components and car parking at Bristol Airport that are currently experienced, and which will continue to be experienced via a visual effects pathway. There may be minor incremental changes to some perceptual characteristics from additional aircraft movements (landing and taking-off). At night-time it is assessed that incremental changes to the baseline lighting will likewise be negligible. These minor changes are assessed as not having the potential to significantly impact upon any of the key characteristics of LCA 2 including those relating to views across the Chew and Yeo Valleys and over the Blagdon and Chew Valley Lakes.</p>		
Magnitude of change: Negligible	Type of effect: Temporary Adverse	Level of effect: Negligible	Significance: Not Significant
Year 15	<p>There would be no change in comparison to Operation Phase Year 1 even allowing for the potential for increased losses of hedgerow, woodland and orchard trees. The limited amount of reinforcement planting proposed in the integrated/embedded mitigation masterplan at key locations on and close to the boundary of Bristol Airport would be fully established but its presence would have no impact upon the perceptual effects pathways via which any landscape effects would be experienced in LCA 2. There will be no change to the magnitude of landscape change and hence to the level of effect assessed for Operation Phase Year 1.</p>		
Magnitude of change: Negligible	Type of effect: Permanent Adverse	Level of effect: Negligible	Significance: Not Significant

Table 9F.9 Assessment of landscape effects: LCA 4: Mendip Slopes

LCA 4: Mendip Slopes			
Overall landscape sensitivity (see Appendix 9B): High			
Minimum separation distance to boundary of Bristol Airport: 6.0km			
Assessment of effects			
Operation Phase	Commentary		
Year 1	<p>There will be no loss of landscape elements within LCA 4. The separation distance of 6km minimum ensures that individual components of the Proposed Development will not be identifiable in the same manner that existing individual components at Bristol Airport cannot be discerned. Landscape effects will be restricted to any incremental increase in night time lighting levels. Whilst perceptual changes may result from increases in the number of aircraft movements review of the flight routing maps in Appendix A of the 2017 Bristol Airport Operations Monitoring Report⁵ shows that only the EXMOR 1Z route of the easterly flight routes, which overall account for 20% of all aircraft movements, passes above or close to LCA 4.</p> <p>The primary effects pathway will therefore be visual. Review of the comparative ZTV (Figure 9.4) shows that a proportion of LCA 4 on the middle and upper north-east scarp slope is covered by the ZTV for the Proposed Development. The ZTVs' calculation makes no allowance for the screening provided by the hedgerows and tree cover. The photograph from LCA 4 (Figure 9.21) shows that none of the individual built components of the Proposed Development will be discernible, hence the day-time visual effects pathway will not result in any changes to the landscape characteristics of the LCA.</p> <p>The effects upon perceptual characteristics of LCA 4 during the day time will be confined to the small-scale increase in the numbers of aircraft movements discernible within the LCA. Any increases should be assessed in the context of varying baseline levels of tranquillity across LCA 4 which have been assessed by CPRE⁶ Error! Bookmark not defined. and in the established operational context of the majority of landing aircraft movement being from the east and therefore routed to the north of LCA 4. Site visits show that aircraft movements can be identified in northern views but need to be searched for as opposed to being obvious in casual views. Noise was not noted when aircraft were observed taking off or landing. This reduces the potential for the proposed increase in aircraft movements to have effects upon perceptual qualities and tranquillity.</p> <p>Review of the Lighting Impact Assessment¹ demonstrates that the effects upon the night time perceptual characteristics of LCA 4 due to changes in the lighting regime will be minimal. The horizontal angle of view within which lighting at Bristol Airport is visible will not be extended under the Proposed Development. The number of light sources within Bristol Airport may be slightly increased, however, the design of any future lighting will ensure that outward light spill is minimised and any change will be incremental. The limited amount of proposed additional lighting will be designed to prevent upward lighting and upward reflection from downward lighting. This will minimise any contribution to the skyglow that is sometimes visible above the northern horizon to which Bristol Airport makes a limited contribution in comparison with the city of Bristol.</p> <p>In summary, by Operation Phase Year 1 the Proposed Development will result in minimal changes to the negligible level of effects generated by the presence of Bristol Airport that are currently experienced and will continue to be experienced up to 2026 via a visual effects pathway. The potential for changes to perceptual characteristics from additional aircraft movements (landing and taking-off) in addition to the changes resulting from gradual establishment of the 10 mppa operational programme is assessed as highly unlikely. At night-time it is assessed that incremental changes to the baseline lighting will likewise be negligible. Despite the high value attributed to the LCA in the sensitivity assessment, these negligible changes are assessed as not having the potential to significantly impact upon any of the key characteristics of LCA 4 under the current and future baselines.</p>		
Magnitude of change: Negligible	Type of effect: Temporary Adverse	Level of effect: Minor	Significance: Not Significant
Year 15	<p>There would be no change in comparison to Operation Phase Year 1 as the establishment of the mitigation planting will not be visible over separation distances that are over 6km. The negligible magnitude of landscape change from the Proposed Development is assessed as being highly unlikely to combine with the anticipated</p>		

LCA 4: Mendip Slopes

long-term changes to the future baseline by 2041 to increase the overall magnitude of landscape change across LCA 4.

Magnitude of change: Negligible	Type of effect: Permanent Adverse	Level of effect: Minor	Significance: Not Significant
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Table 9F.10 Assessment of landscape effects: the Blagdon - Compton Martin Slopes LCA

The Blagdon - Compton Martin Slopes LCA

Overall landscape sensitivity (see Appendix 9B): High

Minimum separation distance to boundary of Bristol Airport: 4.1km

Assessment of effects

Operation Phase	Commentary
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Year 1

There will be no loss of landscape elements within the Blagdon - Compton Martin Slopes LCA. The minimum separation distance of 4.1km ensures that individual components of the Proposed Development will be difficult to identify, in the same manner that existing individual components at Bristol Airport are difficult to identify as shown in the photograph from Viewpoint 15 in the closest part of the LCA (**Figure 9.19**). Landscape effects will be restricted to any incremental increase in night time lighting levels. Whilst perceptual changes may result from increases in the number of aircraft movements review of the flight routing maps in Appendix A of the 2017 Bristol Airport Operations Monitoring Report⁵ shows that only the EXMOR 1Z route of the easterly flight routes, which overall account for 20% of all aircraft movements, passes above or close to this LCA.

The primary effects pathway will therefore be visual. Review of the comparative ZTV (**Figure 9.4**) shows that least elevated parts of the LCA at the base of the scarp slope will be excluded from the ZTV for the Proposed Development. These parts of the LCA include the area alongside the A368, the area to the south of Compton Martin and the northern part of the LCA that is the closest part to Bristol Airport. Once the screening effects of tree cover, tall hedgerows and, less extensively, built development, are taken into consideration the potential visual effects pathway will only be available from a small proportion of the LCA. This situation, combined with the minimal likelihood of any of the built components of the Proposed Development being identifiable within the visual context of existing built development at Bristol Airport plus completed 10 mppa built development started by November 2018, will result in the visual effects pathway resulting in no effects upon the key characteristics of the LCA during day time.

The effects upon the perceptual characteristics of the Blagdon - Compton Martin Slopes LCA during the day time will be confined to the small-scale increase in the numbers of aircraft movements discernible within the LCA. Any increases should be assessed in the context of varying baseline levels of tranquillity across the Blagdon - Compton Martin Slopes LCA which have been assessed by CPRE^{Error! Bookmark not defined.} and in the established operational context of the majority of landing aircraft movement being from the east and therefore routed to the north of this LCA. Site visits show that aircraft movements can be identified in northern views, but that they need to be searched for as opposed to being obvious in casual views. Noise was not noted when aircraft were observed taking off or landing. This reduces the potential for the proposed increase in aircraft movements to have effects upon perceptual qualities and tranquillity.

Review of the Lighting Impact Assessment¹ demonstrates that the effects upon the night time perceptual characteristics of the Blagdon - Compton Martin Slopes LCA due to changes in the lighting regime will be minimal. The horizontal angle of view within which lighting at Bristol Airport is visible will not be extended under the Proposed Development. The number of light sources within Bristol Airport may be slightly increased, however the design of the proposed lighting will ensure that outward light spill is minimised. The limited amount of proposed additional lighting will be designed to prevent upward lighting and upward reflection from downward lighting thereby minimising any contribution to the skyglow that is sometimes visible above the northern horizon to which Bristol Airport makes a limited contribution in comparison with the city of Bristol.

⁵ Bristol Airport (2017). 2017 Operations Monitoring Report.

The Blagdon - Compton Martin Slopes LCA

In summary, by Operation Phase Year 1 taking into consideration the changes identified for the future baseline for this LCA, the Proposed Development will result in minimal changes to the negligible level of effects generated by the presence of Bristol Airport that are currently sustained and which will continue to be generated via a visual effects pathway. The potential for changes to perceptual characteristics from additional aircraft movements (landing and taking-off) in addition to the changes resulting from gradual establishment of the 10 mppa operational programme is assessed as minimal. At night-time it is assessed that incremental changes to the baseline lighting will be negligible. Despite the high value attributed to the LCA in the sensitivity assessment, these negligible changes are assessed as not having the potential to significantly impact upon any of the key characteristics of the Blagdon - Compton Martin Slopes LCA under current and future baseline conditions which are all related to physical attributes present within the LCA.

Magnitude of change: Negligible	Type of effect: Temporary Adverse	Level of effect: Minor	Significance: Not Significant
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Year 15	There would be no change in comparison to Operation year 1 as the establishment of the mitigation planting will not be visible over separation distances that are over 5km (as the closest, northern part of the LCA is outside the comparative ZTV). The negligible magnitude of change generated by the operation of the Proposed Development by Operational Phase Year 15 is assessed as being highly unlikely to combine with the anticipated long-term changes to the LCA's future baseline by 2041 to increase the overall magnitude of landscape change across the LCA
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Magnitude of change: Negligible	Type of effect: Permanent Adverse	Level of effect: Minor	Significance: Not Significant
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Table 9F.11 Assessment of landscape effects: Northern Slopes LCA

The Northern Slopes LCA

Overall landscape sensitivity (see Appendix 9B): High

Minimum separation distance to boundary of Bristol Airport: 5.1km

Assessment of effects

Operation Phase	Commentary
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Year 1	<p>There will be no loss of landscape elements within the Northern Slopes LCA. The minimum separation distance of 5.1km ensures that individual components of the Proposed Development will be difficult to identify in the same manner that existing individual components at Bristol Airport are difficult to identify as shown in the photographs from Viewpoints 16 and 18 in the closest parts of the LCA (Figures 9.19 and 9.20). This situation will not change under the future baseline at 2026. This assessment is verified by reference to the photomontage prepared from Viewpoint 16 (Figure 9.32). Landscape effects will be restricted to any incremental increase in night time lighting levels and perceptual changes that may result from increases in the number of aircraft movements taking into account future changes under the operational of the permitted 10 mppa development. Review of the flight routing maps in Appendix A of the 2017 Bristol Airport Operations Monitoring Report⁵ shows that only the EXMOR 1Z route of the easterly flight routes, which overall account for 20% of all aircraft movements, passes above or close to this LCA. It is therefore assessed that any changes to perceptual characteristics due to the small-scale proposed increase in flight numbers would be negligible.</p>
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The primary effects pathway will therefore be visual. Review of the comparative ZTV (**Figure 9.4**) shows that the least elevated parts of the LCA at the base of the northern slope and in the combs within the LCA will be excluded from the ZTV for the Proposed Development. Once the screening effects of extensive tree cover in Rowberrow Warren and on the lower northern slopes at Sandford Hill, Lyncombe Hill, the northern slopes of Dolebury Warren, Mendip Lodge Wood and the northern slopes of Burrington Ham are taken into consideration, it is assessed that day time and night time effects sustained via a visual effects pathway will only potentially be

The Northern Slopes LCA

sustained across a small proportion of the Northern Slopes LCA and that they will not significantly impact upon any of the characteristic wide views to surrounding landscapes and the coast.

The effects upon perceptual characteristics of the Northern Slopes LCA during the day time will be confined to the small-scale increase in the numbers of aircraft movements discernible within the LCA. Any increases should be assessed in the context of varying baseline levels of tranquillity across the LCA which have been assessed by CPRE^{Error! Bookmark not defined.} in the established operational context of the majority of landing aircraft movement being from the east i.e. on westerly flight routes that are to be routed at least 6km to the north of this LCA. Site visits show that aircraft movements can be identified in northern and north-eastern views, but that they need to be searched for as opposed to being obvious in casual views. Noise was not noted when aircraft were observed taking off or landing. This reduces the potential for the proposed increase in aircraft movements to have effects upon the Northern Slopes LCA's perceptual qualities and tranquillity. Tranquillity will continue to be more heavily influenced by traffic movements on the A38 and A368 and in some parts of the LCA by formal and informal recreation activities. Review of the traffic and transport assessment in **Chapter 6** shows that increased traffic levels on the relevant section of the A38 generated by the operation of the Proposed Development will be under 5%.

The review of the Lighting Impact Assessment¹ demonstrates that the effects upon the night time perceptual characteristics of the Northern Slopes LCA due to changes in the lighting regime will be minimal. The horizontal angle of view within which lighting at Bristol Airport is visible (**Figure 9.25**) will not be extended under the Proposed Development. The number of light sources within Bristol Airport may be slightly increased however the design of the proposed lighting will ensure that outward light spill is minimised and any change will be incremental. The limited amount of proposed additional lighting will be designed to prevent upward lighting and upward reflection from downward lighting thereby minimising any contribution to the skyglow that is sometimes visible above the northern horizon.

In summary, by Operation Phase Year 1 the Proposed Development will result in minimal changes to the negligible level of effects generated by the presence of Bristol Airport that are currently experienced and that will continue to be experienced via a visual effects pathway. This is shown in the photomontage that has been prepared for one of the most open, elevated and closest locations within the LCA. The potential for changes to perceptual characteristics from additional aircraft movements (landing and taking-off) in addition to those that will be generated by the operation of the permitted 10 mppa development is assessed as minimal. At night-time it is assessed that incremental changes to the baseline lighting will be negligible. Despite the high value attributed to the LCA in the sensitivity assessment, these negligible changes are assessed as not having the potential to significantly impact upon any of the key characteristics of the Northern LCA under the current and future baselines which are mostly related to physical attributes present within the LCA.

Magnitude of change: Negligible	Type of effect: Temporary Adverse	Level of effect: Minor	Significance: Not Significant
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Year 15	There would be no change in comparison to Operation Phase Year 1 as the establishment of the mitigation planting will not be visible over separation distances that are over 5km. There is potential for some felling in the extensive Rowberrow Warren that could increase the availability of outward views but the baseline difficulty in discerning Bristol Airport's components would continue to apply.
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Magnitude of change: Negligible	Type of effect: Permanent Adverse	Level of effect: Minor	Significance: Not Significant
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Table 9F.12 Assessment of landscape effects: Plateau LCA

The Plateau LCA	
Overall landscape sensitivity (see Appendix 9B): High	
Minimum separation distance to boundary of Bristol Airport: 5.7km	
Assessment of effects	
Operation Phase	Commentary
Year 1	<p>There will be no loss of landscape elements within the Plateau LCA. The minimum separation distance of 5.7km ensures that individual components of the Proposed Development will be difficult to identify in the same manner that existing individual components at Bristol Airport are difficult to identify as shown in the photographs from Viewpoints 16 and 17 in the closest and most elevated parts of the LCA (Figures 9.19 and 9.20). This situation will not be altered with the completion of the 10 mppa components started by November 2018 or development introduced under General Permitted Development Order. This assessment is verified by reference to the photomontages prepared from these two viewpoints (Figures 9.32 and 9.33, respectively). Landscape effects will be restricted to any incremental increase in night time lighting levels and perceptual changes that may result from increases in the number of aircraft movements in addition to those resulting from the operation of the 10 mppa development. Review of the flight routing maps in Appendix A of the 2017 Bristol Airport Operations Monitoring Report⁵ shows that only the EXMOR 1Z route of the easterly flight routes, which overall account for 20% of all aircraft movements, passes above or close to this LCA. It is therefore assessed that any changes to perceptual characteristics due to the small-scale proposed increase in flight numbers would be negligible even in the context of moderate to moderate-high baseline tranquillity levels.</p> <p>The primary effects pathway will therefore be visual. Review of the comparative ZTV (Figure 9.4) shows that the comparative ZTV only extends across the northern edge of the Plateau LCA and across the northern and north-eastern slopes of the elevated area around Beacon Batch and the Wireless Station at Rainsbatch. This coverage only accounts for a small proportion of the third of the LCA within the study area. The comparative ZTV also shows that there will be no additional coverage of the ZTV in the Plateau LCA due to the operation of the Proposed Development. In these circumstances it is assessed that the operation of the Proposed Development will not significantly impact upon any of the key characteristics, including the extensive views. It should be noted that these extensive views are particularly directed to the west whilst, when visible, the Proposed Development will be seen in views directed to the north.</p> <p>The effects upon perceptual characteristics of the Northern Slopes LCA during the day time will be confined to the small-scale increase in the numbers of aircraft movements discernible within the LCA. Any increases should be assessed in the context of baseline levels of tranquillity across the LCA which have been assessed by CPRE^{Error! Bookmark not defined.} in the established operational context of existing aircraft movements. Site visits show that aircraft movements can be identified in northern views, but that they need to be searched for as opposed to being obvious in casual views. Noise was not noted when aircraft were observed taking off or landing. This reduces the potential for the proposed increase in aircraft movements to have effects upon the Plateau LCA's perceptual qualities and tranquillity. Tranquillity will continue to be more heavily influenced by traffic movements on the B3134 and in some parts of the LCA by formal and informal recreation activities.</p> <p>The Lighting Impact Assessment⁴ demonstrates that the effects upon the night time perceptual characteristics of the Plateau LCA due to changes in the lighting regime will be limited. The horizontal angle of view within which lighting at Bristol Airport is visible, as shown in the night time view from Viewpoint 16 (Figure 9.25), will not be extended under the Proposed Development. The number of light sources within Bristol Airport may be slightly increased, however the design of the proposed lighting will ensure that outward light spill is minimised and any change will be incremental, especially in the context of the wider range of lighting sources that are visible from the most elevated and remote parts of the LCA. The limited amount of proposed additional lighting will be designed to prevent upward lighting and upward reflection from downward lighting thereby minimising any contribution to the skyglow that is sometimes visible above the northern horizon to which the operation of Bristol Airport only makes an incremental contribution. The lighting in the Silver Zone car park extension (Phases 1 and 2) will be designed to include Passive Infrared Sensors (PIRs) which will result in the lighting of these carparks only being periodic and partial.</p> <p>In summary, by Operation Phase Year 1, accounting for the changes identified in the future baseline, the Proposed Development will result in minimal changes to the level of effects generated by the presence of Bristol</p>

The Plateau LCA

Airport that are currently experienced and that will continue to be sustained via a visual effects pathway. This is shown in the photomontage (refer to **Figure 9.32**) that has been prepared the most open and elevated location within the LCA. The potential for changes to perceptual characteristics from additional aircraft movements (landing and taking-off) in addition to the changes resulting from gradual establishment of the 10 mppa operational programme is assessed as minimal. At night-time it is assessed that incremental changes to the baseline lighting will be negligible. Despite the high value attributed to the LCA in the sensitivity assessment, these negligible changes are assessed as not having the potential to significantly impact upon any of the key characteristics of the Plateau LCA under current and future baselines.

