

Appendix B – Assessment Methodology – derived principally from standard guidance texts on Landscape Character and Landscape and Visual assessment including:

- Scottish National Heritage (SNH)/Countryside Agency
 - Landscape Character Assessment 2002
 - Landscape Character Assessment Topic Paper 6: Techniques and Criteria for Judging Capacity and Sensitivity
- Landscape institute and Institute of Environmental Assessment
 - Guidelines for Landscape and Visual Impact Assessment Second Edition 2002
 - Guidelines for Landscape and Visual Impact Assessment Third Edition 2013

The following tables are general assessment criteria used to inform judgements about landscape and visual effects. The tables and criteria are used as guide only.

LANDSCAPE ASSESSMENT:

Sensitivity (combining Landscape Value/Importance and the landscape’s Susceptibility to Change)

Landscape Value

VALUE/ IMPORTANCE	TYPICAL CRITERIA	TYPICAL SCALE	TYPICAL EXAMPLES
High	High importance (or quality) and rarity. No or limited potential for substitution	International National	World Heritage Site National Park/ AONB SSSI EH Register of Parks and Gardens Grade I and II* listed buildings and their settings National recreational route or area
Medium/High	High importance (or quality) and rarity. Limited potential for substitution	National Regional Local	National Park/AONB AGLV/other local landscape designation Landscape value identified in SPD SINC/Conservation Areas Grade II listed buildings and their setting Local Wildlife sites Regional recreational route/area
Medium	Medium importance (or quality) and rarity. Limited potential for substitution	Regional Local	Undesignated but value expressed through publications Local buildings of historic interest and their settings Local recreational facilities of landscape value
Medium/Low	Low importance (or quality) or rarity	Local	Site has some value (redeeming feature/benefit to the community)
Low	Low quality, generic contemporary, degraded landscape	Local	Area of little value and identified for improvement

Other factors taken into consideration are judgements of perception including tranquillity, cultural associations and aesthetic attributes.

Susceptibility to Change of Landscape Receptors

Field Observations summarised below capture key natural, cultural and aesthetic elements contributing to or detracting from the overall landscape sensitivity.

Topography

Flat	Steep	Rolling Lowland	Hills	Broad Valley
Undulating	Vertical	Plateau	Dry Valley	Narrow Valley
Rolling	Plain	Scarp / cliffs	Deep Gorge	

Other:

Landcover and Landscape Elements

BUILDINGS	HERITAGE	FARMING	LANDCOVER	WOODLAND / TREES	HYDROLOGY	ROADS / COMMS
farm buildings	vernacular buildings	walls	designed parkland	deciduous woodland	river	road
masts / poles	country house	fences	scrub	coniferous plantation	stream	track
turbines	field systems	hedges	marsh	mixed woodland	reservoir	footpath
pylons	prehistoric ritual	fields	peat bog		dry valley	lane
industry	hill top fort / enclosure	arable	moor / heath	shelter belt	winterbourne (winter river)	railway
commercial	ecclesiastic	improved pasture	rough grassland	hedge trees	pond	pylons
settlement	monuments of war	rough grazing	water meadows	orchard	lake	communication masts
urban	hedge banks		grassland	clumps	drainage ditch	
follies	coppice		species rich grassland	isolated trees		
	other monuments					
	listed buildings					

Landscape Assessment Criteria

PATTERNS (2D):	dominant	strong	broken	weak
SCALE:	intimate	small	medium	large
TEXTURE:	smooth	textured	rough	very rough
COLOUR:	monochrome	muted	colourful	garish
COMPLEXITY:	uniform	simple	diverse	complex
REMOTENESS:	wild	remoteness	vacant	active
UNITY:	unified	interrupted	fragmented	chaotic
FORM (3D):	straight	angular	curved	sinuous
ENCLOSURE:	expansive	open	enclosed	constrained
VISUAL DYNAMIC:	sweeping	spreading	dispersed	channelled

Perception:

SECURITY:	intimate	comfortable	safe	unsettling	threatening
STIMULUS:	monotonous	bland	interesting	challenging	inspiring
TRANQUILLITY:	inaccessible	remote	vacant	peaceful	busy
PLEASURE:	unpleasant	pleasant	attractive	beautiful	

Summary

- Main features, attractors, detractors
- Key characteristics/distinctive features and why they are important:
- Rarity/replaceability
- Condition
- Perception

Landscape susceptibility to change takes account of the above considerations and is based on a professional judgement as to how vulnerable the landscape is and how able it is to accommodate change and this is described more fully in the report.

