M3 Junction 9 Improvement

Scheme Number: TR010055

6.1 Environmental Statement Chapter 7 Landscape and Visual

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6.1 ENVIRONMENTAL STATEMENT - CHAPTER 7: LANDSCAPE AND VISUAL

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7 Landscape and Visual

7.1 Introduction

7.1.1 This chapter presents the findings of the assessment of the construction and operation (including maintenance where relevant) of the M3 Junction 9 Improvement Scheme (hereafter referred to as the Scheme) on landscape and visual amenity. This chapter outlines legislative, policy framework and guidance, describes the assessment methodology, study area, baseline conditions, an overview of potential impacts, mitigation measures, likely residual effects, monitoring and a summary. This chapter has been prepared by a competent expert; further details are provided in **Appendix 1.1 (Competent Expert Evidence)** of the **ES (Document Reference 6.3).**

7.1.2 This chapter should be read in conjunction with **Environmental Statement (ES) Figures 7.1 – 7.14 (Document Reference 6.2)** and **Appendices 7.1 to 7.7** of the **ES** (**Document Reference 6.3**) which comprise:

- ES Appendix 7.1: Landscape and visual methodology
- ES Appendix 7.2: Landscape character baseline
- ES Appendix 7.3: Schedule of landscape effects
- ES Appendix 7.4: Schedule of visual effects
- ES Appendix 7.5: Preliminary Arboricultural Impact Assessment (AIA)
- ES Appendix 7.6: Outline Landscape and Ecology Management Plan (OLEMP)
- ES Appendix 7.7: Technical Note Lighting Assessment of Gantry Signage

7.1.3 This chapter should be read in parallel to **Chapter 6 (Cultural Heritage), Chapter 8 (Biodiversity), Chapter 11 (Noise and Vibration), Chapter 12 (Population and Human Health)** and **Chapter 15 (Cumulative Effects)** of the **ES (Document Reference 6.1)**.

7.2 Consultation

7.2.1 Consultation and engagement has informed the Landscape and Visual Impact Assessment (LVIA). Comments and responses to the Scoping Opinion received in November 2020 are provided in **Appendix 4.2 (Scoping Comments and Responses)** of the **ES (Document Reference 6.3)** and comments and responses received during statutory consultation between May and June 2021 are provided in **Appendix K** of the **Consultation Report (Document Reference 5.1)**.

7.2.2 Consultation and engagement has been undertaken between the applicant and key landscape stakeholders (Winchester City Council, Hampshire County Council, and the South Downs National Park Authority). Key discussions are summarised in **Table 7.1**. In addition, regular meetings have been held with the South Downs National Park Authority following statutory consultation. A full record of the meetings is provided in the **Consultation Report (Document Reference 5.1)**.

Table 7.1: Consultation undertaken relevant to landscape and visual

Reference	Comment	Response
Consultation on View Locations (VL) and Accurate Visual Representations		
9 October 2020 Email sent to each consultee group individually (Hampshire County Council, Winchester City Council and South Downs National Park Authority), identifying 18 preliminary VLs for the LVIA, as shown on **Figure 7.4 (View Locations)** of the **ES (Document Reference 6.3)**. Responses received and the Scheme response are provided below:		
12/10/2020 (Hampshire County Council – Landscape Architect)	Proposed VL 4 should be moved slightly to capture newly created area of public open space at Lea View.	The proposed VL 4 has been updated to reflect the request to account for public open space at Lea View.
	Concern over part of the Itchen Way Public Right of Way (PRoW) in between the A34 road embankment and the wetland of the Moors. Hampshire County Council believe this path needs '*some serious'* (Winchester City Council emphasis) upgrading as part of the works. Hampshire County Council believe the inevitable loss of the roadside planting will open it up to extensive views of the road. Hampshire County Council	Wider connectivity of the Itchen Way has been considered as part of the walking, cycling and horse-riding route of the proposed Scheme, however the existing routes are not part of our proposals. The design has considered the potential loss of vegetation and where reasonably practicable has avoided removing existing vegetation. Where losses are likely new planting has been proposed adjacent to new elements of road infrastructure to provide visual screening and green infrastructure connectivity, as shown on the **Figure 2.3 (Environmental Masterplan)** of the **ES (Document Reference 6.2)**.

Reference	Comment	Response
	believe this area will need some careful design as the path appears to be well used.	
16/10/2020 (South Downs National Park Authority – Major Projects Lead)	South Downs National Park Authority provided relevant draft sections of *Winchester M3 Mitigation Strategy (2019)* covering baseline character assessment for the area surrounding interface between South Downs National Park and Winchester.	*The draft Winchester M3 Mitigation Strategy (2019)* has been used to assist in designing appropriate environmental mitigation into the Scheme, as shown on **Figure 2.3 (Environmental Masterplan)** of the **ES (Document Reference 6.2)**.
19/10/2020 (Winchester City Council – Principal Landscape Architect)	Request for the following VLs to be assessed:	Response as follows:
	Layby on Morestead Road – SU499274 South Downs Way footbridge – SU496289 Chilcomb Sports Ground – SU502288. This is not Hampshire County Council as mapping states but belongs to Winchester City Council now A31 – SU500292	Layby on Morestead Road – Accepted. Added as VL 19 South Downs Way footbridge – Accepted. Added as VL 20 Chilcomb Sports Ground – Accepted. Added as VL 21 A31 – Accepted. Added as VL22
23/11/2020 South Downs National Park Authority	Email received from South Downs National Park Authority requesting additional VLs / amendments following previous consultation.	Responses as follows: VL7 – Suggestion not accepted. Location chosen due to break in vegetation in mid ground looking across the undulating valley towards the M3.