Magnitude of change:
Negligible

Type of effect:
Temporary Adverse

Level of effect:
Minor

Significance:
Not Significant

Year 15

Taking into account the potential long-term future baseline changes there would be no change in comparison to Operation Phase Year 1 as the establishment of the mitigation planting will not be visible over separation distances that are over 5km.

Magnitude of change:
Negligible

Type of effect:
Permanent Adverse

Level of effect:
Minor

Significance:
Not Significant

Appendix 9G

Visual Assessment Tables

Table 9G.1 Assessment of visual effects: visual receptors in Lulsgate Bottom

Visual receptors in Lulsgate Bottom	
<p>Visual receptor sensitivity: High due to residential visual receptors being assessed as possessing high susceptibility in accordance with GLVIA3¹ and the high likelihood that these receptors attach medium or high value to the views that are available from the windows and curtilage of their properties.</p>	
Relevant Figures:	The location of this group of visual receptors is shown on Figure 9.34 .
<p>Minimum and maximum separation distance to boundary of Bristol Airport: Receptor group is located at separation distances of 15m to 135m from the northern and north-eastern boundaries of Bristol Airport.</p>	
Assessment of effects – Operation Phase Years 1 & 15	
Commentary	
<p>Residential visual receptors in the community of Lulsgate Bottom are located at properties that are either sited in a sub-group to the east of the A38; a sub-group to the south of the eastern section of Downside Road; or a sub-group along the north side of the eastern section of Downside Road and off the cul-de-sac of Coombe Dale.</p> <p>The components of the Proposed Development that are to be sited closest to this group of residential visual receptors will be the new gyratory road with internal surface car parking, the eastern walkway and east pier and the proposed road works on the A38. The gyratory road and car parking will have a similar visual role to the existing surface car parking and internal circulation roads in the same part of the northern area of Bristol Airport. As noted under the baseline description, views of the parked and moving vehicles are heavily filtered by the existing mature belt of tree and shrub planting around the northern and eastern sides of the carpark, as well as the block of woodland south of the junction of Downside Road and A38. This screening will be continued for the Proposed Development other than localised loss of trees and shrubs in the woodland block to the immediate south of Downside than will be removed to allow the A38/Downside Road junction works. Under the integrated /embedded mitigation masterplan some parkland trees will be planted in the grassland field south of the properties on the southern side of Downside Road. This will provide additional filtering in the southern views available to these residents from their rear windows and gardens, particularly by Year 15. It is assessed that changes in these views from the operation of the proposed gyratory road and carparks will be difficult to identify and will not exceed a negligible magnitude of visual change.</p> <p>The proposed eastern walkway and east pier will have a minimum separation distance of between 160m and 240m from properties to the south and north of Downside Road. Existing built development is located in the footprint of the proposed east pier and eastern end of the walkway, including the current administration building in the old control tower. These current baseline buildings are at least two storeys high i.e. at a comparable height to the proposed 10.1m high eastern walkway and east pier. As the current buildings within the footprint are not visible in visual receptors' baseline views from ground level locations in Lulsgate Bottom, it is assessed that visual receptors will have no views of the proposed eastern walkway and east pier and they will make no contribution to any changes in views to this group of visual receptors due to the Proposed Development.</p> <p>Proposed works on the section of A38 that passes through Lulsgate Bottom will be visible to some of the residential visual receptors in properties in the eastern receptor sub-group. Residents in approximately six properties that have a frontage onto the A38 will have close distance views, whilst the residents in other properties in this sub-group will have partial, often oblique views, that will be heavily framed and partly screened by intervening built development. The current baseline lighting regime will continue. No residents in properties in the sub-groups of Lulsgate Bottom sited alongside Downside Road or on Coombe Dale will have any views, due to high levels of intervening tree cover, including that within the woodland south of the junction of Downside Road and A38 which will be reduced in area as a result of the A38 works. Any changes in the composition of the foreground views available to residential visual receptors in approximately six properties fronting onto the affected section of A38 must be assessed in the context of the baseline view of a busy 'A' road and the current British Standard baseline lighting. The magnitude of visual change for these</p>	

¹ The Landscape Institute and Institute of Environmental Management and Assessment (2013). Guidelines for Landscape and Visual Impact Assessment. 3rd edition. London. Routledge.

Visual receptors in Lulsgate Bottom

residential visual receptors is assessed as being temporarily medium during construction of the A38 improvement (scheduled to last from October 2019 to April 2020 in **Table 2.4**). By Operation Phase Year 1 the magnitude of visual change will decrease to low and remain so throughout the Operational Phase.

In summary, at Operation Phase Year 1, the Proposed Development will result in a negligible magnitude of visual change for the residential visual receptors located in the community of Lulsgate Bottom. Despite the proximity of these residents to Bristol Airport and to some of the components of the Proposed Development, it is assessed that the features of the current and future baseline which minimise views of built development, car parking and vehicular movement in Bristol Airport and on the A38 will continue to be effective. These features include the difference in elevation between these properties and the northern area of Bristol Airport and the high level of existing mature vegetation screening. A proportion of the residents in properties to the north of Downside Road and residents in properties south of Downside Road will have filtered views of the new gyratory road and internal surface car parking, especially in winter months, as per the current baseline for northern area surface car parking. Proposed parkland planting between the closest properties and the existing mature boundary planting will support the screening function of the boundary planting. The construction of the proposed works on the A38 will temporarily (seven months) result in low magnitudes of visual change for residential visual receptors in a small number (approximately six) properties, but will not extend into the Operation Phase with the lighting regime remaining as under the current baseline, hence the overall assessment is that a high sensitivity group of visual receptors will sustain negligible magnitudes of visual change and a resultant minor level of effect that will be not significant for Operational Phase Year 1 and Year 15.

Magnitude of change Negligible	Type of effect: Permanent Adverse	Level of effect: Minor	Significance Not Significant
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Table 9G.2 Assessment of visual effects: visual receptors in Hyatt Wood Road/Oatfield

Visual receptors in Hyatt Wood Road/Oatfield			
<p>Visual receptor sensitivity: High due to residential visual receptors being assessed as possessing high susceptibility in accordance with GLVIA3¹ and the high likelihood that these receptors attach medium or high value to the views that are available from the windows and curtilage of their properties.</p>			
<p>Relevant Figures: The location of this group of visual receptors is shown on Figure 9.34. The baseline views from the Public Right of Way (PRoW) to the east of this group of residential visual receptors (and north of Downside Farm) as represented by Viewpoint 2 are shown in Figure 9.8.</p>			
<p>Minimum and maximum separation distance to boundary of Bristol Airport: Receptor group is located at separation distances of 80m (the Coppice) to 260m north of the northern boundary of Bristol Airport.</p>			
Assessment of effects – Operation Phase Years 1 & 15			
Commentary			
<p>The components of the Proposed Development that are to be sited closest to this group of residential visual receptors will be the new gyratory road with internal surface car parking and the multi-storey car park (MSCP) Phase 3. The intervening tree cover, especially which sited on the northern bund, will screen potential views of the new gyratory road and surface carparking in the same manner as views of the existing surface carparking are screened. MSCP Phase 3, at a height of 16m, will be at least partly visible from some locations within the community. It will be a visual extension of the MSCP Phase 1 and is likely to adopt a similar palette of surface materials, which will reduce potential visual contrast. In some views it could help to screen the hotel and it will always be seen in the visual context of the existing built development in this part of the northern area of Bristol Airport, including the ATC tower and some of the western walkway. It will not extend the horizontal angle of view occupied by the built development nor will it extend above the southern horizon, which in this section of the southern view is sometimes formed by a coalescence of the taller components of the existing built development at Bristol Airport.</p>			
<p>The proposed western extension to the terminal building will slightly increase its scale and mass and therefore its visual role in views where views towards its upper part are available. The proposed canopy whilst visible will be a minor change in visual detail. The upper section of the proposed eastern walkway is likely to be visible in some south-eastern views that are available from the eastern and southern edge of the community, although, as shown in the baseline photograph from Viewpoint 2 (Figure 9.8), built development of a similar height in this part of Bristol Airport's northern area can be readily screened by intervening built development and tree cover.</p>			
<p>In summary, some of the taller components of the Proposed Development will be visible within the visual context of the taller existing built development in Bristol Airport's northern area. This new development will not extend the horizontal angle of view affected by the existing development and MSCP Phase 3 could screen the hotel, whose windows make it a relatively prominent component in some residents' views. Some of the 15m high turbines on the top of MSCP Phase 3 will be visible, but the lower ground level elevation of the MSCP site will ensure that they will be seen against the background of the existing and proposed built development on the more elevated part of the northern area on the top of the Broadfield Down Plateau, such as the terminal building. It is unlikely that any residential visual receptors in this community, who have no views of Bristol Airport under the current and future baseline due to screening and/or their properties' orientation, will have views of the Proposed Development. A good proportion of residential visual receptors in this community will continue to have no views or just partial oblique views of the taller components at Bristol Airport from their properties' windows or from within their curtilage. The overall assessment is that a high sensitivity group of visual receptors will sustain negligible magnitudes of visual change and a resultant minor level of effect that will be not significant for Operational Phase Year 1 and Year 15.</p>			
Magnitude of change Negligible	Type of effect: Permanent Adverse	Level of effect: Minor	Significance: Not Significant

Table 9G.3 Assessment of visual effects: visual receptors in Downside, east of Cook's Bridle Path

Visual receptors in Downside, east of Cook's Bridle Path

Visual receptor sensitivity: High due to residential visual receptors being assessed as possessing high susceptibility in accordance with GLVIA3¹ and the high likelihood that these receptors attach medium or high value to the views that are available from the windows and curtilage of their properties.

Relevant Figures: The location of this group of visual receptors is shown on **Figure 9.34**.
The baseline view from this section of Downside Road as represented by Viewpoint 1 is shown in **Figure 9.7**.
The photomontage of the Proposed Development from Viewpoint 1 is shown in **Figure 9.27**.

Minimum and maximum separation distance to boundary of Bristol Airport: The receptor group is located at separation distances of 15m (Melody Cottage) to 480m north-west of the western boundary of the northern area of Bristol Airport (420m from the corner of the acoustic wall alongside the west apron).

Assessment of effects – Operation Phase Years 1 & 15**Commentary**

The component of the Proposed Development that is to be sited closest to this group of residential visual receptors will be the MSCP Phase 3. Other components that have the potential to be visible are the new service yard and the extensions and canopy at the terminal building. The photomontage (**Figure 9.27**) shows that the MSCP Phase 3, with a height of 16m, will extend above a section of the tall boundary hedgerow alongside the North Side Road and will visually extend the form and mass of the hotel in the baseline view. The turbines proposed on top of the MSCP will be visible but will be small-scale components in the view and have precedents in scale and form in the views, such as the floodlight columns and the communications mast in the middle ground. It should be noted that under the future baseline of the permitted 10 million passengers per annum (mppa) development, this section of the south-eastern view will be occupied by Phases 1a and 1b of the MSCP that possess the same height and mass as the proposed Phase 3, albeit at a slightly greater separation distance. The consequence is that the proposed MSCP Phase 3 will result in only a small-scale change in the future baseline views available to residential visual receptors in this community. The photomontage shows that the permitted and proposed MSCPs will screen views of the existing terminal building and the proposed canopy. The upper section of the proposed western extension of the terminal building will be visible above a short section of the horizon, between the hotel and the ATC tower, where it is partly filtered by the mature trees close to Cook's Farm which will reduce its visual role. The lower level proposed development at the new service yard will be screened by existing development in this part of the northern area.

The only other change in some residential visual receptors' view from this community will be the tail fins of aircraft using Stands 38-39. Tail fins will periodically be visible above a narrow section of the southern horizon, where tail fins are periodically visible under the current baseline. There will be no views of the other large-scale components of the Proposed Development in the northern area including the eastern walkway. The ATC tower and the hotel will continue to be the most prominent components in views for most residents in this community. The proposed reinforcement planting of the tall hedgerow on the western boundary of the northern area that is Item 1 on the integrated/embedded mitigation masterplan will not increase the boundary hedgerow's height, hence the upper levels of the MSCP Phase 3 will remain visible by Operation Phase Year 15 screening baseline views of Phase 1.

In summary, the Proposed Development will result in a small-scale intensification in the visual role of the built development in the northern area of Bristol Airport in residential visual receptors' often oblique south-eastern views. Once the MSCP Phase 1 is completed, the Proposed Development will not extend the horizontal angle of view occupied by built development. There will be small-scale changes to the composition of the horizon within this horizontal angle of view, but the ATC tower will retain its prominence. Where residential visual receptors have open or framed and usually oblique views, the magnitude of change will vary between low and negligible with minor or occasionally moderate levels of effect. There will be minimal variation between Operation Phase Year 1 and Year 15.

A low magnitude of change will be sustained by residential visual receptors at properties at the eastern end of this section of Downside Road, principally at Melody Cottage due to the closer presence of MSCP Phase 3. The magnitude of visual change experienced by these residential visual receptors will be low with a moderate level of effect which **Table 9.9** indicates is possibly significant. It is considered effects will be significant at the closest and most affected property (Melody Cottage) and not significant at the other properties at the eastern end of this section of Downside Road. The assessment of significant adverse effects for residents at Melody Cottage at Operation Phase Year 1 takes into consideration the future baseline at Operation Phase Year 1 when the completed MSCP Phase 1 will be completed. MSCP Phase 1 will be only highly partially visible in oblique views from the five windows in the Melody Cottages' southern frontage with substantial screening provided by the planting on the outer slope of the northern perimeter bund (which will have become more established by 2026) augmented by the acoustic fencing sited on the top of the closest section of the bund. These screening features will be less effective for the proposed Phase 3 of the MSCP Phase 3 due to its western half being located directly to the south of Melody Cottage at a minimum separation distance of ~100m; they will provide

Visual receptors in Downside, east of Cook's Bridle Path

screening of the lower floors of the eastern half of Phase 3. Item 2 of the integrated/embedded mitigation masterplan will provide additional reinforcement planting on the western end of the northern bund. Item 1 will reinforce the existing partial screen planting in the areas of scrub and bramble planting directly opposite Melody Cottage in the area that is completely isolated by the bifurcated North Side Road and Downside Road. In this sub-area the integrated/embedded mitigation masterplan proposes a high proportion of tree planting, including a considerable amount of large stock (extra heavy standard trees). This is to reinforce the baseline and future baseline screening and maximise screening potential in this resident's southern views towards the western end of the MSCP Phase 3, especially from the Cottage's three ground floor south-facing windows. Whilst this planting is unlikely to be fully established in Operation Phase Year 1, it should be fully established by Operation Phase Year 15 by when the level visual effects for the residents at Melody Cottage are likely to reduce to low but not significant.

A negligible magnitude of change will be sustained by most of residential visual receptors in this community due to the partial views of the proposed western terminal extension, the western end of MSCP Phase 3 and associated wind turbines and, to a lesser extent, the slight increase in the number of aircraft tail fins periodically visible. These receptors will experience a minor level of effect which will be not significant in Operation Years 1 and 15.