Low, Medium/Low, Medium, Medium/High, High Susceptibility to change based on the criteria recorded above.

Sensitivity is based upon a combination of landscape susceptibility to change and importance/value

Susceptibility to change	Low	Medium/Low	Medium	Medium/High	High
Importance/value					
High	M	MH	MH	H	H
Medium-High	ML	M	MH	MH	H
Medium	ML	ML	M	MH	MH
Medium-Low	L	ML	ML	M	MH
Low	L	L	ML	ML	M

Magnitude of Change for Landscape Receptors (Effect on landscape of specific proposal combined with the geographical extent)

Effect on important/key landscape features

High	Total loss or alteration to key elements/ features/ characteristics of the baseline. Introduction of elements which are totally uncharacteristic with set within the attributes of the receiving landscape.
Medium-high	Significant loss or alteration to the above, but not complete loss or alteration and/or introduction of prominent features which are generally uncharacteristic.
Medium	Partial loss or alteration to one or more key elements / features/ characteristics of the baseline and / or the introduction of prominent features, although not necessarily uncharacteristic when set within the attributes of the receiving landscape.
Medium-low	Partial to Minor loss or alteration to one or more key elements/ features/ characteristics of the baseline and/or the introduction of elements which may not be uncharacteristic with set within the attributes of the receiving landscape.
Low	Minor loss or alteration to one or more key elements/ features/ characteristics of the baseline and/or the introduction of elements which may not be uncharacteristic with set within the attributes of the receiving landscape.
Negligible	Minor loss or alteration to one or more key elements/ features/ characteristics of the baseline. And/or introduction of elements that are not uncharacteristic with the surrounding landscape.

Geographical extent of change experienced by receptors

High	The change is at a landscape level, affecting a number of landscape character areas/types
Medium-high	The change affects an entire landscape character area of type
Medium	The effects apply to a substantial part of a landscape receptor
Medium - Low	The effects are limited to a minor part of a landscape receptor
Low	Highly localised effect to a landscape receptor, likely to be limited to the site itself or its immediate surroundings

Magnitude of change

Effect on important/key landscape features	Negligible/Low	Medium/Low	Medium	Medium/High	High
Geographical extent of change experienced by receptors					
High	M	MH	MH	H	H
Medium-High	ML	M	MH	MH	H
Medium	ML	ML	M	MH	MH
Medium-Low	L	ML	ML	M	MH
Low	L	L	ML	ML	M

Negligible/Low, Medium/Low, Medium, Medium/High, High Magnitude of Change

Where the duration of effect is short lived it may be judged that the “Aggregate Magnitude” rating can be reduced.

Significance of Landscape Effects

Sensitivity	Low	Medium/Low	Medium	Medium/High	High
Magnitude of Change					
High	Moderate	Moderate/Major	Moderate/Major	Major	Major
Medium-High	Moderate/Minor	Moderate	Moderate/Major	Moderate/Major	Major
Medium	Moderate/Minor	Moderate/Minor	Moderate	Moderate/Major	Moderate/Major
Medium-Low	Minor	Moderate/Minor	Moderate/Minor	Moderate	Moderate/Major
Negligible/Low	Minor	Minor	Moderate/Minor	Moderate/Minor	Moderate

Definitions of Significance

Major adverse: The proposed development would potentially result in material changes to the landscape of the site and would be likely to be inappropriate in terms of landform, scale and pattern which cannot be effectively mitigated. The integrity of the site is compromised and the value substantially undermined.

Moderate-Major adverse: The proposed development would result in potential material changes to the landscape of the site and elements could be out of scale with the landscape and/or result in the partial loss of characteristics of the site, but whose effects may be difficult to mitigate.