Reference	Comment	Response
	Comments received on VLs as follows: VL 7, Ensure the location of this viewpoint is from the open space/footpath access within the area of biodiversity enhancement associated with Barton Farm development. VL 8, The main footpath to the northwest of the viewpoint has open views looking north. VL 10, There are two viewpoints marked as No 10. Both appear to be from public rights of way. However, Whiteshute Lane is also an area of open access land and there are open elevated views from this publicly accessible location. VL 12, There are two viewpoints marked as No. 12. Assume that one is from the main road approaching the junction and the other from residential receptors. Suggest both are retained and renumbered. VL 13, Ensure viewpoint is located at gap in hedgerow.	VL 8 – Accepted. Relocated to PRoW footpath as requested with open views to the north VL 10 – A review of VL 10 has been undertaken to ensure the final location represents the worst-case scenario within the open access land. This was communicated to the South Downs National Park during a meeting on the 11.08.21. VL 12 - within the residential area (Winnall Manor Road) on site survey no intervisibility from the site and VL discounted VL 13 - is located at a break in the hedge along Long Lane Additional request for 12 new VLs. Actioned as follows: VL A & B discounted as represented by VL 24 VL C. Requested for area for excess spoil deposition which is now excluded from the scheme. Limited intervisibility with wider Scheme therefore not taken forward. VL D. Requested for area for excess spoil deposition which is now excluded from the scheme. Limited intervisibility with wider Scheme therefore not taken forward. VL E. VL 23 added from this receptor. VL F. Requested for area for excess spoil deposition which is now excluded from the scheme. Limited intervisibility with wider Scheme therefore not taken forward.

Reference	Comment	Response
		VL G. limited intervisibility not taken forward VL H. VL 21 added which is representative of this location VL I. VL 20 added which is representative of this location VL J. VL 22 added which is representative of this location VL K. limited intervisibility not taken forward
21/01/2021 South Downs National Park Authority, Winchester City Council, and Hampshire County Council (email)	Request for update	Email to consultee groups (South Downs National Park Authority, Winchester City Council and Hampshire County Council) providing additional information on the Zone of Theoretical Visibility (ZTV) and the 24. Clarity / rationale provided for the VL, and confirmation that additional views VL C, VL D, VL F, VL G and VL K have not been included based on the results of the preliminary ZTV mapping and ground truthing undertaken in October 2020. Email also included suggested locations for the Type 4 Accurate Visual Representations (AVR) verifiable views as VL 1, VL 3, VL 7, VL 9, VL 12, VL 13 and VL 14.
18/02/2021 South Downs National Park Authority	Request for ZTV information to confirm discount of suggested views VL C, VL D, VL F, VL G and VL K. Agreement on omission of views VL A, VL B, VL E, VL H, VL J, and VL L, provided.	VLs, C, D, F, G, and K are shown on **Figure 7.7 (ZTV of the Scheme (traffic, no traffic and gantries) with View Locations)** of the **ES (Document Reference 6.2)** to show the location in relation the visibility of the Scheme.
02/02/2021	Following email to consultee requesting confirmation of night-	Further information was provided that the school [St Swithun's] is both a day and boarding school

Reference	Comment	Response
Winchester City Council – Night-time VLs	time VLs the consultee responded by questioning viewpoint 16.	therefore there is evening and night time use. The consultee considered viewpoint 16 should be retained but agreed the others could be scoped out.
03/02/2021 Hampshire County Council – Night-time VLs	Following email to consultee requesting confirmation of night-time VLs the consultee responded by agreeing with the approach but requesting viewpoint 16 be included as per comments from Winchester City Council.	VL 16 has been included to the list of locations for the night-time view assessment.
18/02/2021 South Downs National Park Authority – Night-time VLs	Following email to consultee requesting confirmation of night-time VLs the consultee responded by agreeing with the approach but requesting viewpoint 16 be included as per comments from Winchester City Council and Hampshire County Council.	VL 16 has been included to the list of locations for the night-time view assessment.
Additional View Locations (VL) and Accurate Visual Representations resulting from the without all lane running (ALR) project.		
24/05/2022 Email sent to Hampshire County Council, Winchester City Council and South Downs National Park Authority, and project update provided to South Downs National Park Authority on 25 May 2022 and Winchester City Council on 26 May 2022, identifying position that no additional view locations or accurate visual representations required for the LVIA, as a result of additional gantry Responses received and the Scheme responses are provided below:		

Reference	Comment	Response
26/05/2022 South Downs National Park Authority	During project meeting general principle of no additional view location of visualisations required, however a further location (VL 19b) queried (located west of VL 19 within open access land).	Further rationale set out to the South Downs National Park Authority in email as to why VL 19b not required
01/06/2022 South Downs National Park Authority	Email provided further rationale from South Downs National Park requesting VL 19b included to replace VL 19.	Reply to South Downs National Park Authority on 13 June 2022 setting out that VL 19b will be included as an extra location. Acceptance received from South Downs National Park Authority on 14 June 2022.
26/05/2022 Winchester City Council	Conversation with Landscape Officer on 26 May 2022 following issue of email. Acceptance of position of no additional view locations / visualisations	Noted. No further action
30/05/2022 Hampshire County Council	Confirmation from landscape officer that all landscape assessment overseeing / commenting delegated to Winchester City Council and the South Downs National Park Authority. No further comment .	Noted. No further action
Other Consultation		
South Downs National Park Authority Consultation		
11/09/2021	Updates provided to queries raised at Section 42 response in relation to the LVIA.	**Figure 2.3 (Environmental Masterplan)** of the **ES (Document Reference 6.2)** updated to refine proposals taking