Magnitude of change Low (Melody Cottage)	Type of effect: Permanent Adverse	Level of effect: Moderate	Significance: Significant at Operation Phase Year 1/Not Significant at Operation Phase Year 15
Low (other properties at the eastern end of Downside Road)	Permanent Adverse	Moderate	Not Significant
Negligible (all other properties)	Permanent Adverse	Minor	Not Significant

Table 9G.4 Assessment of visual effects: visual receptors in Downside, west of Cook's Bridle Path

Visual receptors in Downside, west of Cook's Bridle Path			
<p>Visual receptor sensitivity: High due to residential visual receptors being assessed as possessing high susceptibility in accordance with GLVIA3¹ and the high likelihood that these receptors attach medium or high value to the views that are available from the windows and curtilage of their properties.</p>			
<p>Relevant Figures: The location of this group of visual receptors is shown on Figure 9.34. The photomontage of the Proposed Development from Viewpoint 1 is shown in Figure 9.27 although this viewpoint is slightly to the east of this community and consequently shows a more open view that is available to residential visual receptors.</p>			
<p>Minimum and maximum separation distance to boundary of Bristol Airport: The receptor group is located at a minimum separation distance of 480m north-west of the western boundary of the northern area of Bristol Airport (420m from the corner of the acoustic wall alongside the west apron) and a maximum separation distance of 930m at the western end of the community.</p>			
Assessment of effects – Operation Phase Years 1 & 15			
Commentary			
<p>The component of the Proposed Development that is to be sited closest to this group of residential visual receptors will be the MSCP Phase 3. Other components that have the potential to be visible are the new service yard and the extensions and canopy at the terminal building. It is assessed that high levels of vegetation cover, principally mature trees, within the part of Downside to the west of Cook's Bridle Path and in the intervening roadside and field boundaries, will screen any potential oblique views from ground level locations in the same manner as screening is provided under baseline conditions. There is limited potential for heavily filtered, oblique views in winter months from some first floor south and east-facing windows in properties in which the MSCP Phase 3 and the western terminal extension may be visible, in the context of other existing and permitted development of a similar height, scale and appearance including MSCP Phase 1. The potential for views of tail fins of aircraft at Stands 38-39 will not be realised because there is a particularly large number of intervening mature trees, including those around the Golf Club's clubhouse and carpark, in the required line of sight.</p> <p>In summary, the Proposed Development will not be visible to residential visual receptors in this community from any ground level locations within and around properties. There is the slight possibility that a small proportion of residential visual receptors will have partial, seasonal and/or heavily filtered views of the proposed MSCP Phase 3 and/or the western terminal extension. The limited amount of reinforcement boundary planting proposed for the north-west boundary of the Bristol Airport site in the integrated/embedded mitigation masterplan would not further reduce the magnitude of visual change during the Operation Phase. Any such views of these proposed components would result in a negligible magnitude of change and a minor level of effect that will be not significant in Operation Phase Years 1 and 15.</p>			
Magnitude of change Negligible	Type of effect: Permanent Adverse	Level of effect: Minor	Significance: Not Significant

Table 9G.5 Assessment of visual effects: visual receptors in Potters Hill

Visual receptors in Potters Hill			
<p>Visual receptor sensitivity: High due to residential visual receptors being assessed as possessing high susceptibility in accordance with GLVIA3¹ and the high likelihood that these receptors attach medium or high value to the views that are available from the windows and curtilage of their properties.</p>			
<p>Relevant Figures: The location of this group of visual receptors is shown on Figure 9.34.</p>			
<p>Minimum and maximum separation distance to boundary of Bristol Airport: Receptor group is located at separation distances of 500m to 800m north-east of the north-east corner of the surface car parking in the northern area of Bristol Airport. The proposed road works on the A38 would extend north for approximately 300m.</p>			
<p>Assessment of effects – Operation Phase Years 1 & 15</p>			
<p>Commentary</p> <p>The high level of screening present in south-western views where these are available within this community will have the consequence that few of the components of the Proposed Development will be visible to residential visual receptors. There will be no views of the terminal building extension or canopy, MSCP Phase 3, the gyratory road with internal surface carparking or the new service yard. There is some potential for the eastern end of the eastern walkway and the east pier to be visible, where more open views are available within the Potters Hill community, although the existing built development in its footprint is/will not be visible under the current and future baseline conditions. If partly visible eastern end of the eastern walkway and the east pier would be a minor component in the view. The proposed eastern taxiway may be visible, but a small extension to the existing area of hard surfacing will be unlikely to be identifiable over a separation distance of nearly 1km, given the parity in elevations between the taxiway extension and the southern edge of Potters Hill. Its subsequent use by aircraft would be a minor variation in the baseline movement of aircraft in the eastern part of the central area within the Bristol Airport site. The closest potential change will be the road works on the A38. This section of the A38 is rarely, if ever, visible to residential visual receptors, even on the southern edge of Potters Hill. This is due to a combination of the A38's alignment and the high level of tree cover alongside the section of A38 to the immediate north of the proposed road works. The limited landscape and visual planting incorporated in the integrated/embedded mitigation masterplan will result in no changes to the magnitude of visual change throughout the Operation Phase.</p> <p>In summary, the Proposed Development will result in an incremental change to the minor role played by components in the eastern part of Bristol Airport in the rarely available southern views. These views are only available to a small proportion of residential visual receptors in Potters Hill. Most residential visual receptors will sustain no changes to their present and future baseline views from any component of the Proposed Development. There are unlikely to be any change to the views available at Yewtree Farm. The magnitude of change will be negligible with a minor level of effect that will be not significant in Operation Phase Years 1 and 15.</p>			
Magnitude of change Negligible	Type of effect: Permanent Adverse	Level of effect: Minor	Significance: Not Significant

Table 9G.6 Assessment of visual effects: visual receptors in Felton and Long Cross

Visual receptors in Felton and Long Cross			
<p>Visual receptor sensitivity: High due to residential visual receptors being assessed as possessing high susceptibility in accordance with GLVIA3¹ and the high likelihood that these receptors attach medium or high value to the views that are available from the windows and curtilage of their properties.</p>			
<p>Relevant Figures: The location of this group of visual receptors is shown on Figure 9.34. The baseline view from the closest part of Felton as illustrated by Viewpoint 4 is shown in Figure 9.10.</p>			
<p>Minimum and maximum separation distance to boundary of Bristol Airport: The receptor group is located at separation distances from the main entrance of Bristol Airport of between 800m and 1500m.</p>			
<p>Assessment of effects – Operation Phase Years 1 & 15</p>			
<p>Commentary</p> <p>Zone of Theoretical Visibility's (ZTVs) in Figures 9.2 - 9.4 show that theoretically some existing and the already completed or started permitted 10 mppa components at Bristol Airport are and will be visible to residential visual receptors in all parts of Felton and Long Cross, except along the settlements' less elevated southern edge. The baseline review demonstrates that when the screening of intervening vegetation cover is included, no views of the tallest existing components, including the 28.9m high ATC tower, are visible to residential visual receptors at ground level. The closest components of the Proposed Development will be the eastern walkway and east pier, which will have heights of 10.2m. This is comparable to the height of some of the built development within its footprint e.g. the current administration building, which is not visible. It is concluded that neither the eastern walkway and east pier, nor any other component of the Proposed Development, will be visible to residential visual receptors in Felton and Long Cross.</p> <p>In summary, the intervening topography and vegetation cover screen potential views of the present taller components in the northern and southern areas of Bristol Airport. As the principal components of the Proposed Development will be sited alongside these existing components, they will likewise not be visible to residential visual receptors in Felton and Long Cross where outward western or south-western views are available. For Operation Phase Years 1 and 15 the magnitude of visual change will be no change.</p>			
<p>Magnitude of change No Change</p>	<p>Type of effect: Permanent Neutral</p>	<p>Level of effect: None</p>	<p>Significance: Not Significant</p>

Table 9G.7 Assessment of visual effects: visual receptors in Felton Hill

Visual receptors in Felton Hill			
<p>Visual receptor sensitivity: High due to residential visual receptors being assessed as possessing high susceptibility in accordance with GLVIA3¹ and the high likelihood that these receptors attach medium or high value to the views that are available from the windows and curtilage of their properties.</p>			
<p>Relevant Figures: The location of this group of visual receptors is shown on Figure 9.34. The baseline view from Felton Common, as represented by Viewpoint 5 which is shown in Figure 9.11, is relevant as it shows the visual and topographical relationship between properties at Felton Hill and Bristol Airport.</p>			
<p>Minimum and maximum separation distance to boundary of Bristol Airport: The receptor group is located at separation distances from the eastern edge of Bristol Airport (A38) of between 400m and 850m.</p>			
Assessment of effects – Operation Phase Years 1 & 15			
Commentary			
<p>ZTVs in Figures 9.3 - 9.4 show the components of the Proposed Development will not be theoretically visible for a large majority of residential visual receptors at properties in Felton Hill due to the topographical baseline. Intervening tree cover will provide additional screening minimising the potential for any views from first floor, west-facing windows with otherwise open views towards the northern area of Bristol Airport. Oblique views will be theoretically available to residential visual receptors in the small number of more elevated properties in the south-western edge of Felton Hill. Site visits and Google Earth Pro show that western views from these properties are strongly screened by mature tree and shrub cover in the curtilages of the western-most properties and extensive buildings associated with the business sited on the south-western edge of Felton Hill. Some of the intervening hedgerows and tree cover east of the northern A38 traffic island will be reinforced under the planting and management activities proposed in items 5 & 7 in the integrated/embedded mitigation masterplan. Consequently, no residential visual receptors in Felton Hill will have any views of the operation of the closest components of the Proposed Development, including the eastern walkway and east pier and changes to the layout of the east taxiway.</p> <p>In summary, the detailed topography between the eastern part of Bristol Airport and Felton Hill, supported by existing screening from vegetation cover and built development, will ensure that the Proposed Development will not be visible from any location within this Felton Hill. For Operation Phase Years 1 and 15 the magnitude of visual change will be no change.</p>			
Magnitude of change No Change	Type of effect: Permanent Neutral	Level of effect: None	Significance: Not Significant

Table 9G.8 Assessment of visual effects: visual receptors in Redhill

Visual receptors in Redhill			
<p>Visual receptor sensitivity: High due to residential visual receptors being assessed as possessing high susceptibility in accordance with GLVIA3¹ and the high likelihood that these receptors attach medium or high value to the views that are available from the windows and curtilage of their properties.</p>			
<p>Relevant Figures: The location of this group of visual receptors is shown on Figure 9.34.</p>			
<p>Minimum and maximum separation distance to boundary of Bristol Airport: The receptor group is located at separation distances from the southern edge of Bristol Airport of between 1250m and 1500m.</p>			
<p>Assessment of effects – Operation Phase Years 1 & 15</p>			
<p>Commentary</p> <p>ZTVs in Figures 9.3 - 9.4 show the components of the Proposed Development will not be theoretically visible for any residential visual receptors within or in proximity to Redhill even before the screening role of the high level of intervening tree cover is accounted for in the assessment. The proposed Silver Zone car park extension (Phase 2) will reduce the minimum separation distance to 1,150m but there will be no views of the car park's day time or night-time operation.</p> <p>In summary, the intervening slope topography between the southern part of Bristol Airport and Redhill will ensure that the Proposed Development will not be visible from any location within Redhill. For Operation Phase Years 1 and 15 the magnitude of visual change will be no change.</p>			
<p>Magnitude of change No Change</p>	<p>Type of effect: Permanent Neutral</p>	<p>Level of effect: None</p>	<p>Significance: Not Significant</p>

Table 9G.9 Assessment of visual effects: visual receptors in Blagdon

Visual receptors in Blagdon			
<p>Visual receptor sensitivity: High due to residential visual receptors being assessed as possessing high susceptibility in accordance with GLVIA3¹ and the high likelihood that these receptors attach high value to the views that are available from the windows and curtilage of their properties due to their location in the Mendip Hills AONB.</p>			
<p>Relevant Figures: The location of this group of visual receptors is shown in the inset on Figure 9.34. The baseline view from the most elevated part of Blagdon as illustrated by Viewpoint 15 is shown in Figure 9.19.</p>			
<p>Minimum and maximum separation distance to boundary of Bristol Airport: The receptor group is located at separation distances of 5.1km to 6.0km to the south of Bristol Airport.</p>			
<p>Assessment of effects – Operation Phase Years 1 & 15</p>			
<p>Commentary</p> <p>Figures 9.3 and 9.4 show the ZTV for the Proposed Development extending over the whole of Blagdon other than a small proportion of properties on the less elevated northern edge. The baseline photograph (Figure 9.19) allied with site visits show that potential views towards Bristol Airport and the Proposed Development are severely restricted for residential visual receptors in Blagdon, due to the settlement's dense morphology and nearby tree cover. Where views are available, mainly from properties adjacent to the open areas between the parts of Blagdon, it is assessed that it will be very difficult for residential receptors to identify any of the individual components of the Proposed Development, even the larger scale or taller components such as the eastern walkway and pier and the extensions to the terminal building. These components will be very difficult to differentiate against the immediate backdrop of other development at Bristol Airport in the same horizontal angle of view, with all built components possessing the same scale, height and surface treatment in views over separation distances of 5-6km. For the same reasons, the limited planting proposed in and around Gruffy's Field to the immediate south of the Silver Zone car park in items 10-13 of the integrated/embedded mitigation masterplan and around the perimeter of the silver zone carpark extension (Phase 2) (items 14 & 15) will not be individually visible even when fully established by Operation Phase Year 15. No proposed components will extend above the wooded horizon and the horizontal angle of view occupied by Bristol Airport will not be extended. It is highly unlikely that the operation of Bristol Airport after the Proposed Development will result in identifiable change to the baseline views available to any residential visual receptors in Blagdon.</p> <p>In summary, some of the components of the Proposed Development will be visible in the established visual context of Bristol Airport. Nevertheless, a minimum separation distance of 5km, the slightly lower elevation of Blagdon and the design of the components to minimise any potential visual contrast with existing built components at Bristol Airport will combine such that the Proposed Development will not alter the minimal baseline day time visual role played by Bristol Airport. The magnitude of change for these high sensitivity visual receptors will be negligible with a minor level of effect that will be not significant at Operation Phase Years 1 and 15.</p>			
<p>Magnitude of change Negligible</p>	<p>Type of effect: Permanent Neutral</p>	<p>Level of effect: Minor</p>	<p>Significance: Not Significant</p>

Table 9G.10 Assessment of visual effects: visual receptors at Cook's Farm

Visual receptors at Cook's Farm			
<p>Visual receptor sensitivity: High due to residential visual receptors being assessed as possessing high susceptibility in accordance with GLVIA3¹ and the high likelihood that these receptors attach medium or high value to the views that are available from the windows and curtilage of their properties.</p>			
<p>Relevant Figures: The location of this group of visual receptors is shown on Figure 9.34. The baseline photograph from Viewpoint 1 in Figure 9.7 shows the relative visual role of Bristol Airport's northern area in views from Cook's Farm, which can be seen in the middle ground of the photograph.</p>			
<p>Minimum separation distance to boundary of Bristol Airport: Cook's Farm is located at a minimum separation distance of 200m west of the western boundary of the northern area of Bristol Airport.</p>			
Assessment of effects – Operation Phase Years 1 & 15			
Commentary			
<p>The presence of the MSCP Phase 3 including: the 15m high turbines on its roofs the western terminal extension and the terminal canopy, will be an expansion and intensification of some of the existing built components that are individually prominent in the 90° field of view available to residential visual receptors; in which Bristol Airport is the dominant visual element in the baseline (and future baseline upon completion of MSCP Phase 1b). These proposed components will possess the same heights, scale, mass and architectural design as the current and future baselines' built components. The proposed new service yard will be screened by existing built components. They will not extend the field of view in which built components at Bristol Airport are visible, nor will the proposed built components be taller: the ATC tower will continue to be the tallest and most prominent individual built component and MSCP Phases 1 and MSCP Phase 3 will both be 16m AGL. The operation of Stands 38-39 may extend the length of the elevated southern horizon above which aircraft tail fins are periodically visible, but this will be a minor visual change. The mitigation measure to reinforce the northern area's western boundary hedgerow alongside North Side Road as per item 1 in the integrated/embedded mitigation masterplan will result in some reduction in the availability of filtered views of ground level facilities and movement, particularly at Operation Phase Year 15.</p>			
<p>In summary, the cumulative changes in the western side of the northern area of Bristol Airport will increase the current and future baseline visual role of the largest built components in the southern and eastern views available to residential visual receptors at Cook's Farm. They will not represent a major change in the composition of the view, nor will they extend the angle of view occupied by built development at Bristol Airport, especially following the completion of MSCP Phase 1. Residential visual receptors' northern and western views will remain unaffected.</p>			
<p>It is assessed that the magnitude of change will be low for a high sensitivity visual receptor and the level of effect will be moderate. Under the significance criteria set out in Table 9.9 in Chapter 9, a moderate level of effect is possibly significant. Application of professional judgement for the residential visual receptors at Cook's Farm concludes that visual effects will be not significant. This judgement is due to the retention of the baseline unaffected views and the baseline dominance of Bristol Airport in other views, with the consequence that its presence and operation already visually significant for high sensitivity residential visual receptors at Cook's Farm at Operation Phase Years 1 and 15.</p>			
Magnitude of change Low	Type of effect: Permanent Adverse	Level of effect: Moderate	Significance: Not Significant

Table 9G.11 Assessment of visual effects: visual receptors at Edson's Farm

Visual receptors at Edson's Farm			
<p>Visual receptor sensitivity: High due to residential visual receptors being assessed as possessing high susceptibility in accordance with GLVIA3¹ and the high likelihood that these receptors attach medium or high value to the views that are available from the windows and curtilage of their properties.</p>			
<p>Relevant Figures: The location of Edson's Farm is shown on Figure 9.34. The baseline photograph from Viewpoint 13 is of relevance as it is located close by and is shown in Figure 9.18.</p>			
<p>Separation distance to boundary of Bristol Airport: Edson's Farm is sited 770m to the north-west of the closest section of boundary of the northern site.</p>			
Assessment of effects – Operation Phase Years 1 & 15			
Commentary			
<p>The component of the Proposed Development that will be sited closest to this residential visual receptor will be the MSCP Phase 3. Reviews of the ZTV (Figure 9.4) confirms that Edson's Farm will be outside the ZTV for the Proposed Development. The baseline conditions relating to screening provided by nearby agricultural buildings, nearby and intervening tree cover and intervening rising topography will ensure that under current and future baselines no views of Bristol Airport will continue to be available to these residential visual receptors. This will result in no views being available of any of the components of the Proposed Development including the 16m high MSCP Phase 3.</p>			
<p>The Proposed Development will not be visible in any views available to residential visual receptors at or close to Edson's Farm due to intervening topography reinforced by nearby and intervening screening. The magnitude of change will be no change at operation Phase Years 1 and 15.</p>			
Magnitude of change No change	Type of effect: Permanent Neutral	Level of effect: None	Significance: Not Significant