Moderate adverse: The proposed development would result in potential partial changes to the landscape of the site and could be out of scale with the landscape and/or result in the partial loss of characteristics of the site, but whose effects may be mitigated.

Moderate-Minor adverse: The proposed development would result in potential partial changes to the landscape of the site that could affect its character but whose effects can be mitigated.

Minor adverse: The proposed development would have some effect on some characteristics of the site but the overall character is sustained and the value of the landscape is not materially harmed or has been mitigated.

Neutral: The proposed development would not materially alter the character of the site and its setting nor detract from the value of that landscape.

Based on the nature of the view it may be judged that these effects are positive or negative effects. Effects can be Site

based, Local, or Borough-District levels of significance.

VISUAL ASSESSMENT

Significance of Visual impact results from combining the Sensitivity of the Receptor and the Magnitude of Change

The Aggregate Sensitivity is derived from the Importance of View and the type/nature (Sensitivity) of the Visual Receptor.

Importance of view is based on professional judgement based on typical criteria set out below.

More valuable / Important	Less Valuable / Important
General Visibility	General Visibility
A combination of landform influences tree and woodland cover contribute to importance of view	A combination of landform influences tree and woodland cover constrains view
Open, clear views	Partial views or glimpses only
Site dominant within view	Site part of wider view, often set within a wider context
Site has clear influence on other sensitive feature or landmark	No features or landmarks of significance
Site visible on skyline	Site not visible on skyline
Population	Population
A public viewpoint	A viewpoint from private property
Many people experience the view e.g. at a recognised tourist view, or multiple residents	Few or single people only affected by the view
People experiencing the view over longer periods of time, for example in their homes	The view is experienced fleetingly on a road
The view relates to a heritage asset or is recognised in planning designations	The view has no associated designations or links with local heritage, or is degraded or blighted in some way
The view is noted in guidebooks, on tourist maps or occurs on nationally important trails	View occurs on a little used footpaths or other rights of way
The view is mentioned in literature, art or has other cultural associations	The view has few cultural associations, is 'generic' (e.g. contemporary commercial/industrial development)
Mitigation	Mitigation
Mitigation potential restricted	Mitigation potentially successful
Key views could be interrupted	No key views affected
Mitigation could harm local character	Mitigation could strengthen local character

More sensitive receptors	Less sensitive receptors
Focus or attention drawing to particular view during outdoor recreation (e.g. walking along footpath)	People engaged in outdoor sport/activities in which the focus is not on the surrounding landscape (football, other organised sport)
Visitors to landscape or heritage assets, where the view is likely to contribute to the visitor experience	Visitors to countryside where landscape is less likely to an important contributor to visitor experience (i.e. the focus is indoors)
Communities where views contribute to the setting enjoyed by residents (e.g. a Cotswold village)	Communities in more urban areas where landscape is not a reason why people may have chosen to live in an area
Occupiers of residential properties affected by the views	Where receptors are predominantly non-resident
Occupiers of work places where views contribute to the quality of working life e.g. landscaped business park, offices with heritage value	People at their place of work where activity is focused on work and not surroundings
Travellers on scenic road or railway routes where travelling through the landscape is part of the experience	Transient receptors in vehicles that are not likely to notice views.

Judgements Low, Medium/Low, Medium, Medium/High, High Sensitivity

Sensitivity	Low	Medium/ Low	Medium	Medium/High	High
Importance of View					
High	M	MH	MH	H	H
Medium-High	ML	M	MH	MH	H
Medium	ML	ML	M	MH	MH
Medium-Low	L	ML	ML	M	MH
Low	L	L	ML	ML	M

Aggregate Magnitude of Change for Visual Receptors derives from the degree of perceived change combined with the geographical extent over which it is apparent.