Reference	Comment	Response
South Downs National Park Authority Presentation to South Downs National Park Authority to discuss updates to the Environmental Masterplan and mitigation strategy following Section 42(a) consultation responses.	Items discussed included, tree removals, consideration of impacts on tranquillity, production of a landscape strategy, landscape sensitivity and topography, VL 10, and approach to lighting assessment. South Downs National Park Authority provided specific comment in relation to the landscape design requesting further review of the opportunity for additional false cuttings, consideration of the user experience, and design rationale on the attenuation features.	on board feedback received during the meeting. This included revisiting earthwork proposals to maximise visual screening, update of the bridleway on the Eastern slopes to provide a 1(v) in 20(h) gradient and an accessible route, and review of the user experience through visibility analysis on the proposed bridleway.
22/09/2021 South Downs National Park Authority Presentation to South Downs National Park Authority to discuss updates to the Environmental Masterplan following 11 August presentation	Update provided in relation to request raised at previous meeting. Specific comments in relation to landscape design received related to request to take away reporting and review, arrange for a site visit, and provide further detail on the design of the attenuation ponds.	Additional information setting out the justification for the attenuation feature was issued to the South Downs National Park Authority on the 21 October 2021. In addition, a site visit was arranged for the 22 October to allow the opportunity to discuss matters on site.
22/10/2021	A site visit was arranged to allow the route of the proposed	The site visit allowed justification to be provided in context of the surrounding landscape with regard

Reference	Comment	Response
South Downs National Park Authority Stakeholder Site Visit	bridleway on the eastern slopes and the attenuation ponds adjacent to the A33 roundabout, to be visited. A range of matters were discussed as detailed in the **Consultation Report (Document Reference 5.1)**.	to the position of the bridleway, construction compound and attenuation features.

7.3 Legislative, policy framework and guidance

7.3.1 This assessment has been undertaken considering current legislation, together with national, regional and local plans and policies. A list is provided below, and further detail regarding National Policy can be found in the **National Policy Statement for National Networks Accordance Table (Document Reference 7.2):**

- European Landscape Convention 2006
- National Parks and Access to the Countryside Act 1949
- Wildlife and Countryside Act 1981
- Countryside and Rights of Way Act 2000
- Natural Environment and Rural Communities Act 2006
- Hedgerow Regulations 1997
- National Policy Statement for National Networks 2014
- National Planning Policy Framework (NPPF) 2021
- Winchester District Local Plan Part 1 – Joint Core Strategy 2013
- Winchester District Local Plan Part 2 – Development Management and Site Allocations 2017
- South Downs Local Plan 2019
- Hampshire Minerals and Waste Plan 2013
- Winchester District Draft Local Plan 2018 -2038 (emerging)

7.3.2 In addition to the legislation and national and local planning policies listed above, this assessment has also been carried out in accordance with the following professional standards and guidance:

- Design Manual for Roads and Bridges (DMRB) LA 107 Landscape and Visual Effects (Highways England, 2020)
- Guidelines for Landscape and Visual Impact Assessment Revision 3 (Landscape Institute and Institute of Environmental Management and Assessment, 2013) (GLVIA3)
- GLVIA3 Statement of Clarification 1/13 (Landscape Institute, 2013)
- Technical Guidance Note 06/19: Visual Representation of Development Proposals (Landscape Institute, 2019)
- Technical Guidance Note 02/21: Assessing landscape value outside national designations (Landscape Institute, 2021)
- Guidance Notes for the Reduction of Obtrusive Light – Guidance Note 01/21 (Institution of Lighting Professionals, 2021)
- South Downs National Park Dark Skies: Technical Advice Note Version 2 (South Downs National Park, 2021)
- Institute of Lighting Professionals. Professional Lighting Guide 04: Guidance on Undertaking Environmental Lighting Impact Assessments (2013) (ILP PLG04)
- Highways England (2018) The Road to Good Design
- DMRB LD 117 Landscape design (Highways England, 2020)
- Landscape Institute (2020) Technical Guidance Note 04/2020: Infrastructure

7.4 Assessment methodology

7.4.1 The assessment follows the general approach described in **Chapter 4 (Environmental Assessment Methodology)** of the **ES (Document Reference 6.1)**.

7.4.2 This section provides topic-specific information regarding the methodology used for establishing the baseline, and the methods used for the assessments. It should be read alongside **Appendix 7.1 (Methodology)** of the **ES (Document Reference 6.3)** which provides further detail on the methodology and a technical methodology with further detail on the methodology for collection of baseline photography, production of ZTV analyses, and production of accurate visual representations.

7.4.3 The methodology for the assessment of landscape and visual effects is in accordance with DMRB LA 107 Landscape and Visual Effects (Highways England, 2020) with reference to *GLVIA3 (Landscape Institute and IEMA, 2013)* and other relevant published guidance where appropriate.

7.4.4 DMRB LA 107 Landscape and Visual Effects (Highways England, 2020) states *'Environmental assessments must, in accordance with Annex IV of the EIA Directive 2014/52/EU EIA Directive, identify, describe and assess the likely significant effects of the Scheme on the landscape* (*i.e., the direct and indirect change to the landscape character, the landscape quality/condition, and the visual amenity and visual receptors*)*.'*

Scope of the assessment

7.4.5 This chapter presents an assessment of effects upon landscape and visual amenity. Landscape and visual effects are related but distinct topics, so are considered and assessed separately.

7.4.6 Effects on the landscape arise from a development causing direct changes to the physical elements of the landscape, affecting its features, character and quality, and more widely, from indirect effects of the development on the character and quality of the surrounding landscape and townscape.

7.4.7 The assessment of a landscape (including townscape) considers the character as an entity in its own right, and the distinct and recognisable features and elements (the 'fabric' or features of the site, which contribute to character). The assessment also considers landscape designations. An evaluation of the character, features and designations is made to identify the landscape qualities, values and sensitivities, which could potentially be affected by the Scheme.

7.4.8 A tree survey has been undertaken as reported in **Appendix 7.5 (Preliminary AIA)** of the **ES (Document Reference 6.3)**.