Table 9G.12 Assessment of visual effects: visual receptors at Oatfield Farm

Visual receptors at Oatfield Farm			
<p>Visual receptor sensitivity: High due to residential visual receptors being assessed as possessing high susceptibility in accordance with GLVIA3¹ and the high likelihood that these receptors attach medium or high value to the views that are available from the windows and curtilage of their properties.</p>			
<p>Relevant Figures: The location of Oatfield Farm is shown on Figure 9.34. The baseline photographs from Viewpoints 13 and 14 are of relevance as they are located close by and are shown in Figure 9.18.</p>			
<p>Separation distance to boundary of Bristol Airport: Oatfield Farm is sited 570m to the north of the closest section of boundary of the northern site.</p>			
Assessment of effects – Operation Phase Years 1 & 15			
Commentary			
<p>The component of the Proposed Development that will be sited closest to this residential visual receptor will be of the MSCP Phase 3. Reviews of the ZTV (Figure 9.4) confirms that Oatfield Farm is on the edge of the ZTV for the Proposed Development. There is potential for the upper sections on the proposed terminal extension and the proposed eastern walkway and east pier to be visible low above a section of the southern horizon, as these components will be sited on the most elevated part of Bristol Airport. As the the MSCP Phase 3 will be sited on a less elevated part of Bristol Airport it will not extend above the intervening horizon. The ZTV does not take account of screening provided by vegetation cover, such as the intervening hedgerows and more pertinently intervening tree cover. This screening and filtering of the residential visual receptors' southern views reduces the visual role of the taller components at Bristol Airport and will continue to fulfil this role for the relevant components of the Proposed Development. The ATC tower will continue to be the component at Bristol Airport that is most readily visible in southern views. Consequently, any changes to the composition of the residential visual receptors' southern view will be incremental and will not alter its balance. The sense of separation from Bristol Airport provided by the intervening rolling topography and the absence of any views of lower and ground level components, activities or movement will be unaffected. The retention of comprehensive screening of the lower and ground level components of the Proposed Development means that the proposed landscape and visual mitigation measures incorporated in the integrated/embedded mitigation masterplan will not be visible to this receptor.</p> <p>In summary, the upper parts of some components of the Proposed Development may be visible above a section of the southern horizon in the context of the limited role of some of the existing taller components at Bristol Airport. Visual changes will be incremental and at least partly screened and/or filtered by intervening vegetation cover. The magnitude of change for this high sensitivity visual receptor will be negligible and the level of effect will be minor. It will be not significant at Operation Phase Years 1 and 15.</p>			
Magnitude of change Negligible	Type of effect: Permanent Adverse	Level of effect: Minor	Significance Not Significant

Table 9G.13 Assessment of visual effects: visual receptors at Downside House Farm

Visual receptors at Downside House Farm			
<p>Visual receptor sensitivity: High due to residential visual receptors being assessed as possessing high susceptibility in accordance with GLVIA3¹ and the high likelihood that these receptors attach medium or high value to the views that are available from the windows and curtilage of their properties.</p>			
<p>Relevant Figures: The location of Downside House Farm is shown on Figure 9.34.</p>			
<p>Separation distance to boundary of Bristol Airport: Downside House Farm is sited 900m to the north-west of the western end of Runway 09 and 1150m north-west of the closest section of western boundary of the northern site.</p>			
<p>Assessment of effects – Operation Phase Years 1 & 15</p>			
<p>Commentary</p> <p>Due to their heights and/or the ground level elevations of their footprints, the components of the Proposed Development with the most potential to be visible in residential visual receptors' south-eastern views will be: MSCP Phase 3, the terminal extension and canopy and the use of Stands 38-39. Other components will be screened by existing development in the northern area and by the rising topography, due to a minimum variation of 30m between Downside House Farm and the least elevated part of the northern area where development is proposed. The ZTV for the Proposed Development (Figure 9.3) shows that Downside House Farm is on the edge of this ZTV with the implication that only a small proportion of the components of the Proposed Development could be visible even without screening from intervening tree cover.</p> <p>It is assessed that when the screening role provided by the intervening tree cover is taken into consideration, none of the proposed components will be visible in the south-eastern views available to residential visual receptors at Downside House Farm. Views in the direction of aircraft at Stands 38-39 benefit from an especially high density of tree cover around the clubhouse at Tall Pines Golf Club, some of which is coniferous. It is likely that the ATC tower will continue to be the only component at Bristol Airport that may be visible to these residential visual receptors.</p> <p>In summary, even the tallest component (MSCP Phase 3) and the most elevated component (the terminal building extension) of the Proposed Development will be highly likely to be screened by a combination of differences in elevation, screening by existing development in the northern side and intervening tree cover. For this high sensitivity visual receptor the magnitude of change will be negligible and the level of effect will be minor. It will therefore be not significant at Operation Phase Years 1 and 15.</p>			
Magnitude of change Negligible	Type of effect: Permanent Adverse	Level of effect: Minor	Significance Not Significant

Table 9G.14 Assessment of visual effects: visual receptors at properties on Long Lane

Visual receptors at properties on Long Lane			
<p>Visual receptor sensitivity: High due to residential visual receptors being assessed as possessing high susceptibility in accordance with GLVIA3¹ and the high likelihood that these receptors attach medium or high value to the views that are available from the windows and curtilage of their properties.</p>			
<p>Relevant Figures: The location of properties on Long Lane is shown on Figure 9.34. The baseline photograph from Viewpoint 5 in Figure 9.11 is relevant as it is located approximately 150m north-east of the most northerly of these properties (Windmill House). Viewpoint 5's location is in Felton Common and the view shown is therefore more open than baseline views available from these properties.</p>			
<p>Separation distance to boundary of Bristol Airport: The closest of the properties on Long Lane (Windmill Farm) is sited 200m to the east of the eastern boundary of Bristol Airport as formed by the A38.</p>			
Assessment of effects – Operation Phase Years 1 & 15			
Commentary			
<p>Residential visual receptors at the two southerly properties will have no views of the Proposed Development in summer months due to the substantial and visually effective screening provided by nearby garden, hedgerow and tree cover in their north-western and western views. In winter months it is possible that heavily filtered views of the closest components of the Proposed Development, such as the new east taxiway and the eastern walkway and east pier, will be available, but they will not be individually identifiable in the context of the other existing and permitted components at Bristol Airport in the same heavily filtered views.</p>			
<p>Residential visual receptors at the two northerly properties (Hill House and Windmill House) will have views of the proposed eastern walkway and east pier, the operation of the proposed new east taxiway and the proposed southern and western extensions to the terminal building. The former will screen any potential views of the gyratory road and internal surface car parking and the latter will screen any views of the MSCP Phase 3. At times there will be a slightly increased number of aircraft visible at stands on the east and west aprons. Cumulatively these components will represent a small-scale incremental change in north-western views in which Bristol Airport is already visually dominant. The visible proposed components will not extend the horizontal angle of views occupied by built development on the northern area. The extended terminal building, eastern walkway and east pier will have a scale, height and architectural design that reflects the existing built development within Bristol Airport's northern area.</p>			
<p>In summary, a proportion of the components of the Proposed Development have the potential to be visible to these two pairs of residential receptors. Variations in the locations and level of screening available to the residential visual receptors at southerly and northerly properties will result in differences in the visible changes within views. Residential visual receptors at the southerly properties have substantial nearby vegetation screening and will be highly unlikely to sustain any changes in their baseline views, especially in summer months. Some of the measures (items 5, 6, 7, 8 & 9) in the integrated/embedded mitigation masterplan could help to incrementally increase intervening screening of ground level components of the Proposed Development. High sensitivity residents at these two properties will sustain a negligible magnitude of change and a minor level of effect that will be not significant at Operation Phase Years 1 and 15. Residential visual receptors in the two northerly properties (Hill House and Windmill House) have open views towards Bristol Airport, especially from some first-floor windows. Some proposed components will be visible in these views, but they will always be seen in the existing and future baseline context of extensive development and activities at Bristol Airport. They will not alter the balance and overall composition of north-western and western current and future baseline views. High sensitivity residents at these two properties will sustain low magnitudes of visual change and the level of effect will be moderate. This is possibly significant in accordance with Table 9.9 of Chapter 9. Application of professional judgement concludes that, due to the current and future baseline context provided by Bristol Airport, with the existing and ongoing future prominence of development and operational activities, the visual changes that will be sustained must be assessed as not significant for the residential visual receptors at Hill House and Windmill House for Operation Phase Year 1 and 15.</p>			
Magnitude of change Low	Type of effect: Permanent Adverse	Level of effect: Moderate	Significance Not Significant

Table 9G.15 Assessment of visual effects: visual receptors at properties south of Hunters Hall

Visual receptors at properties south of Hunters Hall			
<p>Visual receptor sensitivity: High due to residential visual receptors being assessed as possessing high susceptibility in accordance with GLVIA3¹ and the high likelihood that these receptors attach medium or high value to the views that are available from the windows and curtilage of their properties.</p>			
<p>Relevant Figures: The location of properties south of Hunters Hall is shown on Figure 9.34.</p>			
<p>Separation distance to boundary of Bristol Airport: The closest of these properties (Hunters Hall) is sited 500m to the south-east of the south-eastern corner of the boundary of Bristol Airport.</p>			
<p>Assessment of effects – Operation Phase Years 1 & 15</p>			
<p>Commentary</p> <p>The ZTVs in Figures 9.3 and 9.4 show that the area within which these properties are sited is outside the ZTV for the Proposed Development. This exclusion is due to the area being at a lower elevation than Bristol Airport and the location of most of the proposed components in the northern area being sited on the more distant side of the Broadfield Down Plateau. The presence of a considerable amount of mature tree cover close to all these properties minimises the potential for residential visual receptors, at any of the properties, having views from any north-west facing, first floor windows.</p> <p>In summary, the plateau and slope topography results in the area occupied by these properties being excluded from the ZTV for the Proposed Development. Any potential residual views from first floor windows will be screened or heavily filtered by nearby tree cover. At Operation Phase Years 1 and 15 the magnitude of change will be no change.</p>			
<p>Magnitude of change No change</p>	<p>Type of effect: Permanent Neutral</p>	<p>Level of effect: None</p>	<p>Significance Not Significant</p>

Table 9G.16 Assessment of visual effects: visual receptors at properties around Butcombe Court

Visual receptors at properties around Butcombe Court			
<p>Visual receptor sensitivity: High due to residential visual receptors being assessed as possessing high susceptibility in accordance with GLVIA3¹ and the high likelihood that these receptors attach medium or high value to the views that are available from the windows and curtilage of their properties.</p>			
<p>Relevant Figures: The location of properties around Butcombe Court is shown on Figure 9.34.</p>			
<p>Separation distance to boundary of Bristol Airport: The closest of these properties (Butcombe Court) is sited 1050m to the south-east of the south-eastern corner of Bristol Airport.</p>			
<p>Assessment of effects – Operation Phase Years 1 & 15</p>			
<p>Commentary</p> <p>The ZTVs in Figures 9.3 and 9.4 show that the area within which these properties are sited is within the ZTV for the Proposed Development. Nevertheless, the screening of the existing components at Bristol Airport that is provided by the coalescence of nearby and intervening tree cover will be effective for the built components of the Proposed Development, as these will not be as tall as some of the existing built components. Negligible, temporary changes in views available to some residential visual receptors, such as the occasional partial and filtered views of an aircraft tail fin in winter months when the trees are not in leaf, cannot be absolutely discounted. Hence, the assessment does not conclude that there will be no change.</p> <p>In summary, separation distances of over 1km, combined with intervening topography and considerable amounts of nearby and intervening tree cover, will be likely to screen views of the Proposed Development, as they combine to screen Bristol Airport in baseline views. As the residential visual receptors are at properties that are within the ZTV for the Proposed Development, it is not possible to confidently assess that there will be no changes to baseline views. At Operation Phase Years 1 and 15 for the high sensitivity visual receptors around Butcombe Court it is assessed that the magnitude of change will be negligible and the level of effect will be minor and not significant.</p>			
<p>Magnitude of change Negligible</p>	<p>Type of effect: Permanent Adverse</p>	<p>Level of effect: Minor</p>	<p>Significance Not Significant</p>

Table 9G.17 Assessment of visual effects: visual receptors at properties around Hailstones Farm and the A38

Visual receptors at properties around Hailstones Farm and the A38

Visual receptor sensitivity: High due to residential visual receptors being assessed as possessing high susceptibility in accordance with GLVIA3¹ and the high likelihood that these receptors attach medium or high value to the views that are available from the windows and curtilage of their properties.

Relevant Figures: The location of properties around Hailstones Farm and the A38 is shown on **Figure 9.34**.

Separation distance to boundary of Bristol Airport: The closest of these properties (the two semi-detached properties east of High Wood) is sited 400m to the south of the southern boundary of Bristol Airport.

Assessment of effects – Operation years 1 & 15

Commentary

The ZTVs in **Figures 9.3** and **9.4** show that a majority of the area within which these properties are sited is within the ZTV for the Proposed Development. The exception is the area containing the two semi-detached properties east of High Wood, which is the head of a west-facing combe and therefore in a slight topographic hollow. For the residential visual receptors at the remaining properties in this group the screening of the existing components at Bristol Airport that is provided by the coalescence of intervening tree cover will be effective for the built components of the Proposed Development. Additional screening will gradually be provided by items 10-13 of the integrated/embedded mitigation masterplan that will be provided in Gruffy's Field to the immediate south of the southern vegetated perimeter bund. The combination of rising and then plateau topography to the north, allied with vegetation cover, will screen the proposed components in the northern area of Bristol Airport. Any potential views of the proposed Silver Zone car park extension (Phase 2) to the north-west will likewise be screened by extensive intervening tree cover (as well as the screen bunding and planting around its perimeter).

In summary, it is highly likely that a combination of topography, extensive intervening tree cover and perimeter bunding around the southern boundary of Bristol Airport will screen all views of the Proposed Development, as it does for the existing and permitted development in the southern and northern areas. As most of the properties are sited within the ZTV for the Proposed Development, it is not possible to confidently assess that there will be no changes to baseline views. It is therefore assessed for these high sensitivity visual receptors the magnitude of change will be negligible and the level of effect will be minor. Visual effects will be not significant at Operation Phase Years 1 and 15.

Magnitude of change Negligible	Type of effect: Permanent Adverse	Level of effect: Minor	Significance Not Significant
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Table 9G.18 Assessment of visual effects: visual receptors at properties around Winters Lane

Visual receptors at properties around Winters Lane			
<p>Visual receptor sensitivity: High due to residential visual receptors being assessed as possessing high susceptibility in accordance with GLVIA3¹ and the high likelihood that these receptors attach medium or high value to the views that are available from the windows and curtilage of their properties.</p>			
<p>Relevant Figures: The location of properties around Winters Lane is shown on Figure 9.34. The baseline photographs from Viewpoints 8 and 9 in Figures 9.14 and 9.15 are relevant as they are located on sections of Winters Lane close to the north and south of these properties.</p>			
<p>Maximum and minimum separation distance to boundary of Bristol Airport: The closest of these properties (Highfield) is sited 70m to the west of the western boundary of Silver Zone car park (Phase 1), whilst Broadfield Farm is located 450m from the closest boundary of Silver Zone car park (Phase 1).</p>			
Assessment of effects – Operation Phase Years 1 & 15			
Commentary			
<p>Residential visual receptors at Broadfield Farm will sustain no visual effects from the Proposed Development, as the Farm is outside the ZTV for the Proposed Development. Review of the visual baseline and site visits strongly indicate that residential receptors at Goblin Combe Farm, Springfields and Highfield will have no views of any of the components of the Proposed Development associated with the runway and taxiway and in the northern area of Bristol Airport, due to the plateau topography supported by nearby vegetation cover and/or built development.</p>			
<p>Any changes in baseline views for residential visual receptors at these three properties will be due to the presence and operation of the proposed Silver Zone car park (Phase 2) within a minimum separation distance of 250-350m to the east. It is assessed that at Operation Phase Years 1 and 15 there will be minimal potential for views to be available to residential visual receptors at Springfields or Goblin Combe Farm, due to the screening provided by tree cover and buildings within their curtilages, as well as due to the presence of a considerable number of parked cars within the curtilage of Goblin Combe Farm. If outward partial and framed views are available to the north-east additional partial screening will be provided by the planted perimeter bund that is proposed in the integrated/embedded mitigation masterplan. There may be some residual views of cars parked in the more elevated (but distant) northern part of the Silver Zone car park extension (Phase 1). Any changes to the composition of existing views would be small-scale. Residential visual receptors at Highfield possess no screening from adjacent built development, but south-eastern views are partly filtered by a small number of adjacent mature tree. These receptors would also benefit from the screening gradually provided as the recent planting on the intervening perimeter bunding around the Silver Zone car park extension (Phase 1) becomes almost fully established by Operation Phase Year 1 (2026). In the context of the baseline visual role that is fulfilled by the existing carpark, the Proposed Development will result in an incremental visual change as opposed to introducing visual elements within precedent into the residential visual receptors' views.</p>			
<p>In summary, residential visual receptors at three properties have some potential to sustain small scale changes in a portion of their existing views from the proposed Silver Zone car park extension (Phase 2) with a grasscrete surface and 2m high perimeter bunding. Available views will be partly screened and framed and will be within the context of existing car parking being a readily visible component of the views. At Operation Phase Years 1 and 15 it is assessed that these high sensitivity visual receptors will sustain a magnitude of change that will be negligible and that the level of effect will be minor which will be not significant. By Operation Phase Year 15 the full establishment of the proposed mitigation planting on the perimeter bund will serve to reinforce the negligible magnitude of change.</p>			
Magnitude of change Negligible	Type of effect: Permanent Adverse	Level of effect: Minor	Significance Not Significant

Table 9G.19 Assessment of visual effects: visual receptors at properties alongside Cook's Bridle Path

Visual receptors at properties alongside Cook's Bridle Path

Visual receptor sensitivity: High due to residential visual receptors being assessed as possessing high susceptibility in accordance with GLVIA3¹ and the high likelihood that these receptors attach medium or high value to the views that are available from the windows and curtilage of their properties.