Magnitude of change experienced by receptors

High	The proposals become the dominant feature in the view and they significantly affect / change its character
Medium-high	The proposals form a significant part of the scene and affects the character of the view
Medium	The proposals form a visible and identifiable new element in the scene readily noticed by observers
Medium-low	The proposals form a visible and identifiable new element in the scene noticeable by receptors from some views
Low	The proposals only constitute a minor part of the view, possibly missed by a casual observer and not affecting the overall character of the view
Negligible/Low	Very small or no parts of the development are discernible, with very little or no effect on the scene

Extent of the area which receptors are affected

High	The change is at a landscape level, affecting receptors over a wide area of the landscape and/or from a large distance from the site e.g. experienced over the length of a long distance footpath
Medium	The change affects groups of receptors within that are within a discrete area(s), probably identifiable by description or by recognised/defined boundaries.
Low	The change is specific to a single viewpoint / receptor or only experienced within close proximity of the development site.

Medium – High or Medium – Low rating may be given where appropriate

Aggregate Magnitude is based upon a combination of the magnitude and extent of the change experience by receptors

Magnitude	Negligible/Low	Medium/ Low	Medium	Medium/High	High
Extent of Change					
High	M	MH	MH	H	H
Medium-High	ML	M	MH	MH	H
Medium	ML	ML	M	MH	MH
Medium-Low	L	ML	ML	M	MH
Low	L	L	ML	ML	M

Negligible/Low, Medium/Low, Medium, Medium/High, High Magnitude of Change

Where the duration of effect is short lived it may be judged that the “Aggregate Magnitude” rating can be reduced.

Significance of Visual Effects

Aggregate Sensitivity	Low	Medium/ Low	Medium	Medium/High	High
Aggregated Magnitude of Change					
High	Moderate	Moderate/ Major	Moderate/ Major	Major	Major
Medium-High	Moderate/Minor	Moderate	Moderate/ Major	Moderate/ Major	Major
Medium	Moderate/Minor	Moderate/Minor	Moderate	Moderate/ Major	Moderate/ Major
Medium-Low	Minor	Moderate/Minor	Moderate/Minor	Moderate	Moderate/ Major
Negligible/Low	Minor	Minor	Moderate/Minor	Moderate/Minor	Moderate

Definitions of Significance.

Major adverse: The viewpoint is very sensitive and there will be a substantive change in the view; the proposed development will dominate the view, to the detriment of existing valued views.

Moderate/Major adverse: The viewpoint is sensitive and the proposals would result in a material change in the view both of the site and its setting; the development will be highly visible and detract from existing valued views.

Moderate adverse: The viewpoint may be more or less sensitive and the degree of harm to the view will depend on the scale of change. The proposal would cause obvious deterioration to a view from a moderately sensitive receptor, or perceptible damage to a view from a more sensitive receptor.

Minor adverse: The viewpoint is usually less sensitive and the proposals have a more localised effect on the view, effecting only elements of the view.

No significant impact: The viewpoint is usually much less sensitive and the change in view is slight, with the view towards the site remaining little changed.

Based on the nature of the view it may be judged that these effects are positive or negative effects

Geographical Significance of Impact ie Site, Local, Borough-District Wide

As Landscape and Visual Impact Assessment covers a wide range of different aspects of the potential effects on an area it is often the case that the different aspects are of greater or lesser significance.

For example the changes to the physical landscape of a site may involve the loss of features which may only be really apparent within the internal or immediate site environment. While these may be very important at a site wide level they are not necessarily of any major significance to the wider local area or district.

Alternatively impacts on popular public view point or a national designated historic landscape may be of much wider district or even potentially of national significance.

Within the LVIA assessment it is helpful to be able to make relative assessments of effect such as 'Slight', 'Moderate' or 'Substantial' on the different aspects. These assessments can then be related to the site, local or wider significance as appropriate to the aspect being considered. **See Diagram below.**