7.4.9 The landscape assessment includes consideration of the published local landscape character studies within the defined study area (identified in **Section 7.5** of this chapter). The Scheme specific landscape character includes details of the land within the Scheme's Application Boundary and its immediate setting, and this does not extend to the full extent of the study area.

7.4.10 The assessment of effects on visual amenity assesses effects on views at the agreed VLs, these being representative of the visual baseline. The visual assessment tables **Appendix 7.4** (**Schedule of Visual Effects**) **of the ES** (**Document Reference 6.3**) also reference other relevant individual and groups of visual receptors within the defined study area.

7.4.11 In line with DMRB LA 107 Landscape and Visual Effects (Highways England, 2020) and GLVIA3 (Landscape Institute and IEMA, 2013), landscape and visual effects are assessed through professional judgements on the sensitivity of landscape elements, landscape character and visual receptors as represented

by VL's, combined with the predicted magnitude and nature of effect arising from the Scheme.

7.4.12 DMRB LA 107 Landscape and Visual Effects (Highways England, 2020) states within paragraph 2.9 that *'Qualitative judgements used in landscape impact assessment and visual impact assessment shall be clear and transparent so as the reasoning applied at different stages can be understood'.*

7.4.13 DMRB LA 107 Landscape and visual effects (National Highways, 2020) states within paragraph 3.1 that *'LVIA shall identify and assess the significance of and the effects of change of a Scheme on the landscape as a resource, and people's views and visual amenity as part of the iterative steps in assessment and design development, (GLVIA3)'*.

7.4.14 A lighting assessment for the proposed gantry mounted illuminated signage has been undertaken in accordance with South Downs National Park Authority's Dark Skies: Technical Advice Note Version 2 as reported in **Appendix 7.7 (Technical Note: Lighting Assessment of Gantry Signage)** of the **ES (Document Reference 6.3)**.

7.4.15 The assessment considers construction and operational effects as follows:

- Construction effects will consider the worst-case situation whereby construction activity is at its peak and is assumed to occur within a short-term period of time (three years).

- Operational effects (year 1) considers a winter's day in the year that the Scheme would open to traffic and fully operational (i.e. with earthworks in place but before any planting mitigation becomes effective) with all construction activity completed. This reflects the worst-case scenario in which the Scheme is in operation and most visible.

- Operational effects (year 15) considers a summer's day 15 years after opening (i.e. when the planting mitigation measures can be assumed to be substantially effective). This is usually a reflection of the near fully mitigated scenario under normal conditions.

7.4.16 The process assesses the adverse and beneficial effects and significance of change arising from the Scheme on the landscape as an environmental resource in its own right and on people's views and visual amenity. Each likely effect is identified individually, and its significance assessed.

7.4.17 In summary the landscape, and visual effects have been assessed as follows:

- Landscape (including character, landscape features and designations), at the national, local and site scales.

- Visual amenity, as represented by people's views. This is a separate but interrelated subject in which an assessment is performed of the visual

experience of people who live nearby, work in the area, or who visit the area and for people who experience the countryside for recreational purposes.

Study area and baseline approach

7.4.18 The study area and extent of baseline data gathering is defined within **Section 7.5** and **Section 7.6** of this Chapter. The study area has been informed through consultation with stakeholders, visibility analysis and site survey.

7.4.19 The study area allows issues of landscape and visual effects on the 'setting' of the South Downs National Park and the townscape of Winchester to be considered and provides a thorough baseline understanding of the relationship between the existing M3 motorway and main roads, the River Itchen valley and the surrounding topography and landscape.

7.4.20 The approach to identifying the study area is considered to be in line with the guidance in Paragraph 3.13.1 of the DMRB LA 104 Environmental Assessment and Monitoring Rev 1 (Highways England, August 2020), which states that:

The study area for an assessment should reflect the project and the surrounding environment over which effects are reasonably be thought to occur, taking into account cumulative effects."

Zone of theoretical visibility (ZTV)

7.4.21 A range of ZTV analyses have been prepared to support the assessment.

7.4.22 The ZTV analyses prepared for the Scheme consider both a Digital Terrain Model (DTM) as a worst-case analysis and a Digital Surface Model (DSM). The DTM analysis **Figure 7.5 (Comparative ZTV (comparing existing M3, A33 and A34 with Scheme))** of the **ES (Document Reference 6.2)** presents a worst-case scenario, since it only takes into account the screening effects of topography. This has been presented alongside the existing visibility of the M3, A33 and A34 corridors within the Application Boundary, as a comparative analysis between the theoretical existing and proposed visibility of the Scheme.

7.4.23 The DSM analyses **Figures 7.6-7.10** of the **ES (Document Reference 6.2)** represents a realistic worst case, as these also consider other selected features influencing the extent of visibility, for example, landform, vegetation and built form. The analyses illustrate the theoretical extent to which the Scheme (its horizontal and vertical alignment), vehicles travelling along it (assuming a 4.5m height for HGV's), Variable Message Signs (VMS) and portal gantries, are likely to be visible from within the surrounding landscape.

7.4.24 Finally, a DSM analysis **Figure 7.11 (ZTV of the Scheme (with mitigation))** of the **ES (Document Reference 6.2)** which represents the extent of visibility once the proposed landscape mitigation (woodland, and scrubland as presented on the **Figure 2.3 (Environmental Masterplan)** of the **ES (Document Reference 6.2)** has successfully established to provide its intended screening function.

Approach to design, mitigation and enhancement measures

7.4.25 Measures proposed for preventing/avoiding, reducing, offsetting or compensating for significant adverse landscape or visual effects are described. Mitigation measures comprise:

- Embedded mitigation – measures forming part of the design of the scheme which are fixed and without which the scheme cannot be delivered. They are integrated into a project for the purpose of minimising environmental effects
- Essential mitigation – mitigation critical for the delivery of a project which can be acquired through statutory powers

7.4.26 Embedded and essential mitigation measures (including standard construction and operational management practices) are summarised in **Chapter 4 (Environmental Assessment Methodology)** of the **ES (Document Reference 6.1)**, with additional measures relevant to the Landscape and Visual set out within this chapter.