Relevant Figures: The location of properties alongside Cook's Bridle Path is shown on **Figure 9.34**. Viewpoint 12 is representative of views available from Cook's Bridle Path with an annotated photograph shown in **Figure 9.17**. Viewpoint 1 in **Figure 9.7** is representative of views from close to the northern end of Cook's Bridle Path. The photomontage from Viewpoint 1 in **Figure 9.26** is a worst-case scenario as it does not take account of the increased tree cover that provides some screening for the residential receptors in properties at the northern end of Cook's Bridle Path.

Minimum separation distance to boundary of Bristol Airport: The closest of these properties at the southern end of Cook's Bridle Path is 90m from the acoustic wall besides the west apron, whilst the closest of these properties at the northern end is 500m from the western boundary of the northern area of Bristol Airport.

Assessment of effects – Operation Phase Years 1 & 15**Commentary**

There will be variations in the number and prominence of components of the Proposed Development that will be present in the views available to this group of residential visual receptors. The photomontage from Viewpoint 1 in **Figure 9.26** shows how MSCP Phase 3 including: some of the turbines on its upper storey, some of the western terminal extension and the terminal canopy, could be new visual elements in the views of the three residential visual receptors at the northern end of Cook's Bridle Path. All other proposed components will be screened by existing or permitted built development on the northern area of Bristol Airport. When the filtering and partial screening provided by the moderate amounts of scrub and tree cover within the curtilages of these three properties are taken into consideration, as well as the limited screening from the buildings and trees at Cook's Farm (which have a lesser visual role at Viewpoint 1 due to alignments), it is assessed that the magnitude of visual change will not exceed low for Operation Phase Years 1 and 15. The new built development will be seen in the same field of view as existing and permitted built development, will possess a similar scale, mass and architectural treatment and will consequently result in incremental visual change. Potential increases in the numbers of aircraft tail fins above a short section of the southern horizon will be a negligible visual change.

Residential visual receptors in the four properties on the western side of Cook's Bridle Path benefit from high levels of dense, nearby tree cover in their eastern views. The incremental changes to the amount of built development and aircraft tail fins potentially visible, as outlined in the preceding paragraph, will be substantially screened or at least heavily filtered in the views available to these four residential visual receptors. It is assessed that the magnitude of change will be negligible for Operation Phase Years 1 and 15.

Residential visual receptors in the property on the eastern side of the southern end of Cook's Bridle Path may be able to partially see MSCP Phase 3. If visible, it will be seen in the visual context of the preceding permitted MSCP Phase 1 and the existing hotel. The main visual change is likely to be the use by aircraft of Stands 38-39 that are sited within 80m of the southern elevation of the property. The presence of aircraft tail fins, and maybe aircraft fuselages, at close distance, with only partial screening by a boundary hedgerow, will be at most a low magnitude of change compared with the current and future baseline in which there is existing aircraft use of these stands.

In summary, residential visual receptors at the eight properties sited alongside Cook's Bridle Path have varying views of the existing and permitted developments and activities at Bristol Airport. This variation is primarily determined by separation distance and the amount of tree cover in their curtilages and intervening hedgerows. Visual changes generated by the Proposed Development relates to MSCP Phase 3, the terminal building and use of Stands 38-39. The same factors that apply to the current and future baseline views will influence the magnitudes of change that will be sustained by high sensitivity residential visual receptors due to the Proposed Development at Operation Phase Years 1 and 15. The magnitudes of change will vary between negligible and low and the level of effect will vary between minor and moderate. Under the significance criteria set out in **Table 9.9** in **Chapter 9**, a moderate level of effect is possibly significant. Application of professional judgement for the residential visual receptors in the four affected properties on the eastern side of Cook's Bridle Path concludes that visual effects will not be significant. This is due to the design of the MSCP Phase 3 and the terminal extension and canopy possessing the same scale, form and architectural principles as the MSCP Phase 1 that will be completed under the future baseline and existing terminal that are present in the residential visual receptors' baseline views. For the property close to Stands 38-39 the periodic and partial presence of aircraft is a long-established component in the views available to these residential visual receptors.

Visual receptors at properties alongside Cook's Bridle Path

Magnitude of change Low	Type of effect: Permanent Adverse	Level of effect: Moderate	Significance Not Significant
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Table 9G.20 Assessment of visual effects: visual receptors at Downside Farm

Visual receptors at Downside Farm			
<p>Visual receptor sensitivity: High due to residential visual receptors being assessed as possessing high susceptibility in accordance with GLVIA3¹ and the high likelihood that these receptors attach medium or high value to the views that are available from the windows and curtilage of their properties.</p>			
<p>Relevant Figures: The location of this group of visual receptors is shown on Figure 9.34. The baseline views from the PRoW to the north of this group of residential visual receptors as represented by Viewpoint 2 are shown in Figure 9.8.</p>			
<p>Minimum separation distance to boundary of Bristol Airport: Downside Farm is located at a minimum separation distance of 200m north of the northern boundary of Bristol Airport.</p>			
Assessment of effects – Operation Phase Years 1 & 15			
Commentary			
<p>The built components of the Proposed Development that are likely to be partly visible above the tree cover along Bristol Airport's northern boundary will be the proposed eastern walkway and east pier, the western terminal extension, the terminal canopy and MSCP Phase 3, including some of the 15m high turbines on its upper storey. Only the upper sections of these proposed built components will be visible, as their lower sections will be screened or at least heavily filtered by the tree cover. The upper section of MSCP Phase 3 may slightly extend the horizontal angle of the residential receptors' southern view, occupied by the built development at Bristol Airport. The top of MSCP Phase 3 and the turbines will be unlikely to extend above the section of the horizon as it will be sited at a ground level that is approximately 15m below the ground level of the west apron and the base of the western walkway. The western terminal extension will increase the extent of the horizon occupied by the terminal building, but its height will not change in comparison with the baseline. The top of the eastern walkway and east pier will extend slightly above the canopy of the tree cover, but it will provide additional partial screening of the aircraft at stands on the east apron. Under the baseline the current administration building in the former ATC tower extends above the horizon in this section of the southern view providing a precedent for the presence of built components.</p>			
<p>The changes to ground level components in the northern area, including the proposed gyratory road and changes to the arrangement of the internal surface car parking, will be unlikely to be visible do to screening or heavy filtering. If heavily filtered views are seasonally available their operation will represent a minor change in the arrangement of baseline components in this part of the northern area of Bristol Airport.</p>			
<p>In summary, the upper sections of built components of the Proposed Development that will be sited on the most elevated part of the northern area of Bristol Airport will change the detailed composition of a proportion of the southern view that is available to this residential visual receptor. The proposed planting in the integrated/embedded mitigation masterplan that are located on the northern boundary of Bristol Airport will be too localised and too low in comparative elevation to provide more than minor incremental changes even by Operation Phase Year 15. The proposed new and extended built components will reflect the height, scale, mass and appearance of the current and future baseline built components in this view. Effective screening of the lower sections of these built components, the ground level components and operational activities will continue to be provided by the tree cover alongside Downside Road, especially on the northern perimeter bund. At Operation Years 1 and 15 it is assessed that the magnitude of change will be low for these high sensitivity visual receptors and that the level of effect will be moderate. Under the significance criteria set out in Table 9.9 in Chapter 9, a moderate level of effect is possibly significant. Application of professional judgement for the residential visual receptors at Downside Farm concludes that the long-standing baseline visual prominence of built components and aircraft at Bristol Airport in the residential visual receptors' likely principle view has the consequence that a limited intensification of built development that retains the visual characteristics of current and future baseline built development should be assessed as resulting in a visual effect that is not significant.</p>			
Magnitude of change Low	Type of effect: Permanent Adverse	Level of effect: Moderate	Significance Not Significant

Table 9G.21 Assessment of visual effects: visual receptors using Monarch's Way

Visual receptors using Monarch's Way			
<p>Visual receptor sensitivity: High due to recreational visual receptors being assessed as possessing high susceptibility in accordance with GLVIA3¹ and the high likelihood that these receptors attach high value to the views that are available when using this long distance trail.</p>			
<p>Relevant Figures: The location of Monarch's Way within the study area is shown on Figure 9.35. Viewpoint 19 is illustrative of the type of views available from a section of Monarch's Way with a baseline photograph shown in Figure 9.21.</p>			
<p>Minimum separation distance to boundary of Bristol Airport: Monarch's Way is located at a minimum separation distance of 2.8km east of the eastern boundary of Bristol Airport.</p>			
Assessment of effects – Operation Phase Years 1 & 15			
Commentary			
<p>The ZTVs (Figures 9.3 and 9.4) show that the Proposed Development would be potentially visible from slightly reduced lengths of the two sections of Monarch's Way.</p>			
<p>The larger scale or spatially extensive built components such as the eastern walkway and east pier may be identifiable in views from the northern section. Components such as the terminal extensions and the gyratory road with internal surface carparking may also be identifiable, but will not represent a distinguishable change compared to the baseline. The footprint of Bristol Airport and the scale, balance and colour of the development within that footprint will not be altered.</p>			
<p>The individual components of the Proposed Development will not be identifiable in views for the southern section due to the separation distance.</p>			
<p>In summary, the Proposed Development will potentially be visible to recreational visual receptors from two sections totalling approximately 4km of Monarch's Way. The separation distances make Bristol Airport susceptible to screening by nearby vegetation cover. On short sections, where open views are available, the proposed built components will be difficult or impossible to identify against the current and future baseline buildings, car parks, runways and taxiways. For this group of high sensitivity visual receptors it is assessed that the magnitude of change will be negligible or no change and that the level of effect will be none or minor at Operation Phase Years 1 and 15.</p>			
Magnitude of change Negligible	Type of effect: Permanent Neutral	Level of effect: Minor	Significance Not Significant

Table 9G.22 Assessment of visual effects: visual receptors using the Limestone Link

Visual receptors using the Limestone Link			
<p>Visual receptor sensitivity: High due to recreational visual receptors being assessed as possessing high susceptibility in accordance with GLVIA3¹ and the high likelihood that these receptors attach high value to the views that are available when using this long distance trail.</p>			
<p>Relevant Figures: The location of the Limestone Link within the study area is shown on Figure 9.35. Representative and illustrative photographs from Viewpoints 15, 18 and 19 on or close to the Limestone Link are shown in Figures 9.19, 9.20 and 9.21.</p>			
<p>Minimum separation distance to boundary of Bristol Airport: The Limestone Link is located at a minimum separation distance of 6.1km south of the southern boundary of Bristol Airport.</p>			
Assessment of effects – Operation Phase Years 1 & 15			
Commentary			
<p>The ZTVs (Figures 9.3 and 9.4) show that the Proposed Development would be potentially visible from the same 14km length of the Limestone Link as the Bristol Airport is under current and future baseline conditions. Given that recreational visual receptors are rarely able to identify Bristol Airport in the extensive and widely available northern views, even in optimal weather conditions and where there is no screening from nearby plantation tree cover, it will be highly unlikely that they will be able to identify any visual change due to the operation of the Proposed Development. None of the proposed built components will be sufficiently tall to extend above the northern horizon and the horizontal angle of view occupied by Bristol Airport will not be extended.</p> <p>In summary, the separation distances of over 6km and the minimal visual role of the Bristol Airport in the current and future baseline views will result in a negligible magnitude of change for high sensitivity recreational visual receptors using the closest sub-sections of the Limestone Link and no change for those using more distant sub-sections. The level of effect will be minor to none and will not vary between Operation Phase Years 1 and 15.</p>			
Magnitude of change Negligible	Type of effect: Permanent Neutral	Level of effect: Minor	Significance Not Significant

Table 9G.23 Assessment of visual effects: visual receptors using the West Mendip Way

Visual receptors using the West Mendip Way			
Visual receptor sensitivity: High due to recreational visual receptors being assessed as possessing high susceptibility in accordance with GLVIA3 ¹ and the high likelihood that these receptors attach high value to the views that are available when using this long distance trail.			
Relevant Figures: The location of the West Mendip Way within the study area is shown on Figure 9.35 .			
Minimum separation distance to boundary of Bristol Airport: The West Mendip Way is located at a minimum separation distance of 8.2km south-west of the southern boundary of Bristol Airport.			
Assessment of effects – Operation Phase Years 1 & 15			
Commentary			
<p>As the only potential views of Bristol Airport and the Proposed Development are screened by the coniferous woodland in Rowberrow Warren, it is assessed that at Operation Phase Years 1 and 15, for this high sensitivity group of recreational visual receptors the magnitude of change will be no change and the level of effect will be none.</p>			
Magnitude of change No Change	Type of effect: Permanent Neutral	Level of effect: None	Significance Not Significant

Table 9G.24 Assessment of visual effects: visual receptors using the Community Forest Path

Visual receptors using the Community Forest Path			
<p>Visual receptor sensitivity: High due to recreational visual receptors being assessed as possessing high susceptibility in accordance with GLVIA3¹ and the high likelihood that these receptors attach high value to the views that are available when using this long distance trail.</p>			
<p>Relevant Figures: The location of the Community Forest Path within the study area is shown on Figure 9.35.</p>			
<p>Minimum separation distance to boundary of Bristol Airport: The Community Forest Path is located at a minimum separation distance of 4.0km north-east of the northern boundary of Bristol Airport.</p>			
<p>Assessment of effects – Operation Phase Years 1 & 15</p>			
<p>Commentary</p> <p>Potential views of Bristol Airport and the Proposed Development may be available from a couple of hundred metres of a 72km long distance trail. Where and if views are available, under the current and future baseline Bristol Airport is and will continue to be a minor visual element and the built components of the Proposed Development will generate an incremental change. At Operation Phase Years 1 and 15 for this group of high sensitivity recreational visual receptors it is assessed that the magnitude of change will be negligible and the level of effect will be minor, although there is a strong possibility that there will be no visual effects. Either outcome will be not significant.</p>			
<p>Magnitude of change Negligible</p>	<p>Type of effect: Permanent Neutral</p>	<p>Level of effect: Minor</p>	<p>Significance Not Significant</p>

Table 9G.25 Assessment of visual effects: visual receptors using Regional Cycle Route 410

Visual receptors using Regional Cycle Route 410			
<p>Visual receptor sensitivity: High due to recreational visual receptors being assessed as possessing high susceptibility in accordance with GLVIA3¹ and the high likelihood that these receptors attach high value to the views that are available when using this Sustrans Regional Cycle Route.</p>			
<p>Relevant Figures: The location of Regional Route 410 within the study area is shown on Figure 9.35. The baseline view from this section of Regional Route 410 as represented by Viewpoint 1 is shown in Figure 9.7. The photomontage of the Proposed Development from Viewpoint 1 is shown in Figure 9.27.</p>			
<p>Minimum separation distance to boundary of Bristol Airport: Regional Route 410 is routed along the northern boundary of Bristol Airport.</p>			
<p>Assessment of effects – Operation Phase Years 1 & 15</p>			
<p>Commentary</p> <p>The ZTVs (Figures 9.3 and 9.4) show that the Proposed Development would be potentially visible from a slightly reduced length of Regional Route 410. The eastern-most sub-section along West Lane is outside the ZTV for the Proposed Development.</p> <p>Views from the western-most sub-section will continue to be screened by the adjacent plantation woodland. Similarly views from the sub-section west of Cook's Bridle Path will be screened by the tree cover alongside the fairways in the intervening Tall Pines Golf Club and alongside Cook's Bridle Path. Recreational visual receptors cycling the sub-section along the northern boundary of Bristol Airport will continue to have their close distance southern views into the northern area screened by the perimeter bund and its vegetation cover. Along two short lengths of this sub-section additional screening will be provided by the reinforcement and parkland planting proposed in items 1, 2, 3 and 16 in the integrated /embedded mitigation masterplan. The proposed works on the A38, including the re-alignment at the junction of A38 and Downside Road, will be briefly prominent during the construction works, but subsequently i.e. by Operation Phase Year 1, the realignment will not be noticeable in the context of the busy A38 and the transient nature of the view available to these receptors.</p> <p>The only sub-section where recreational visual receptors will briefly have views of some of the proposed built components in the northern area will be the 500m long sub-section east of Cook's Bridle Path. The visual changes are shown in the photomontage from Viewpoint 1 (Figure 9.27). This magnitude of change is assessed as low in Table 9G.19 for the residential visual receptors at properties alongside this section of Downside Road, however the transient nature of these views for cyclists and their availability being restricted to those travelling east must be considered in this assessment.</p> <p>In summary, the Proposed Development will be visible for approximately 500m of a 21km cycle route, plus there will be limited changes at a junction on an 'A' road. Any changes will be transient and only available to cyclists travelling in one direction. They will also only be visible in the visual context of existing and consented built development at Bristol Airport in the same field of view. At Operation Phase Years 1 and 15 in the context of the entirety of RCR 410 and the high sensitivity of recreational visual receptors using the RCR it is assessed that for the magnitude of change will be negligible and the level of effect will be minor and not significant.</p>			
Magnitude of change Negligible	Type of effect: Permanent Neutral	Level of effect: Minor	Significance Not Significant