SIGNIFICANCE ASSESSMENT

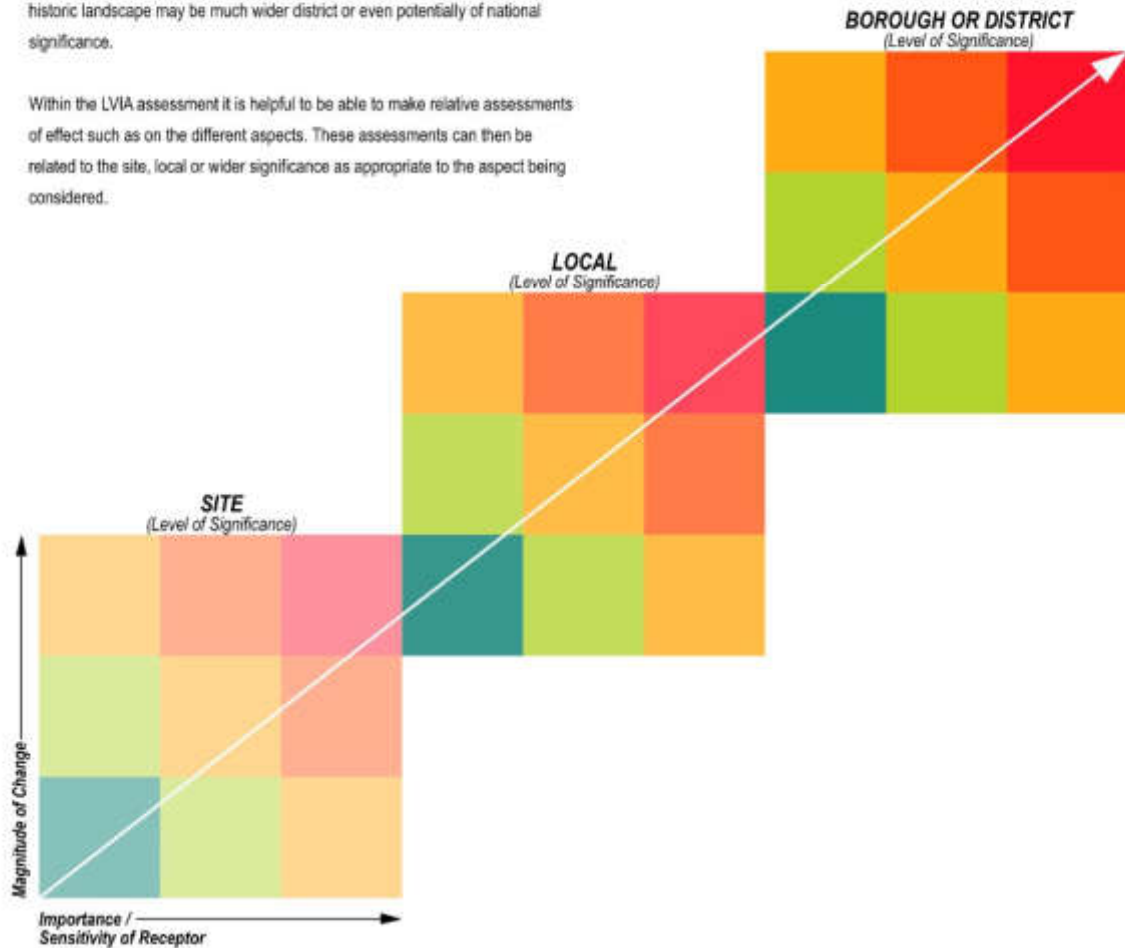
The tables below illustrate a further development of the assessment guidance to help rationalise the variations that occur between the different aspects of landscape considered in this assessment.

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For example the changes to the physical landscape of a site may involve the loss of features which may only be really apparent within the internal or immediate site environment. While these may be very important at a site wide level they are not necessarily of any major significance to the wider local area or district.

Alternatively impacts on popular public view point or a national designated historic landscape may be much wider district or even potentially of national significance.

Within the LVIA assessment it is helpful to be able to make relative assessments of effect such as on the different aspects. These assessments can then be related to the site, local or wider significance as appropriate to the aspect being considered.