Assessment approach - sensitivity of resource

Landscape

7.4.27 The assessment of landscape receptor sensitivity combines judgements on the value attributed to the landscape receptor and the 'susceptibility to change' of the receptor to the specific type of development proposed.

Value

7.4.28 DMRB LA 107 Revision 2 Landscape and Visual Effects (Highways England, 2020) defines landscape value as *'Relative value or importance of a landscape's quality, special qualities including perceptual aspects such as scenic beauty, tranquillity, or wildness, cultural associations or other conservation issues.*' For landscape, this can be broadly described as:

- Landscapes recognised and valued for their quality (including scenic), conservation interests, recreational value, and/or perceptual qualities (tranquillity), cultural associations, natural heritage, associations between people and place, and spatial function.
- Key characteristics and features considering their rarity and representativeness, which may be recognised in published landscape character assessments.
- Landscape quality (condition): the degree to which the landscape is intact and legible

7.4.29 An example of how value can be described for each element of the continuum of negligible to very high is provided in **Table 7.2** for landscape receptors.

Table 7.2: Defining landscape value

Level of value	Typical criteria description
Very High	■ Designations and/or conservation interests: international or national importance ■ Key characteristics and features: features which are dominant within the landscape and are fundamental to defining the distinct landscape character or special qualities of an area ■ Important characteristics and features recognised as forming intrinsic part of international / national designated landscapes, and / or landscape which is recognised for its special qualities, natural beauty or cultural value through national or international designation and protection ■ Distinctive individual or rare landscape features recognised as contributing to special qualities or cultural value through designation and protection. Landscape character that has a clear sense of place which is of national or international importance ■ Landscape condition: very well-defined landscape structure with strong pattern and intact features, recognised as being part of the landscape's special qualities and natural beauty ■ Very limited detractors or uncharacteristic features or elements present ■ Landscape which makes an important contribution to a national or international landscape designation and its setting, and / or a designated heritage asset / character area or settlement
High	■ Designations and/or conservation interests: national/regional importance ■ Key characteristics and features: features which are dominant within the landscape and are fundamental to defining the distinct landscape character of an area ■ Important characteristics and features recognised as forming intrinsic part of nationally and regionally designated landscapes ■ Distinctive individual or rare features. Landscape character that has a clear sense of place ■ Landscape condition: distinct landscape structure with strong pattern and some intact features ■ Few detractors or uncharacteristic features or elements present ■ Landscape which contributes to a national landscape designation or its setting and / or a designated heritage asset /

Level of value	Typical criteria description
	character area or settlement, or forms part of the Green Infrastructure Network
Medium	■ Designations and/or conservation interests: local importance (e.g. Conservation Areas, Special Landscape Areas/Features) ■ Key characteristics and features: locally important and notable features that contribute to the overall character of an area ■ Features and elements protected by local policy ■ Landscape condition: landscape exhibits recognisable structure and characteristic patterns ■ Some detracting features present
Low	■ Designations and/or conservation interests: no designation ■ Key characteristics and features: features or elements that are uncharacteristic and detract from the landscape character of an area ■ Landscape condition: degraded landscape structure with fragmented pattern and poor legibility of character ■ Absence of distinctive individual or rare features. Landscape character that has a poor sense of place ■ Detracting features notable within the landscape
Negligible	■ Designations and/or conservation interests: no designation ■ Key characteristics and features: features or elements that detract from the landscape character of an area ■ Landscape condition: very degraded landscape structure with fragmented pattern and poor legibility of character ■ Absence of distinctive individual or rare features. Landscape character that has a poor sense of place ■ Detracting features defining characteristic within the landscape

Susceptibility to change

7.4.30 DMRB LA 107 Landscape and Visual Effects (Highways England, 2020) defines landscape receptors' susceptibility as *'the ability of a defined landscape receptor to accommodate the specific proposed change without negative consequences'*. This judgement is made on the basis of the specific Scheme details following the definition of the baseline landscape value and alongside the judgement on magnitude and nature of effects.

7.4.31 An example of how susceptibility can be described through the continuum of negligible to very high is provided in **Table 7.3**.

Table 7.3: Landscape – defining receptor susceptibility to change

Degree of susceptibility to specific change	Typical criteria description
Very High	Very limited or no ability to accommodate the Scheme without substantial loss/gain or undue consequences for the maintenance of the baseline landscape and/or the achievement of landscape planning policies and strategies. Attributes that make up the character of the landscape offer limited opportunities for accommodating the Scheme.
High	Limited ability to accommodate the Scheme without substantial loss/gain or undue consequences for the maintenance of the baseline landscape and/or the achievement of landscape planning policies and strategies.
Medium	Some ability to accommodate the Scheme without undue consequences for the maintenance of the baseline landscape and/or the achievement of landscape planning policies and strategies.
Low	Ability to accommodate the Scheme without substantial loss or gain or undue consequences for the maintenance of the baseline landscape and/or the achievement of landscape planning policies and strategies.
Negligible	Ability to accommodate the Scheme without any loss or gain or consequences for the maintenance of the baseline landscape and/or the achievement of landscape planning policies and strategies. Attributes that make up the character of the landscape are more resilient to being changed by the Scheme.

Overall sensitivity

7.4.32 Landscape sensitivity depends on the character of the receiving landscape, the nature of the Scheme and the type of change. It is derived from the evaluation of value and the susceptibility (of the landscape resource) to accommodate changes arising from the Scheme.