Table 9G.26 Assessment of visual effects: visual receptors using National Cycle Route 334

Visual receptors using National Cycle Route 334			
<p>Visual receptor sensitivity: High due to recreational visual receptors being assessed as possessing high susceptibility in accordance with GLVIA3¹ and the high likelihood that these receptors attach high value to the views that are available when using this Sustrans National Cycle Route.</p>			
<p>Relevant Figures: The location of NCR 334 within the study area is shown on Figure 9.35.</p>			
<p>Minimum separation distance to boundary of Bristol Airport: The southern end of NCR 334 is located 850m west of the north-east corner of the boundary of Bristol Airport.</p>			
<p>Assessment of effects – Operation Phase Years 1 & 15</p>			
<p>Commentary</p> <p>The ZTVs (Figures 9.3 and 9.4) show that the Proposed Development would be potentially visible from the same 1km length of NCR 334 from which views of the permitted 10 mppa scheme are available. The baseline review shows that no current and future baseline built components at Bristol Airport, including the terminal building and the 28.9m high ATC tower, can be seen in western views, due to screening from intervening vegetation. At Operation Phase Years 1 and 15 it is therefore highly unlikely that any of the proposed built components, which have a maximum height of 16m, will be visible in the short-lived, transient views available to high sensitivity recreational visual receptors cycling in a westerly direction. It is assessed that the magnitude of change will be no change and the level of effect will be none.</p>			
<p>Magnitude of change Negligible</p>	<p>Type of effect: Permanent Neutral</p>	<p>Level of effect: None</p>	<p>Significance Not Significant</p>

Table 9G.27 Assessment of visual effects: visual receptors using National Cycle Route 3

Visual receptors using National Cycle Route 3			
<p>Visual receptor sensitivity: High due to recreational visual receptors being assessed as possessing high susceptibility in accordance with GLVIA3¹ and the high likelihood that these receptors attach high value to the views that are available when using this Sustrans National Cycle Route.</p>			
<p>Relevant Figures: The location of NCR 3 within the study area is shown on Figure 9.35. A representation of the views that are available from the section of National Route 3 within the study area is provided by the baseline photograph from Viewpoint 19 in Figure 9.21.</p>			
<p>Minimum separation distance to boundary of Bristol Airport: The northern end of NCR 3 around Chew Stoke is located 5.1km south-east of the eastern boundary of Bristol Airport.</p>			
Assessment of effects – Operation Phase Years 1 & 15			
Commentary			
<p>The ZTVs (Figures 9.3 and 9.4) show that the Proposed Development would be potentially visible from a slightly reduced length of NCR 3, with the less elevated sub-section at the base of the scarp slope excluded. The baseline review shows that due to the separation distance of more than 8km, no current or future baseline built components at Bristol Airport, including the terminal building and the ATC tower, can be readily identified in the limited number of locations where long-distance northern views are available. It is therefore highly unlikely that any of the proposed built components that will be sited within the context of the existing built components in the northern area at Bristol Airport will be identifiable in the transient views available to high sensitivity recreational visual receptors cycling this approximately 2km long section of NCR 3. It is assessed that the magnitude of change will be no change and the level of effect will be none at Operation Phase Years 1 and 15.</p>			
Magnitude of change No Change	Type of effect: Permanent Neutral	Level of effect: None	Significance Not Significant

Table 9G.28 Assessment of visual effects: visual receptors using Felton Common Open Access Area

Visual receptors using Felton Common Open Access Area			
<p>Visual receptor sensitivity: High due to recreational visual receptors being assessed as possessing high susceptibility in accordance with GLVIA3¹ and the high likelihood that these receptors attach medium or high value to the views that are available when using this open access area.</p>			
<p>Relevant Figures: The location of Felton Common Open Access Area within the study area is shown on Figure 9.35. The baseline view from Felton Common Open Access Area as represented by Viewpoint 5 is shown in Figure 9.11.</p>			
<p>Minimum separation distance to boundary of Bristol Airport: Felton Common Open Access Area adjoins the eastern boundary of Bristol Airport.</p>			
Assessment of effects – Operation Phase Years 1 & 15			
Commentary			
<p>The ZTVs (Figures 9.3 and 9.4) show that the Proposed Development would be potentially visible across all of Felton Common Open Access Area, apart from some of the less elevated north-eastern and northern edges. The closest and most prominent proposed built component will be the eastern walkway and east pier with heights of 10.2m. The east pier will be visible in the location that is presently occupied by the administration building. The eastern walkway and east pier will screen any views into the northern surface car park including the proposed gyratory road. The western terminal extension will slightly increase the visual role of the terminal building, but the ATC tower will remain as the most prominent individual built component in this part of the northern area. The extended terminal building and eastern walkway will screen any views of MSCP Phase 3. Smaller scale proposed components on the southern side of the terminal will be difficult to identify against the immediate backdrop provided by the existing retained terminal building.</p>			
<p>The horizontal angle of view occupied by built components in the northern area will not be extended and the heights of built components will not be increased compared with the current and future baseline. The scale, mass and architectural design of the proposed components will reflect existing characteristics, minimising the potential for visual contrast. There will be an overall incremental increase in the number of aircraft visible on the east apron in front of the proposed eastern walkway and east pier. The visual role of the eastern pier will decrease in the central and northern parts of the open access area as recreational; visual receptors' views become sideways on. The proposed changes to the taxiways will not be visible due to the almost flat plateau topography. The integrated/embedded mitigation masterplan identifies several ecological and landscape enhancements and reinforcements (items 5-9) in the fields and hedgerows between the open access area and the eastern side of runway 27 and the east taxiway. Whilst these will provide ecological and landscape benefits, they will not provide more than slight increases in screening in recreational visual receptors' views, due to operational restrictions on vegetation height.</p>			
<p>In summary, aircraft on the ground and built components at the northern area of Bristol Airport are prominent baseline visual elements in some views available to recreational visual receptors from most, but not all, of the Felton Common Open Access Area. In this baseline context some components of the Proposed Development, principally the eastern walkway and east pier, will result in an intensification of built development and activity in part of the horizontal angle of view occupied by the northern area, but will screen other activities and built components. There will be no changes in the views available in which Bristol Airport currently has no visual role. At Operation Phase Years 1 and 15 it is assessed that the magnitude of change for this group of high sensitivity visual receptors will vary from low in the southern and western parts of the open access area to negligible in northern and eastern parts and none on the northern and north-eastern edges. Consequently, the level of effect will not exceed low. Under the significance criteria set out in Table 9.9 in Chapter 9, the resultant moderate level of effect is possibly significant. Application of professional judgement for recreational visual receptors using Felton Common Open Access Area concludes that visual effects will not be significant. This judgement is based upon the extensive and long-established baseline context provided by Bristol Airport for the views available to recreational visual receptors using Felton Common Open Access Area and because it is likely that their most valued views are in directions away from Bristol Airport.</p>			
Magnitude of change Low	Type of effect: Permanent Adverse	Level of effect: Moderate	Significance Not Significant

Table 9G.29 Assessment of visual effects: visual receptors using Black Down Open Access Area

Visual receptors using Black Down Open Access Area			
<p>Visual receptor sensitivity: High due to recreational visual receptors being assessed as possessing high susceptibility in accordance with GLVIA3¹ and the high likelihood that these receptors attach high value to the views that are available when using this open access area given its AONB location.</p>			
<p>Relevant Figures: The location of Black Down Open Access Area within the study area is shown on Figure 9.35. The baseline view from Black Down Open Access Area as represented by Viewpoint 17 is shown in Figure 9.20. The photomontage from Viewpoint 17 at Beacon Batch, which is shown in Figure 9.32, shows the visual impact of the Proposed Development on recreational visual receptors using Black Down Open Access Area. .</p>			
<p>Minimum separation distance to boundary of Bristol Airport: Black Down Open Access Area has a minimum separation distance of 6.7km from the southern boundary of Bristol Airport.</p>			
<p>Assessment of effects – Operation Phase Years 1 & 15</p>			
<p>Commentary</p> <p>The ZTVs (Figures 9.3 and 9.4) show that the Proposed Development would be potentially visible from the same proportion of the elevated ridgeline and northern slopes as the baseline and permitted built development is visible. Views will not be available from any additional parts of the Black Down Open Access Area. It is highly likely that the only proposed components that will be identifiable to recreational visual receptors, due to their location and scale, will be the extension to the terminal building and the eastern walkway and east pier. As shown in the photomontage (Figure 9.32), the former will result in slight increase in the mass of the terminal building, whilst the latter's consistency of form and height will contrast with the more visually disparate elements that can sometimes be visually identified under the current baseline in this part of the northern area. Other proposed built components will be screened by existing built components or will be too small-scale to be identified over the separation distance of at least 6.7km. The Proposed Development will not extend the horizontal angle of views occupied by Bristol Airport or the cumulative scale, mass and height exhibited by the current and future baseline built components. It is likely that any incremental changes will only be identifiable from the most elevated parts of the Black Down Open Access Area close to Beacon Batch.</p> <p>In summary, some of the largest proposed components of the Proposed Development will sometimes be visible in the existing visual context of Bristol Airport. They will represent an incremental change within the existing, limited visual parameters of the built development at Bristol Airport and will not increase its vertical or horizontal extent. At Operation Phase Years 1 and 15 any minor, incremental visual change will be identifiable by high sensitivity recreational visual receptors from only from the small proportion of the Black Down Open Access Area where the difference in comparative elevation is greatest. It is assessed that the incremental visual change will result in a negligible magnitude of change and a minor level of effect that will be not significant.</p>			
<p>Magnitude of change Negligible</p>	<p>Type of effect: Permanent Neutral</p>	<p>Level of effect: Minor</p>	<p>Significance Not Significant</p>

Table 9G.30 Assessment of visual effects: visual receptors using Burrington Open Access Area

Visual receptors using Burrington Open Access Area			
<p>Visual receptor sensitivity: High due to recreational visual receptors being assessed as possessing high susceptibility in accordance with GLVIA3¹ and the high likelihood that these receptors attach high value to the views that are available when using this open access area given its AONB location.</p>			
<p>Relevant Figures: The location of Burrington Open Access Area within the study area is shown on Figure 9.35. The baseline view from Burrington Access Area as represented by Viewpoint 16 is shown in Figure 9.19. The photomontage from Viewpoint 16 at Burrington Ham, which is shown in Figure 9.31, shows the visual impact of the Proposed Development on recreational visual receptors using Burrington Open Access Area.</p>			
<p>Minimum separation distance to boundary of Bristol Airport: Burrington Open Access Area has a minimum separation distance of 5.3km from the southern boundary of Bristol Airport.</p>			
Assessment of effects – Operation Phase Years 1 & 15			
<p>Commentary</p> <p>The ZTVs (Figures 9.3 and 9.4) show that the Proposed Development would be potentially visible from the entirety of Burrington Open Access Area, as the baseline and permitted built development are potentially visible. When the screening provided by the high levels of tree cover across most of the open access area are taken into account, it is apparent that the long-distance northern views to Bristol Airport in which the Proposed Development might be visible are not widely available within Burrington Open Access Area. The low availability of views will equally apply to the Proposed Development. In the limited parts of the open access area, where elevation and absence for tree cover allow the requisite views to recreational visual receptors, the photomontage (Figure 9.31) confirms that none of the built components of the Proposed Development will be identifiable. This is due to the similarity in elevations and the consequent screening that is provided by the vegetation cover to the immediate south of Bristol Airport. The photomontage also shows that no existing or proposed built components extend or will extend above the section of the northern horizon that is formed by the tree cover on the Oatfield Ridge.</p> <p>In summary, it is assessed that at Operation Phase Years 1 and 15 none of the built components of the Proposed Development will be readily identifiable in the existing minimal visual context of Bristol Airport. Any possible, incremental visual change will be identifiable only from a small proportion of the Burrington Open Access Area and recreational visual receptors using most of the open access area will continue to have no views of the built components at Bristol Airport. Any minor, incremental visual change will be identifiable only from a small proportion of the Burrington Open Access Area. It is assessed that for the high sensitivity recreational visual receptors visiting Burrington Open Access Area the incremental visual change will result in a negligible magnitude of change and a minor level of effect that will be not significant.</p>			
Magnitude of change Negligible	Type of effect: Permanent Neutral	Level of effect: Minor	Significance Not Significant

Table 9G.31 Assessment of visual effects: visual receptors using Dolebury Warren Open Access Area

Visual receptors using Dolebury Warren Open Access Area			
<p>Visual receptor sensitivity: High due to recreational visual receptors being assessed as possessing high susceptibility in accordance with GLVIA3¹ and the high likelihood that these receptors attach high value to the views that are available when using this open access area given its AONB location.</p>			
<p>Relevant Figures: The location of Dolebury Warren Open Access Area within the study area is shown on Figure 9.35. The baseline view from Dolebury Warren Access Area as represented by Viewpoint 18 is shown in Figure 9.20.</p>			
<p>Minimum separation distance to boundary of Bristol Airport: Dolebury Warren Open Access Area has a minimum separation distance of 7.2km from the southern boundary of Bristol Airport.</p>			
Assessment of effects – Operation Phase Years 1 & 15			
Commentary			
<p>The ZTVs (Figures 9.3 and 9.4) show that the Proposed Development would be potentially visible from all but the southern side of Dolebury Warren Open Access Area. When the screening provided by the tree cover on the upper northern slope of Dolebury Warren is taken into consideration, potential views will only be available to recreational visual receptors close to the most elevated parts, primarily the northern and western ramparts of the Iron Age fort which remain locally distinctive topographical features. Given that none of the baseline built components at Bristol Airport, including the ATC tower, are readily identifiable in the views available from these parts of the open access area, it is highly unlikely that any of the proposed built components will be identifiable given that their maximum height will be 16m and most proposed built components will be screened by the existing built components in views from the south-west.</p>			
<p>In summary, it is assessed that none of the built components of the Proposed Development will be readily identifiable in the existing minimal visual context of Bristol Airport. Any possible, incremental visual change will be identifiable only from a small proportion of the Dolebury Open Access Area and recreational visual receptors using most of the open access area will continue to have no views of the built components at Bristol Airport. It is assessed that the incremental visual change will result in a negligible magnitude of change and a minor level of effect that will be not significant.</p>			
Magnitude of change Negligible	Type of effect: Permanent Neutral	Level of effect: Minor	Significance Not Significant

Table 9G.32 Assessment of visual effects: visual receptors using the southbound A38

Visual receptors using the southbound A38			
<p>Visual receptor sensitivity: Medium due to transient visual receptors being assessed as possessing medium susceptibility in accordance with GLVIA3¹ and the likelihood that these receptors attach medium value to the views that are available travelling along an 'A' road.</p>			
<p>Relevant Figures: The route of the A38 within the study area is shown on Figure 9.1. Baseline views from two locations of the closest section of the A38 are illustrated by Viewpoints 6 and 7 as shown in Figures 9.12 and 9.13. A photomontage of the Proposed Development from Viewpoint 7 is shown in Figure 9.28.</p>			
<p>Minimum separation distance to boundary of Bristol Airport: A section of the A38 forms the eastern boundary of Bristol Airport.</p>			
<p>Assessment of effects – Operation Phase Years 1 & 15</p>			
<p>Commentary</p> <p>The ZTVs (refer to Figures 9.3 and 9.4) show that the Proposed Development would be potentially visible from a slightly reduced length of the A38 compared with the current and future baseline views of built components at Bristol Airport. Views would not be potentially available from the section north of Potters Hill, because, as set out in the baseline for this settlement (Table 9G.5), these potential views are screened by vegetation and built development in Potters Hill and alongside the A38. Upon completion of the proposed works on the A38 at the Downside Road junction, the detailed composition of the roadside views along this 400m long section will be modified by Operation Phase Year 1, but the key attributes of the transient view will not alter. The removal of some tree cover at the junction will not open up views into part of the northern area of Bristol Airport, as a large amount of mature tree cover will remain and item 16 in the integrated/embedded mitigation masterplan will increase the density of planting at the margins of this woodland. This marginal planting will be fully established and visually functional by Operation Phase Year 15.</p> <p>The composition and outline of the closest built components will alter with the demolition of some baseline built components, to be replaced by the eastern end of the eastern walkway and east pier. The proposed development will have a similar height to the baseline built components and transient, partial views will only be available in the long-established context of the current and future built development within the northern area.</p> <p>As transient visual receptors continue along the section of A38 routed around the eastern boundary of Bristol Airport the proposed integrated/embedded mitigation masterplan changes specified under items 6-9 to some of the landscape elements in the adjacent fields and the reinforcement of hedgerows may cumulatively gradually result in incremental visual change by Operation Phase Year 1. The proposed changes to taxiways and the subsequent changes to the distribution of taxiing and stationary aircraft will not be discernible due to the flat elevation and low intervening hedgerows. From the short section of A38 that passes the exposed rock outcrop (close to Viewpoint 7) southwards, southbound transient visual receptors will have no views of any of the proposed built components. As it becomes established, the proposed integrated/embedded mitigation masterplan changes to boundary planting, close to the southern entrance (items 8 and 9) will slightly increase the already high level of vegetative screening of existing and permitted built components on the eastern side of the southern area, including the new administration building. Once southbound transient receptors have passed around the southern entrance of Bristol Airport they will experience no changes to current (and future) baseline views.</p> <p>In summary, it is estimated that forward and oblique views are and will be available for about 1km and are likely to last for 1-2 minutes. The composition of the views briefly available will be changed incrementally, with some existing components being lost and some proposed components, mainly the eastern walkway and east pier, being partly visible in transient and filtered views. Some of the proposed reinforcement planting and changes to the management regime will increase the effectiveness of the visual filtering of some existing built components by hedgerows and boundary planting. The completed proposed works along some of the relevant section of A38 will not increase the locally prominent baseline visual role of the associated infrastructure, such as: lighting columns, traffic lights, barriers and signage. At Operation Phase Years 1 and 15 it is assessed that these medium sensitivity transient receptors will sustain a magnitude of change that will be negligible and the level of effect will be negligible and not significant.</p>			
Magnitude of change Negligible	Type of effect: Permanent Neutral	Level of effect: Negligible	Significance Not Significant