SIGNIFICANCE DIAGRAM



Appendix B - Cumulative Effects - Methodology

- 1.1 In terms of the Cumulative Landscape and Visual Impact Assessment (CLVIA) the methodology used in this assessment draws on the following guidance:
- Landscape Institute Guidance for Landscape and Visual Impact Assessment 3rd Edition 2013.
 - 'Guidance. Cumulative effect of wind farms', Version 2 Revised 13.04.05, Scottish Natural Heritage; and
 - 'Guidance. Assessing the cumulative impact of onshore wind energy developments. March 2012; Scottish Natural Heritage.
- 1.2 Cumulative Landscape and Visual Impact Assessment (CLVIA) guidance has largely evolved from the assessment of onshore wind farms, however, the principle of cumulative effects remains the same regardless of the type of development.
- 1.3 The CLVIA covers the potential cumulative effects on landscape receptors and views. As with the assessment of effects of the proposed development itself, the significance of cumulative effects is determined through a combination of the sensitivity of the landscape receptor or view and the magnitude of change upon it. The sensitivity of landscape receptors and views is the same in the cumulative assessment as for the proposed development in isolation. However, the cumulative magnitude of change is assessed differently.
- 1.4 The assessment of Cumulative magnitude of change has concentrated on the effects within the site assuming all development proposed within the Masterplan with predicted mitigation is in place.
- 1.5 The cumulative magnitude of change is an expression of the degree to which landscape receptors and views will be changed by the addition of the proposed development to other developments that are operational, consented or proposed within the study area. This is dependent on a number of variables as follows:
- 1.6 This report has focussed on the effects of the proposed Experience Centre development in relation to other developments within the site itself. If the proposed development is seen in a part of the view that is not affected by another development, this will generally increase the cumulative magnitude of change as it will extend its influence into an area that is currently unaffected. Conversely, if the proposed development is seen in the context of other developments, the cumulative magnitude of change may be lower as it is not extending development to hitherto undeveloped parts of the outlook. This is particularly true where the scale and layout of the proposed development is similar to that of the other developments, as where there is a high level of integration and cohesion with an existing site, the various developments may appear as a single co-ordinated site;
- 1.7 The extent of the developed skyline. If the proposed development will add notably to the developed skyline in a view, the cumulative magnitude of change will tend to be higher, as the

nature of the skyline has a particular influence on both views and landscape receptors;

- 1.8 The number and scale of the developments seen combined or in sequence. Generally, the greater the number of visible developments, the higher the cumulative magnitude of change will be.

Combined – where the observer is able to see one or more developments from one viewpoint.

- In Combination: Where two or more developments are or would be within the observer's arc of vision at the same time without moving his/her head.
- In Succession: Where the observer has to turn his/her head to see various developments.

Sequential – Occurs when the observer has to move to another viewpoint to see the same or different developments i.e. along a road.

- Frequently sequential: Where features appear regularly and within short time lapses between instances depending on speed of travel and distance between viewpoints
- Occasionally sequential: Where longer time lapses between appearances would occur because the observer is moving very slowly and /or there are large distances between the viewpoints.

- 1.9 Furthermore, the addition of the proposed development to a view where a greater number of smaller developments are apparent will usually generate a higher cumulative magnitude of change than a view of one or two large developments as this can lead to the impression of a less co-ordinated approach;

- 1.10 The size and scale comparison between all of the proposed development. If the proposed development is of a similar scale to other visible and relevant developments, particularly those seen in closest proximity to it, the cumulative magnitude of change will generally be lower as it will have more integration with the other sites and will be less apparent as an addition to the cumulative situation;

- 1.11 The distance of the proposed development from the viewpoint or landscape receptor. As in the assessment of the site itself, the greater the distance, the lower the cumulative magnitude of change will tend to be; and

- 1.12 The magnitude of change of the proposed development in isolation as assessed in Table 1. The lower this is assessed to be, the lower the cumulative magnitude of change is likely to be. Where the proposed development itself is assessed to have a negligible magnitude of change on a landscape and visual receptor there will not be a cumulative effect as the contribution of the proposed development will equate to the 'no change' situation.

Significance of cumulative effects

- 1.13 Definitions of cumulative magnitude of change are provided within Table 6.1 to ensure that the

assessment process is transparent.

Table 6.1 – Cumulative magnitude of change	
Cumulative magnitude	Definition
High	The addition of the proposed development will make an immediately apparent contribution to the cumulative situation in a landscape receptor or view.
Medium	The addition of the proposed development makes a notable contribution to the cumulative situation, and its cumulative addition is readily apparent.
Low	The addition of the proposed development will make a minor contribution to the overall cumulative situation, and its cumulative addition is only slightly apparent.
Negligible	The addition of the proposed development will make a negligible contribution to the cumulative situation and its addition equates to a 'no change' situation.