7.4.33 An overall assessment of sensitivity was made for each landscape receptor, based on a combined judgement of the above criteria, using the typical scales set out in **Table 7.4**. Descriptions are taken from Table 3.22 DMRB LA107 Landscape and Visual Effects (Highways England, 2020).

Table 7.4: Landscape sensitivity

Landscape sensitivity (susceptibility and value) of receptor/resource	Typical Descriptions
Very High	Landscapes of very high international/national importance and rarity or value with no or very limited ability to accommodate change without substantial loss/gain (i.e. national parks, internationally acclaimed landscapes - UNESCO World Heritage Sites).
High	Landscapes of high national importance containing distinctive features/elements with limited ability to accommodate change without incurring substantial loss/gain (i.e. designated areas, areas of strong sense of place - registered parks and gardens, country parks).
Medium	Landscapes of local or regional recognition of importance able to accommodate some change (i.e. features worthy of conservation, some sense of place or value through use/perception).
Low	Local landscape areas or receptors of low to medium importance with ability to accommodate change (i.e. non-designated or designated areas of local recognition or areas of little sense of place).
Negligible	Landscapes of very low importance and rarity able to accommodate change.

Visual Amenity

7.4.34 Visual sensitivity depends on the location, context and expectations of the viewer (e.g., the occupier of a residential property with open views would be more sensitive, whereas an office worker within an urban context would be less so). The identification of various categories of visual receptor (viewer) and the judged visual sensitivity of each forms part of the visual baseline, against which the change in the view brought about by the Scheme can be assessed.

Value

7.4.35 The assessment of visual receptor's sensitivity combines judgements on the value attributed to the view / visual amenity and the 'susceptibility to change' of the receptor to the specific type of development proposed.

7.4.36 The value assigned to views and visual amenity has regard to a number of factors, including:

- Recognition through planning policy or heritage assets
- The popularity of the view, its appearance in guidebooks, literature or art, on tourist maps, and the facilities provided to enable enjoyment of the view

7.4.37 The criteria for the assessment of the value of views is summarised **Table 7.5**.

Table 7.5: Visual – defining visual receptor value

Level of value	Typical criteria descriptors
Very High	Views from landscape / viewpoints of very important national/international landscapes, cultural/historical sites or highly popular visitor attractions where the view forms an important part of the experience.
High	Views from landscapes/viewpoints of national importance, or popular visitor attractions where the view forms an important part of the experience, or with important cultural associations.
Moderate	Views from landscapes/viewpoints of regional/district importance or moderately popular visitor attractions where the view forms part of the experience, or with local cultural associations.
Low	Views from landscapes/viewpoints with no designations, not particularly popular as a viewpoint and with minimal or no cultural associations.
Negligible	Views from landscapes/viewpoints of no importance with no variety or distinctiveness.

Susceptibility to change

7.4.38 The susceptibility of people to changes in views is a function of:

- The occupation or activity of the viewer at a given location

- The extent, therefore, to which a person's attention or interest may be focussed on a particular view and the visual amenity experienced

7.4.39 For the purposes of the visual impact assessment, the LVIA focuses on a visual receptor's ability to accommodate changes as a result of the construction and operation of road infrastructure in their view or visual resource. These changes include new and realigned carriageways, junctions and highways infrastructure (such as signage), loss of existing features, or changes in the composition of the view or visual resource, such as through the loss of woodland and hedgerows, changes in topography or inclusion of new features.

7.4.40 Visual receptors most susceptible to change include residents or communities where views contribute to the landscape setting enjoyed by residents in the area, people engaging in outdoor recreation (such as users of PRoW) whose attention or interest is likely to be focused on the landscape and on particular views, and visitors to heritage assets, or other attractions where views of the surrounding are an important contributor to the experience.

7.4.41 Visual receptors with lower susceptibility to change include travellers on roads, rail and other transport routes, people engaged in outdoor sport or recreation which does not involve or depend upon appreciation of views of the landscape, and people at their place of work.

Overall sensitivity

7.4.42 For each visual receptor, a professional judgement is made for the sensitivity considering the susceptibility to change and the value attached to the view. Typical descriptors for each level are included in **Table 7.6**. Descriptions are taken from Table 3.41 DMRB LA 107 Landscape and Visual Effects (Highways England, 2020).

Table 7.6: Visual – criteria used to define visual sensitivities

Visual sensitivity (susceptibility and value) of receptor/resource	Typical descriptions
Very High	■ Static views from and of major tourist attractions. ■ Views from and of very important national/international landscapes, cultural/historical sites (e.g. National Parks, UNESCO World Heritage sites). ■ Receptors engaged in specific activities for enjoyment of dark skies.

Visual sensitivity (susceptibility and value) of receptor/resource	Typical descriptions
High	■ Views by users of nationally important PRoW / recreational trails (e.g. national trails, long distance footpaths). ■ Views by users of public open spaces for enjoyment of the countryside (e.g. country parks). ■ Static views from dense residential areas, longer transient views from designated public open space, recreational areas. ■ Views from and of rare, designated landscapes of national importance.
Moderate	■ Static views less populated residential areas, schools and other institutional buildings and their outdoor areas. ■ Views by outdoor workers. ■ Transient views from local/regional areas such as public open space, scenic roads, railways or waterways, users of local/regional designated tourist routes of moderate importance. ■ Views from and of landscapes of regional importance.
Low	■ Views by users of main roads or passengers in public transport on main arterial routes. ■ Views by indoor workers. ■ Views by users of recreational/formal sports facilities where the landscape is secondary to enjoyment of the sport. ■ Views by users of local public open spaces of limited importance with limited variety or distinctiveness.

Visual sensitivity (susceptibility and value) of receptor/resource	Typical descriptions
Negligible	■ Quick transient views such as from fast moving vehicles. ■ Views from industrial area, land awaiting re-development. ■ Views from landscapes of no importance with no variety or distinctiveness.