Table 9G.33 Assessment of visual effects: visual receptors using the northbound A38

Visual receptors using the northbound A38			
<p>Visual receptor sensitivity: Medium due to transient visual receptors being assessed as possessing medium susceptibility in accordance with GLVIA3¹ and the likelihood that these receptors attach medium value to the views that are available travelling along an 'A' road.</p>			
<p>Relevant Figures: The route of the A38 within the study area is shown on Figure 9.1. Baseline views from two locations of the closest section of the A38 are illustrated by Viewpoints 6 and 7 as shown in Figures 9.12 and 9.13, with the night-time baseline photograph from Viewpoint 7 shown in Figure 9.23. A photomontage of the Proposed Development from Viewpoint 7 is shown in Figure 9.28.</p>			
<p>Minimum separation distance to boundary of Bristol Airport: A section of the A38 forms the eastern boundary of Bristol Airport.</p>			
<p>Assessment of effects – Operation Phase Years 1 & 15</p>			
<p>Commentary</p> <p>The ZTVs (refer to Figures 9.3 and 9.4) show that the Proposed Development would be potentially visible from a slightly reduced length of the A38 compared with the current and future baseline views of built components at Bristol Airport. Views would not be available from the section north of Potters Hill, because, as set out in the baseline for southbound transient visual receptors, these potential rear views are screened by vegetation and built development in Potters Hill and alongside the A38. The proposed works on the A38, close to the Downside Road junction, will be completed by Operation Phase Year 1 and will modify the detailed composition of the roadside views along this 400m long section, but the key attributes of the transient view will not alter.</p> <p>Any potential north-western views of northern surface carpark and the proposed gyratory road from more southerly sections of the A38 will be screened by the 10.2m high proposed eastern walkway and east pier. In the partial views from the section of A38 between the southern and northern entrance islands the composition and outline of the built components in the northern will incrementally alter with the proposed extensions to the terminal building and the introduction of the eastern walkway and east pier. The proposed development will have a similar height, scale and form to the long-established existing built development within the northern area, although the visual impression may be of a minor intensification and lengthening of the built development and activities in this section of transient visual receptors' views. The changes in these views, especially the visual role of the proposed eastern walkway and east pier, are illustrated in the photomontage from Viewpoint 7 (Figure 9.28).</p> <p>In summary, it is estimated that forward and oblique views are and will be available for about 1km and are likely to last for 1-2 minutes. The composition of the views briefly available will be slightly changed with some existing components being lost and some proposed components, mainly the extended terminal building and eastern walkway and east pier and associated aircraft, being partly visible in transient and filtered views. Some of the proposed reinforcement planting and changes to the management regime set out in the integrated /embedded mitigation masterplan will incrementally increase the effectiveness of the filtering by hedgerows and boundary planting. The proposed works along some of the relevant section of A38 that will be completed by Operation Phase Year 1 will not increase the locally prominent baseline visual role of the associated infrastructure such as lighting columns, traffic lights, barriers and signage. At Operation Phase Years 1 and 15 it is assessed that for the medium sensitivity transient visual receptors travelling south on the A38 the magnitude of change will be low and the level of effect will be minor which will be not significant.</p>			
Magnitude of change Low	Type of effect: Permanent Neutral	Level of effect: Minor	Significance Not Significant

Table 9G.34 Assessment of visual effects: visual receptors travelling along Downside Road

Visual receptors travelling along Downside Road			
<p>Visual receptor sensitivity: Medium due to transient visual receptors being assessed as possessing medium susceptibility in accordance with GLVIA3¹ and the likelihood that these receptors attach medium value to the views that are available travelling along this road.</p>			
<p>Relevant Figures: The route of Downside Road is shown on Figure 9.36. The baseline view from an open location on Downside Road is represented by Viewpoint 1 as shown in Figure 9.7. A photomontage of the Proposed Development from Viewpoint 1 is shown in Figure 9.26.</p>			
<p>Minimum separation distance to boundary of Bristol Airport: A section of Downside Road is routed along the northern boundary of Bristol Airport.</p>			
Assessment of effects – Operation Phase Years 1 & 15			
Commentary			
<p>The ZTVs (refer to Figures 9.3 and 9.4) show that the Proposed Development would be potentially visible the same 3.5km long section of Downside Road from where current and future baseline views are potentially available, principally to visual receptors in eastbound vehicles. Views from the western-most sub-section will continue to be screened by the adjacent plantation woodland in Wrington Warren and Willis's Batch. Similarly views from the sub-section of Downside Road, west of Cook's Bridle Path, will be screened by the tree cover alongside the fairways in the intervening Tall Pines Golf Club and alongside Cook's Bridle Path. Transient visual receptors travelling east and west along the sub-section along the northern boundary of the Airport will continue to have their close distance southern views into the northern area screened by the perimeter bund and its vegetation cover. The proposed road works on the A38, including the redesign at the junction of A38 and Downside Road, will be briefly prominent during the construction works but will be complete by Operation Phase Year 1, by when the redesign will not be noticeable in the context of the busy A38.</p>			
<p>The only sub-section of Downside Road where transient visual receptors, principally those travelling eastwards, will briefly have views of some of the proposed built components in the northern area will be the 500m long sub-section east of Cook's Bridle Path. The partly visible components of the Proposed Development will be the western end of Phase 3 MSCP Phase 3 and the western extension of the Terminal Building. The visual changes are shown in the photomontage from Viewpoint 1 (Figure 9.27). This magnitude of change is assessed as low in Table 9G.19 for the residential visual receptors at properties alongside this section of Downside Road, however the transient nature and lower height of these views for receptors in vehicles and their availability being mostly restricted to those travelling east must be considered in this assessment. The proposed reinforcement of existing boundary planting close to the junction of North Side Road and Downside Road under items 1 and 2 in the integrated/embedded mitigation masterplan will be partly established by Operation Phase Year 1 and fully established by Operation Phase Year 15 but will only provide fleeting additional screening for transient receptors travelling along a short length of this sub-section of Downside Road.</p>			
<p>In summary, the Proposed Development will be visible for approximately 500m of the 5km total length of Downside Road. Any changes will be transient and largely restricted to visual receptors travelling in one direction (east). They will also only be visible in the visual context of existing built development at Bristol Airport in the same field of view. At Operation Phase Years 1 and 15 for this group of medium sensitivity transient receptors it is assessed that the magnitude of change will be negligible and the level of effect will be negligible that which will be not significant.</p>			
Magnitude of change Negligible	Type of effect: Permanent Neutral	Level of effect: Negligible	Significance Not Significant

Table 9G.35 Assessment of visual effects: visual receptors using the Wrington Warren network of PRoWs

Visual receptors using the Wrington Warren network of PRoWs			
<p>Visual receptor sensitivity: High due to recreational visual receptors being assessed as possessing high susceptibility in accordance with GLVIA3¹ and the high likelihood that these receptors attach high value to the views that are available when using this PRoW network.</p>			
<p>Relevant Figures: The location of Wrington Warren network (Network A) of PRoWs within the study area is shown on Figure 9.36.</p>			
<p>Minimum separation distance to boundary of Bristol Airport: Wrington Warren network (Network A) of PRoWs is located at a minimum separation distance of 300m west of the western boundary of Bristol Airport.</p>			
<p>Assessment of effects – Operation Phase Years 1 & 15</p>			
<p>Commentary</p> <p>The ZTVs (refer to Figures 9.3 and 9.4) show that the Proposed Development would be potentially visible from a small proportion of this network of PRoWs due to their westerly aspect and lower elevation. When the screening role provided by the dense coniferous tree cover is considered, it is assessed that recreational visual receptors will have no views of any of the built components of the Proposed Development.</p> <p>In summary, as there will be no changes to the views available to recreational visual receptors using the Wrington Warren network of PRoWs, the magnitude of change will be no change and the level of effect will be none.</p>			
<p>Magnitude of change No change</p>	<p>Type of effect: Permanent Neutral</p>	<p>Level of effect: None</p>	<p>Significance Not Significant</p>

Table 9G.36 Assessment of visual effects: visual receptors using the east of Redhill network of PRowS

Visual receptors using the east of Redhill network of PRowS			
<p>Visual receptor sensitivity: High due to recreational visual receptors being assessed as possessing high susceptibility in accordance with GLVIA3¹ and the high likelihood that these receptors attach high value to the views that are available when using this PRow network.</p>			
<p>Relevant Figures: The location of the east of Redhill network of PRowS (Network B) within the study area is shown on Figure 9.36.</p>			
<p>Minimum separation distance to boundary of Bristol Airport: The east of Redhill network of PRowS is located at a minimum separation distance of 800m south-east of the south-eastern corner of Bristol Airport.</p>			
<p>Assessment of effects – Operation Phase Years 1 & 15</p>			
<p>Commentary</p> <p>The ZTVs (refer to Figures 9.3 and 9.4) show that the Proposed Development would be potentially visible from some of the central parts of this network of PRowS. This does not allow for the screening provided by the tree cover close to the PRowS nor the bunding and screening around the closest sections of the boundary of Bristol Airport. Given that the main built components of the Proposed Development will be sited at least 1.4km away in the northern area, alongside existing built components with the same heights which cannot be seen, it is highly unlikely that any components of the Proposed Development will be visible.</p> <p>In summary, at Operation Phase Years 1 and 15 there will be minimal potential for any changes to the views available to high sensitivity recreational visual receptors using the east of Redhill (Network B) network of PRowS, the magnitude of change will be negligible and the level of effect will be minor and not significant.</p>			
Magnitude of change Negligible	Type of effect: Permanent Neutral	Level of effect: Minor	Significance Not Significant

Table 9G.37 Assessment of visual effects: visual receptors using west and north of Redhill network of PRowWs

Visual receptors using west and north of Redhill network of PRowWs			
<p>Visual receptor sensitivity: High due to recreational visual receptors being assessed as possessing high susceptibility in accordance with GLVIA3¹ and the high likelihood that these receptors attach high value to the views that are available when using this PRowW network.</p>			
<p>Relevant Figures: The location of west and north of Redhill network of PRowWs (Network C) within the study area is shown on Figure 9.36.</p>			
<p>Minimum separation distance to boundary of Bristol Airport: The west and north of Redhill network of PRowWs is located at a minimum separation distance of 350m south-west of the proposed Silver Zone car park extension (Phase 2).</p>			
<p>Assessment of effects – Operation Phase Years 1 & 15</p>			
<p>Commentary</p> <p>The ZTVs (refer to Figures 9.3 and 9.4) show that the Proposed Development would be potentially visible from some parts of this network of PRowWs. This does not allow for the screening provided by the extensive tree cover. Given that the closest existing component: the Silver Zone car park extension (Phase 1) is screened, it is unlikely that the proposed Silver Zone car park extension (Phase 2) will be visible nor that any much more distant built components of the Proposed Development in the central and northern areas will be visible.</p> <p>In summary, as at Operation Phase Years 1 and 15 there will be minimal potential for any changes to the views available to high sensitivity recreational visual receptors using the north and west of Redhill (Network C) network of PRowWs, the magnitude of change will be no change and the level of effect will be none.</p>			
Magnitude of change No change	Type of effect: Permanent Neutral	Level of effect: None	Significance Not Significant

Table 9G.38 Assessment of visual effects: visual receptors using the Hailstones Farm PRoW

Visual receptors using the Hailstones Farm PRoW			
<p>Visual receptor sensitivity: High due to recreational visual receptors being assessed as possessing high susceptibility in accordance with GLVIA3¹ and the high likelihood that these receptors attach high value to the views that are available when using this PRoW.</p>			
<p>Relevant Figures: The location of the Hailstones Farm PRoW within the study area is shown on Figure 9.36.</p>			
<p>Minimum separation distance to boundary of Bristol Airport: The Hailstones Farm PRoW (Network D) is located at a minimum separation distance of 250m south of the southern boundary of Bristol Airport.</p>			
<p>Assessment of effects – Operation Phase Years 1 & 15</p>			
<p>Commentary</p> <p>The ZTVs (refer to Figures 9.3 and 9.4) show that the Proposed Development would be potentially visible from a small proportion of this PRoW. When the screening role provided by the existing dense vegetation cover is considered, it is assessed that recreational visual receptors will have no views of any of the built components of the Proposed Development including the proposed Silver Zone car park extension (Phase 2).</p> <p>In summary, at Operation Phase Years 1 and 15 as there will be no changes to the views available to high sensitivity recreational; visual receptors using the Hailstones Farm PRoW i.e. no components at Bristol Airport will be visible, the magnitude of change will be no change and the level of effect will be none.</p>			
<p>Magnitude of change</p> <p>No change</p>	<p>Type of effect:</p> <p>Permanent Neutral</p>	<p>Level of effect:</p> <p>None</p>	<p>Significance</p> <p>Not Significant</p>

Table 9G.39 Assessment of visual effects: visual receptors using the Hunters Hall PRoW

Visual receptors using the Hunters Hall PRoW			
Visual receptor sensitivity: High due to recreational visual receptors being assessed as possessing high susceptibility in accordance with GLVIA3 ¹ and the high likelihood that these receptors attach high value to the views that are available when using this PRoW.			
Relevant Figures: The location of the Hunters Hall PRoW (Network E) within the study area is shown on Figure 9.36 .			
Minimum separation distance to boundary of Bristol Airport: The Hunters Hall PRoW is located at a minimum separation distance of 400m south-east of the eastern boundary of Bristol Airport.			
Assessment of effects – Operation Phase Years 1 & 15			
Commentary			
<p>The ZTVs (refer to Figures 9.3 and 9.4) show that the Proposed Development would be potentially visible from the northern half of the PRoW, with the southern half of the PRoW being at an elevation that is too low to allow recreational visual receptors to have any views of the built components in Bristol Airport's northern area. From the northern half of Network E heavily filtered views are likely to include the proposed eastern walkway and east pier and associated standing aircraft. The proposed extended terminal building may be identifiable. All other proposed built components will be screened by existing or proposed built development or will be too small-scale to be identifiable. The minor role of the built development in the northern area in these filtered north-western views will not alter compared with the current and future baseline.</p> <p>In summary, at Operation Phase Years 1 and 15 there will be minor changes to the filtered views available to high sensitivity recreational visual receptors using the northern section of the Hunters Hall PRoW (Network E), the magnitude of change will be negligible and the level of effect will be minor.</p>			
Magnitude of change Negligible	Type of effect: Permanent Neutral	Level of effect: Minor	Significance Not Significant

Table 9G.40 Assessment of visual effects: visual receptors using the Felton Common and environs network of PRoWs

Visual receptors using the Felton Common and environs network of PRoWs

Visual receptor sensitivity: High due to recreational visual receptors being assessed as possessing high susceptibility in accordance with GLVIA3¹ and the high likelihood that these receptors attach high value to the views that are available when using this PRoW network.

Relevant Figures: The location of the Felton Common and environs network of PRoWs (Network F) within the study area is shown on **Figure 9.36**. Viewpoint 5 is sited at the south-western corner of PRoW Network F and the baseline view is shown in **Figure 9.11**.

Minimum separation distance to boundary of Bristol Airport: The western edge Felton Common and environs network of PRoWs is located at a minimum separation distance of 180m east of the eastern boundary of Bristol Airport as marked by the A38.

Assessment of effects – Operation Phase Years 1 & 15

Commentary

The ZTVs (**Figures 9.3** and **9.4**) show that the Proposed Development would be potentially visible to recreational visual receptors using most of the PRoWs in the western part of Network F apart from some sections of PRoWs routed at lower elevations close to north-eastern and northern edges. When views are available, the closest and most prominent proposed built component will be the eastern walkway and east pier with heights of 10.2m. The east pier will be visible in the location that is presently occupied by the administration building. The eastern walkway and east pier will screen any views into the northern surface car park including the proposed gyratory road. The western terminal extension will slightly increase the visual role of the terminal building, but the ATC tower will remain as the most prominent individual built component in this part of the northern area. The extended terminal building and eastern walkway will screen any views of the MSCP Phase 3. Smaller scale proposed components on the southern side of the terminal will be difficult to identify against the immediate backdrop provided by the existing retained terminal building.

The horizontal angle of view occupied by built components in the northern area will not be extended and the heights of built components will not be increased compared with the current and future baseline. The scale, mass and architectural design of the proposed components will reflect existing design characteristics, minimising the potential for visual contrast. There will be an overall incremental increase in the number of aircraft visible in front of the proposed eastern walkway and east pier. Items 5-7 set out in the integrated/embedded mitigation masterplan identify a limited number of ecological and landscape enhancements and reinforcements in the fields and hedgerows between the western edge of Felton Common and the eastern side of Runway 27 and the east taxiway. When these are established or implemented, which is likely to be by Operation Phase Year 1, these will provide ecological and landscape benefits, they will not provide more than slight increases in screening in recreational visual receptors' views due to operational restrictions on vegetation height.

Recreational visual receptors using PRoWs in the central part of Network F will only have minimal views of the additional standing and taxiing aircraft and the eastern end of the proposed east pier. Receptors using the eastern PRoWs will continue to have no views of any built components or ground level aircraft at Bristol Airport above and to the west of Felton Common.