- 1.14 The objective of the cumulative assessment is to determine whether any effects that the proposed development would have on views and landscape receptors when seen or perceived in conjunction with other existing and proposed sites will be significant or not significant.
- 1.15 A significant cumulative effect will occur where the addition of the proposed development to other existing and proposed relevant developments would result in a landscape or view that is defined by the presence of more than one major development and is characterised primarily by large scale development so that other patterns and components are no longer definitive.
- 1.16 If the proposed development itself is assessed to have a significant effect on a landscape or visual receptor, it does not necessarily follow that the cumulative effect will also be significant.
- 1.17 The cumulative effects of any development in landscape and visual terms are important as the impact on the long-term integrity and sustainability of the landscape depends on the retention of its inherent qualities. The gradual erosion of these qualities due to the increasing numbers or frequency of developments, or indeed the expansion of existing developments can influence the quality and character of a landscape.
- 1.18 As to other developments within the wider area we have not undertaken a search of other planning applications and have no knowledge of other possible developments in the area. Should other applications for development come forward within the site or elsewhere, then these would have to be taken on their own merits.

Introduction & Summary

Description

Opportunities

Key facts
and dataLandscape
change

Analysis

BICESTER MOTION

BRAND EXPERIENCE LVIA: APPENDIX C

Key characteristics

- Low-lying clay-based flood plains encircle the Midvale Ridge. Superficial deposits, including alluvium and gravel terraces, spread over 40 per cent of the area, creating gently undulating topography. The Upper Jurassic and Cretaceous clays and the wet valley bottoms give rise to enclosed pasture, contrasting with the more settled, open, arable lands of the gravel.
- The large river system of the River Thames drains the Vales, their headwaters flowing off the Cotswolds to the north or emitting from the springline along the Chilterns and Downs escarpments. Where mineral extraction takes place, pits naturally fill with water, and limestone gravels from the Cotswolds give rise to marl formation. There are a high number of nationally important geological sites.
- Woodland cover is low at only about 3 per cent, but hedges, hedgerow trees and field trees are frequent. Watercourses are often marked by lines of willows and, particularly in the Aylesbury Vale and Cotswold Water Park, native black poplar.
- Wet ground conditions and heavy clay soils discourage cultivation in many places, giving rise to livestock farming. Fields are regular and hedged, except near the Cotswolds, where there can be stone walls. The Vale of White Horse is made distinct by large arable fields, and there are relict orchards on the Greensand.
- In the river corridors, grazed pasture dominates, with limited areas of historic wetland habitats including wet woodland, fen, reedbed and flood meadow. There are two areas of flood meadow designated for their importance at a European level as Special Areas of Conservation (SAC). There are also rich and extensive ditch systems.
- Gravel extraction has left a legacy of geological exposures, numerous waterbodies and, at the Cotswold Water Park, a nationally important complex of marl lakes.
- Wetland habitat attracts regionally important numbers of birds including snipe, redshank, curlew and lapwing and wintering wildfowl such as pochard. Snake's head fritillary thrives in the internationally important meadows. The area also supports typical farmland wildlife such as brown hare, bats, barn owl, tree sparrow and skylark.
- Blenheim Palace World Heritage Site, including its Capability Brown landscape, is the finest of many examples of historic parkland in this NCA. There are many heritage features, including nationally important survivals of ridge and furrow, Roman roads, deserted medieval villages and historic bridges.
- Brick and tile from local clays, timber and thatch are traditional building materials across the area, combined with limestone near the Cotswolds and occasional clunch and wichert near the Chilterns.
- Settlement is sparse on flood plains, apart from at river crossings, where there can be large towns, such as Abingdon. Aylesbury and Bicester are major urban centres, and the outer suburbs of Oxford and Swindon spread into this NCA. Market towns and villages are strung along the springlines of the Chilterns and Downs. Major routes include mainline rail, canals, a network of roads including the M40 and M4 and The Ridgeway and Thames Path National Trails.