Assessment approach – magnitude and nature of effect

7.4.43 The magnitude and nature of effects may be positive (beneficial) or negative (adverse).

7.4.44 Effects can also be either direct or indirect. Direct effects are those which result directly from the development and typically occur within the Application Boundary for the Scheme. Indirect, or secondary, effects may be perceptual or experiential effects such as changes to the landscape character of an area out with the Application Boundary which arise due to, for example, a reduction in tranquillity arising from the Scheme.

Landscape

7.4.45 The assessment of likely magnitude and nature of effect on landscape character and landscape features has used professional judgement, guided by the criteria set out in **Table 7.8** below, which is taken from DMRB LA 107 Landscape and Visual Effects (Highways England, 2020). This is determined by considering the size / scale, the geographical extent, and the duration and reversibility as summarised below.

Size / scale of landscape change

7.4.46 The size and scale of change would depend on the degree to which a landscape receptor is changed by the Scheme, such as the removal or addition of new features within the landscape, and whether these are perceived as typical. This considers the following criteria:

- The relationship of the Scheme to the existing ground levels and contours (including mounds, bunds, cuttings, false cuttings). For instance, a new road may be accommodated comfortably within an undulating landscape, but more extensive earthworks may be required than would otherwise be the case in a flat landscape, where extensive cutting and embankment slopes could create adverse effects

- The relationship of the scale, extent, and materials of the proposed Scheme to those in the existing landscape, including side roads, junctions, structures, footpaths, cycleways and ancillary items such as safety barriers, drainage gulley's and kerb details

- The impact of traffic, including the proportion or frequency of high sided vehicles, and of vehicle headlights at night

- The height, scale, form of any road signage, together with other operational elements associated with the Scheme such as service areas, laybys, attenuation / infiltration ponds etc

- Temporary construction elements associated with the Scheme such as extraction areas, and site compounds etc

- Lighting, both as a permanent visual feature during the day and as a potentially intrusive element at night. Daytime effects are unlikely due to proposed lighting being limited to within the underpasses and on the gantries. Night-time effects could arise from the visibility of the new light sources, sky glow, glare, spillage, light reflection from the road surface, and gantries and the illumination of moving traffic. Incremental and cumulative effects on dark skies should be considered.

7.4.47 Of particular concern is how the changes affect the 'key characteristics' of the landscape. The following terminology is used to describe the size and scale of landscape change arising as a result of the development proposals:

- Large: total loss of or change to landscape character/ elements/ features/ characteristics

- Medium: a partial change in landscape character/ elements/ features/ characteristics

- Small: little change in landscape character/ elements/ features/ characteristics

- Very small: discernible change to landscape character/ elements/ features/ characteristics

- No change: no noticeable change to landscape character/ elements/ features/ characteristics

Geographical extent

7.4.48 To establish the geographical extent of an effect, a judgement about how far ranging the effect would be made. These would be described as local (small extent) with limited effects on wider landscape character; where changes are perceived across a wider area (medium extent); or where changes have a widespread influence and are perceived across a wide area (large extent). This

is judged on both the length or extent of the road infrastructure changes and the distance the effect extends from the Scheme.

Duration and reversibility

7.4.49 The following terminology is used to describe the duration of landscape and visual effects arising as a result of the development proposals:

- Temporary – up to 1 year
- Short term – between 1 and 5 years
- Medium term – between 5 and 15 years
- Long term – longer than 15 years

7.4.50 Reversibility relates to whether the change is likely to be reversed, such as construction effects which could mostly be recorded as 'reversible'. Where this is achieved through the replanting of vegetation, the landscape may be restored to something similar, however as it is not directly equivalent to the original, it could be recorded as 'partially reversible'. The permanent presence or removal of built structures would be considered 'not reversible'.

7.4.51 Judgements on the above factors (size / scale of visual change, geographical extent and duration and reversibility) are used to inform the overall reported magnitude and nature of landscape effect. Levels of magnitude of effect (change) and nature of effect are set out in **Table 7.7**. Descriptions are taken from Table 3.24 of the DMRB LA 107 Landscape and Visual Effects (Highways England, 2020).

Table 7.7: Landscape – magnitude of effect (change) and nature of effects

Magnitude and nature of effect	Indicative criteria descriptions
Major Adverse	Total loss or large-scale damage to existing landscape character or distinctive features and elements, and/or the addition of new uncharacteristic, conspicuous features or elements (i.e. road infrastructure).
Moderate Adverse	Partial loss or noticeable damage to existing character or distinctive features and elements, and/or the addition of new but uncharacteristic, noticeable features and elements.
Minor Adverse	Slight loss or damage to existing landscape character of one (maybe more) key features and elements; and/or addition of uncharacteristic new features and elements.

Magnitude and nature of effect	Indicative criteria descriptions
Negligible Adverse	Very minor loss, damage or alteration to existing landscape character of one or more features and elements.
No change	No noticeable alteration or improvement, temporary or permanent, of landscape character of existing features and elements.
Negligible Beneficial	Very minor noticeable improvement of character by the restoration of one or more existing features and elements.
Minor Beneficial	Slight improvement of landscape character by the restoration of one (maybe more) key existing features and elements; and/or the addition of new characteristic features.
Moderate Beneficial	Partial or noticeable improvement of landscape character by restoration of existing features or elements; or addition of new characteristic features or elements or removal of noticeable features or elements.
Major Beneficial	Large scale improvement of landscape character to features and elements; and/or addition of new distinctive features or elements, or removal of conspicuous road infrastructure elements.

Visual amenity

7.4.52 The assessment of likely magnitude of visual effect has used professional judgement. This is determined by considering the size / scale, the geographical extent, and the duration and reversibility.