In summary, under current and future baselines aircraft on the ground and built components at the northern area of Bristol Airport are prominent visual elements in some views available to recreational visual receptors from most, but not all, of the western half of this extensive PRoW Network F. In this current and future baseline context some components of the Proposed Development, principally the eastern walkway and east pier, will result in an intensification of built development and activity in part of the horizontal angle of view occupied by the northern area, but they will screen other proposed activities and built components. There will be no changes in the views available in which Bristol Airport has no visual role, with no new views of Bristol Airport from the PRoWs in the eastern half of Network F. Operational requirements restrict the potential for visual mitigation measures to be introduced between Network F and the A38 and the limited number of ecological and landscape measures set out in the integrated/embedded mitigation masterplan will have only an incremental effect, even by Operation Phase Year 15. At Operation Phase Years 1 and 15 it is assessed that for this group of high sensitivity recreational visual receptors the magnitude of change will vary from none in the eastern half of Network F to negligible on northern parts of the western half of Network F and low for PRoWs close to the western edge. Consequently, the level of effect will not exceed moderate and when aggregated for recreational visual receptors across Network F the level of effect is assessed as minor and not significant.

Magnitude of change Negligible	Type of effect: Permanent Adverse	Level of effect: Minor	Significance Not Significant
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Table 9G.41 Assessment of visual effects: visual receptors using the south side of Felton network of PRowWs

Visual receptors using the south side of Felton network of PRowWs			
<p>Visual receptor sensitivity: High due to recreational visual receptors being assessed as possessing high susceptibility in accordance with GLVIA3¹ and the high likelihood that these receptors attach high value to the views that are available when using this PRowW network.</p>			
<p>Relevant Figures: The location of the south side of Felton network of PRowWs (Network G) within the study area is shown on Figure 9.36.</p>			
<p>Minimum separation distance to boundary of Bristol Airport: The south side of Felton network of PRowWs is located at a minimum separation distance of 900m north-west corner of Bristol Airport.</p>			
<p>Assessment of effects – Operation Phase Years 1 & 15</p>			
<p>Commentary</p> <p>The ZTVs (refer to Figures 9.3 and 9.4) show that the Proposed Development would be potentially visible from the northern part of Network G. This does not allow for the screening provided by the nearby residential properties alongside Stanshall's Lane and intervening tree cover. This screening will ensure that, as under the current and future baseline, no built components or ground level aircraft associated with the Proposed Development will be visible to this group of recreational visual receptors.</p> <p>In summary, as there will no potential for any changes to the views available to recreational visual receptors using the south of Felton (Network G) network of PRowWs, the magnitude of change will be no change and the level of effect will be none.</p>			
<p>Magnitude of change No change</p>	<p>Type of effect: Permanent Neutral</p>	<p>Level of effect: None</p>	<p>Significance Not Significant</p>

Table 9G.42 Assessment of visual effects: visual receptors using the west side of Felton network of PRoWs

Visual receptors using the west side of Felton network of PRoWs			
<p>Visual receptor sensitivity: High due to recreational visual receptors being assessed as possessing high susceptibility in accordance with GLVIA3¹ and the high likelihood that these receptors attach high value to the views that are available when using this PRoW network.</p>			
<p>Relevant Figures: The location of the west side of Felton network of PRoWs (Network G) within the study area is shown on Figure 9.36. Viewpoint 4 is sited at the eastern side of PRoW Network G and the baseline view is shown in Figure 9.10.</p>			
<p>Minimum separation distance to boundary of Bristol Airport: The west side of Felton network of PRoWs is located at a minimum separation distance of 360m from the north-west corner of Bristol Airport.</p>			
Assessment of effects – Operation Phase Years 1 & 15			
Commentary			
<p>The ZTVs (refer to Figures 9.3 and 9.4) show that the Proposed Development would be potentially visible from all this network of PRoWs. This does not allow for the screening provided by the existing nearby and intervening tree cover. This screening will make it likely that, as under the current and future baseline, no built components or ground level aircraft associated with the Proposed Development will be visible to this group of recreational visual receptors.</p> <p>In summary, as there will limited potential for any changes to the views available to recreational visual receptors using the west of Felton (Network H) network of PRoWs at Operation Phase Years 1 and 15, for this group of high sensitivity recreational visual receptors the magnitude of change will be negligible and the level of effect will be minor and not significant.</p>			
Magnitude of change Negligible	Type of effect: Permanent Neutral	Level of effect: Minor	Significance Not Significant

Table 9G.43 Assessment of visual effects: visual receptors using the north side of Felton network of PRowWs

Visual receptors using the north side of Felton network of PRowWs			
<p>Visual receptor sensitivity: High due to recreational visual receptors being assessed as possessing high susceptibility in accordance with GLVIA3¹ and the high likelihood that these receptors attach high value to the views that are available when using this PRowW network.</p>			
<p>Relevant Figures: The location of the north side of Felton network of PRowWs (Network H) within the study area is shown on Figure 9.36.</p>			
<p>Minimum separation distance to boundary of Bristol Airport: The west side of Felton network of PRowWs is located at a minimum separation distance of 1.0km from the north-west corner of Bristol Airport.</p>			
Assessment of effects – Operation Phase Years 1 & 15			
Commentary			
<p>The ZTVs (refer to Figures 9.3 and 9.4) show that the Proposed Development would be potentially visible from the southern part of this network of PRowWs. This does not allow for the screening provided by the large amount of tree cover plus buildings in Felton. This screening will make it highly likely that, as under the current and future visual baseline, no built components or ground level aircraft associated with the Proposed Development will be visible to this group of recreational visual receptors.</p>			
<p>In summary, at Operation Phase Years 1 and 15 there will minimal potential for any changes to the views available to recreational visual receptors using the north of Felton (Network H) network of PRowWs. For this group of high sensitivity visual receptors, the magnitude of change will be no change and the level of effect will be none.</p>			
Magnitude of change No change	Type of effect: Permanent Neutral	Level of effect: None	Significance Not Significant

Table 9G.44 Assessment of visual effects: visual receptors using the north-west of Potters Hill network of PRoWs

Visual receptors using the north-west of Potters Hill network of PRoWs			
<p>Visual receptor sensitivity: High due to recreational visual receptors being assessed as possessing high susceptibility in accordance with GLVIA3¹ and the high likelihood that these receptors attach high value to the views that are available when using this PRoW network.</p>			
<p>Relevant Figures: The location of the north-west of Potters Hill network of PRoWs (Network J) within the study area is shown on Figure 9.36. Viewpoint 3 is sited on a PRoW in Network J and the day time baseline photograph from this viewpoint is shown in Figure 9.9 and the night-time baseline photograph is shown in Figure 9.22. The photomontage from Viewpoint 3 is shown in Figure 9.27.</p>			
<p>Minimum separation distance to boundary of Bristol Airport: The north-west of Potters Hill network of PRoWs is located at a minimum separation distance of 670m to the north of the northern boundary of Bristol Airport.</p>			
Assessment of effects – Operation Phase Years 1 & 15			
Commentary			
<p>The ZTVs (refer to Figures 9.3 and 9.4) show that the Proposed Development would be potentially visible from the southern part of this network of PRoWs. This does not allow for the screening provided by the large amount of hedgerow and tree cover close to Yewtree Farm and within Oatfield Wood. As under the current and future baseline conditions, the only views available will be from a 60m long section of the most elevated PRoW around Viewpoint 3. The photomontage in Figure 9.27 shows the changes that will arise in the middle ground of this elevated view. The principal changes will be the removal of piecemeal built development to the east of the terminal building to be replaced by the long, continuous, low form of the proposed eastern walkway and east pier. This will reduce the presence of Runway 29 and screen changes to the layout of the taxiways. Its presence will bring increased visual coherence to this part of the northern area and will therefore not be adverse.</p>			
<p>The proposed western terminal extension will marginally increase the mass of the terminal building and the proposed new canopy will alter the visual detail in a small part of the view. The proposed MSCP Phase 3 will be a minor new visual element seen as an extension of Phase 1 and above residential development on Oatfield/Hyatt Wood Road. Overall the form, scale, mass and architectural style of the built development in the northern area will not be modified by the proposed built components. The role of the Mendip Hills in forming the backdrop and the elevated far horizon will not be altered or compromised. The gyratory road and the changes to the layout of some of the surface car parking will be partly screened and filtered by the established tree cover on the northern perimeter bunds and alongside Downside Road. Although some of the localised reinforcement planting for some locations close to the northern boundary set out in the integrated/embedded mitigation masterplan will be theoretically visible from close to Viewpoint 3, even when it is fully established by Operation Phase Year 15 it will have only a minor, incremental visual role.</p>			
<p>In summary, at Operation Phase Years 1 and 15 the Proposed Development will only be seen by recreational visual receptors using a fraction of the length of the PRoWs in Network J. The open, elevated view available from Viewpoint 3 is only available for approximately 60m. Within this view the proposed eastern walkway, east pier, terminal extension and canopy and MSCP Phase 3 will be visible within the existing visual context of the overall built development in the northern area. They will contribute to a rationalisation of the appearance of the built development and therefore should not be assessed as an adverse visual change. In the short-lived key view, it is assessed that for the high sensitivity recreational visual receptors the magnitude of visual change will be low and the level of effect will be moderate. Application of the evaluation matrix in Table 9.9 in Chapter 9 concludes that this effect will be possibly significant. Application of professional judgement based upon the design attributes of the eastern walkway, pier and canopy, allied to the absence of any visual change across a high proportion of Network J, lead to a conclusion that the proposed changes will be not significant.</p>			
Magnitude of change Low	Type of effect: Permanent Neutral	Level of effect: Moderate	Significance Not Significant

Table 9G.45 Assessment of visual effects: visual receptors using the Lulsgate Bottom PRoW

Visual receptors using the Lulsgate Bottom PRoW			
<p>Visual receptor sensitivity: High due to recreational visual receptors being assessed as possessing high susceptibility in accordance with GLVIA3¹ and the high likelihood that these receptors attach high value to the views that are available when using this PRoW.</p>			
<p>Relevant Figures: The location of the Lulsgate Bottom PRoW (Network K) within the study area is shown on Figure 9.36. The baseline photograph from Viewpoint 2 in Figure 9.8 is representative of views available to recreational visual receptors using this PRoW.</p>			
<p>Minimum separation distance to boundary of Bristol Airport: The Lulsgate Bottom PRoW is located at a minimum separation distance of 300m north of the northern boundary of Bristol Airport.</p>			
Assessment of effects – Operation Phase Years 1 & 15			
Commentary			
<p>The built components of the Proposed Development that are likely to be partly visible above the tree cover along Bristol Airport's northern boundary are the proposed eastern walkway and east pier, the western terminal extension, the terminal canopy and the MSCP Phase 3. Only the upper sections of these proposed built components will be visible as their lower sections will be screened or at least heavily filtered by the intervening tree cover. The upper section of the MSCP Phase 3 may slightly extend the horizontal angle of these recreational receptors' southern view that is occupied by the built development at Bristol Airport. The top of the MSCP Phase 3 will not extend above currently visible built development, as it is sited at an elevation that is approximately 15m below the west apron and the base of the western walkway. The western terminal extension will increase the extent of the horizon occupied by the terminal building, but its height will not change in comparison with the baseline. The top of the eastern walkway and east pier will extend slightly above the canopy of the tree cover, but it will provide additional partial screening of the aircraft at stands on the east apron. Under the baseline the current administration building in the former ATC tower extends above the horizon in this section of the southern view providing a precedent for the presence of built components.</p>			
<p>The changes to ground level components in the northern area, including the proposed gyratory road and changes to the arrangement of the internal surface car parking, will be unlikely to be visible due to screening or heavy filtering. If heavily filtered views are seasonally available when trees are not in leaf, their operation will represent an incremental change in the arrangement of current and future baseline components in this part of the northern area of Bristol Airport.</p>			
<p>In summary, the upper sections of built components of the Proposed Development that are sited on the most elevated part of the northern area of Bristol Airport will change the detailed composition of a proportion of the southern view that is available to recreational visual receptors using this PRoW. The proposed new and extended built components will reflect the height, scale, mass and appearance of the current and future baseline built components in this view. Effective screening of the lower sections of these built components, the ground level components and operational activities will continue to be provided by the tree cover on the northern perimeter bund. At Operation Phase Years 1 and 15 it is assessed that this group of high sensitivity visual receptors will sustain a magnitude of change that will vary between negligible and low (depending upon their precise location and seasonality) and that the level of effect will periodically be moderate. Under the significance criteria set out in Table 9.9 in Chapter 9, a moderate level of effect is possibly significant. Application of professional judgement for the recreational visual receptors concludes that the long-standing baseline visual prominence of built components and aircraft at Bristol Airport has the consequence that a limited intensification of built development that retains the visual characteristics of current and future baseline built development should be assessed as resulting in a visual effect that is not significant.</p>			
Magnitude of change Low	Type of effect: Permanent Adverse	Level of effect: Moderate	Significance Not Significant

Table 9G.46 Assessment of visual effects: visual receptors using the north of Downside network of PRoWs

Visual receptors using the north of Downside network of PRoWs			
<p>Visual receptor sensitivity: High due to recreational visual receptors being assessed as possessing high susceptibility in accordance with GLVIA3¹ and the high likelihood that these receptors attach high value to the views that are available when using this PRoW network.</p>			
<p>Relevant Figures: The location of the north of Downside network of PRoWs (Network L) within the study area is shown on Figure 9.36. Viewpoints 13 and 14 are sited within Network L and the day time baseline photograph from these viewpoints are shown in Figure 9.18 and the night-time baseline photograph for Viewpoint 14 is shown in Figure 9.24. The photomontage from Viewpoint 14 is shown in Figure 9.30.</p>			
<p>Minimum separation distance to boundary of Bristol Airport: The north of Downside network of PRoWs is located at a minimum separation distance of 250m to the north of the northern boundary of Bristol Airport.</p>			
Assessment of effects – Operation Phase Years 1 & 15			
Commentary			
<p>The ZTVs (refer to Figures 9.3 and 9.4) show that the Proposed Development would be potentially visible from a slightly reduced proportion of Network L in comparison with the availability of current and future baseline views of the built development and ground level aircraft at Bristol Airport. The coverage of these ZTVs is likely to be mostly generated by the tail fins of aircraft at Stands 38-39. Given the highly limited views available of current and future baseline built components other than the ATC tower, it is unlikely that extensive views will be possible of the proposed components that have a maximum height of 16m. Any visual changes will be most likely for recreational visual receptors using the more elevated PRoWs and the worst-case scenario is shown in the photomontage from Viewpoint 14 (Figure 9.30). This shows that other than more aircraft tail fins, a small proportion of recreational visual receptors using Network L may have partial views of the MSCP Phase 3, the terminal canopy and a section of the eastern walkway. Cumulatively these proposed built components will represent a minor visual change. They will not extend the horizontal angle of view within which the built development at Bristol Airport is seen, only the ATC tower will continue to extend above the horizon formed by the Mendip Hills and all the partly visible proposed components will reflect the scale, height, mass and appearance of current and future baseline components in the same views.</p>			
<p>In summary, at Operation Phase Years 1 and 15 the Proposed Development will only be seen by recreational visual receptors using a small proportion of the length of the PRoWs in Network L. The open, elevated and framed view available from Viewpoint 14 is unlikely to be available to recreational visual receptors anywhere else within Network L. Where views are available they will continue to be primarily of the upper section of the ATC tower and possibly of some aircraft tail fins. For this group of high sensitivity recreational visual receptors, it is assessed that the magnitude of visual change will be negligible and the level of effect will be minor and not significant.</p>			
Magnitude of change Negligible	Type of effect: Permanent Neutral	Level of effect: Minor	Significance Not Significant

Table 9G.47 Assessment of visual effects: visual receptors using the Tall Pines Golf Club

Visual receptors at Tall Pines Golf Club			
<p>Visual receptor sensitivity: High due to recreational visual receptors being assessed as possessing high susceptibility in accordance with GLVIA3¹ and the high likelihood that these receptors attach medium or high value to the views that are available playing at or visiting Tall Pines Golf Club.</p>			
<p>Relevant Figures: The location of Tall Pines Golf Club within the study area is shown on Figure 9.36.</p>			
<p>Minimum separation distance to boundary of Bristol Airport: Tall Pines Golf Club is located at a minimum separation distance of 30m west and north of the boundary of Bristol Airport.</p>			
<p>Assessment of effects – Operation Phase Years 1 & 15</p>			
<p>Commentary</p> <p>The ZTVs (refer to Figures 9.3 and 9.4) show that the Proposed Development would not be potentially visible from central parts of the Golf Club which is occupied by a shallow valley. The low height of many of the proposed components will favour them being screened by either intervening vegetation cover and/or existing built components in the western part of the northern area of Bristol Airport. The minimal visual role of the baseline built components of comparable scale and height in residential visual receptors' views, strongly indicates that the proposed built components in the western part of the northern area, such as the terminal extension and the MSCP Phase 3, will be unlikely to be visible. They will have a minimal visual role in the views of this group of residential visual receptors. The proximity of Stands 38-39 to the south-eastern corner of the Golf Club means that there may be an increased presence of ground level aircraft in some views available from within the Golf Club. It is likely that any visual change will be minimal given the large amount of mature tree cover that is present close to the southern end of Cook's Bridle Path. Any residual views will be in the visual context of existing use of the West Apron by aircraft.</p> <p>In summary, the large amount of internal and intervening tree and shrub cover screens nearly all the baseline built development and ground level aircraft within Bristol Airport. The proposed built development will only potentially be visible across part of the Tall Pines Golf Club and will have a height and scale that will ensure that existing screening will remain effective. It is assessed that the magnitude of change will be negligible and the level of effect will be Minor.</p>			
<p>Magnitude of change Negligible</p>	<p>Type of effect: Permanent Adverse</p>	<p>Level of effect: Minor</p>	<p>Significance Not Significant</p>