Size / scale of visual change

7.4.53 The size and scale of change would depend on the degree to which the view or visual amenity is changed by the proposed Scheme, such as through the removal or addition of new features and whether these are perceived as typical. A large-scale Scheme would generate a greater magnitude of visual effect than would a small-scale change such as a junction improvement. This change can be in the form of the addition of new features into the view or the removal of existing features (such as trees, woodland or buildings). It should also be noted that a relatively small-scale Scheme may constitute a major change within a very restricted, enclosed view. Screening as part of the baseline view could restrict visibility and reduce the observable visual effect.

7.4.54 The direction and focus of the view are also considered. If the change occurs in the part of the landscape which is the principal area of existing visual interest, the effects are likely to be perceived to be greater than if the proposed change occurs away from the main area of visual interest.

7.4.55 Furthermore, the extent to which a given change is out of character with the existing view can influence the effects which it would produce. In addition, with increased distance the magnitude of any change would generally decrease, until a point is reached where there is no discernible change.

7.4.56 Lighting is also considered in relation to the size and scale of change. Daytime effects are unlikely due to proposed lighting being limited to within the underpasses and gantries. Night-time effects could arise from the visibility of the new light sources, sky glow, glare, spillage, light reflection from the road surface and the illumination of moving traffic. Incremental and cumulative effects on dark skies should be considered.

7.4.57 The following terminology is used to describe the size and scale of visual change arising as a result of the development proposals:

- Large: total or dominant change to the view
- Moderate: clearly noticeable change to the view
- Small: perceptible change to the view but not alter the overall balance of features and composition of the view
- Very Small: discernible or barely noticeable change to the view
- No change: no discernible change to the view

Geographical extent

7.4.58 To establish a geographical extent for an effect, a judgement would be made about how far ranging the effects are likely to be. These would be described as: local (small extent), where there are only a few locations from where the proposed Scheme can be glimpsed, or changes are experienced by few people; wider area (moderate extent), where there are several locations where similar views can be gained, or changes are experienced by a moderate number of people; or widespread (large extent), where there are many locations where similar views can be gained, or changes are experienced by a large number of people.

Duration and reversibility

7.4.59 The consideration of the duration and reversibility is set out in **paragraphs 7.4.49 to 7.4.50** above.

7.4.60 Judgements on the above factors (size / scale of visual change, geographical extent and duration and reversibility) are used to inform the overall reported magnitude and nature of landscape effect. Levels of magnitude of effect (change) and nature of effect are set out in **Table 7.8** (based on DMRB LA 107 Landscape and Visual Effects (Highways England, 2020), Table 3.43)).

Table 7.8: Visual criteria used to define magnitude of visual effect

Magnitude (change) of visual effect	Typical descriptions
Major	The Scheme, or a part of it, would become the dominant feature or focal point of the view.
Moderate	The Scheme, or a part of it, would form a noticeable feature or element of the view which is readily apparent to the receptor.
Minor	The Scheme, or a part of it, would be perceptible but not alter the overall balance of features and elements that comprise the existing view.
Negligible	Only a very small part of the Scheme would be discernible or being at such a distance that it would form a barely noticeable feature or element of the view.
No change	No part of the Scheme, or activity would be discernible.

Assessment approach - significance of effect

7.4.61 To achieve consistency with the other topics in the ES in the evaluation of the significance of effects, the assessment of significance in the LVIA is guided by using the matrix approach shown in **Table 4.4** of **Chapter 4 (EIA Methodology)** of the **ES (Document Reference 6.1)** and repeated as **Table 7.9** below:

Table 7.9: Significance Matrix

		Magnitude of Impact (Degree of Change)				
		No change	**Negligible**	**Minor**	**Moderate**	**Major**
Receptor Sensitivity	**Very High**	Neutral	Slight	Moderate or large	Large or very large	Very large
	High	Neutral	Slight	Slight or moderate	Moderate or large	Large or very large
	Medium	Neutral	Neutral or Slight	Slight	Moderate	Moderate or large
	Low	Neutral	Neutral or slight	Neutral or slight	Slight	Slight or moderate
	Negligible	Neutral	Neutral	Neutral or slight	Neutral or slight	Slight

7.4.62 In accordance with DMRB LA 107 Landscape and Visual Effects (Highways England, 2020) paragraphs 3.27, the assessment shall state whether or not a Scheme is likely to give rise to significant effects.

7.4.63 Effects are considered to be significant where the effects are assessed as moderate, large or very large. Professional judgement has been applied to determine the appropriate significance of effect where there are multiple choices.

7.4.64 In accordance with DMRB LA107 Landscape and Visual Effects (Highways England, 2020), an overall assessment of the likely significance of the cumulative landscape and visual effects required by LVIA is presented in the summary of this chapter. Throughout the LVIA clear evidence and justifications is provided to inform the professional judgement made.

7.4.65 Typical descriptors of the significance of effect categories in the matrix are provided in **Table 7.10** (based on DMRB LA 104 Environmental Assessment and Monitoring (Highways England, 2020) Table 3.7)).

Table 7.10: Typical descriptors for significance of effect categories

Significance of effect	Typical criteria descriptors
Very Large Beneficial Effect - Effects at this level are material in the decision-making process.	
Large Beneficial Effect - Effects at this level are likely to be material in the decision-making process.	
Moderate Beneficial Effect - Effects at this level can be considered to be material decision-making factors.	
Slight Beneficial Effect - Effects at this level are not material in the decision-making process.	
Neutral Effect - No effects or those that are beneath levels of perception, within normal bounds of variation or within the margin of forecasting error.	
Slight Adverse Effect - Effects at this level are not material in the decision-making process.	
Moderate Adverse Effect - Effects at this level can be considered to be material decision-making factors.	
Large Adverse Effect - Effects at this level are likely to be material in the decision-making process.	
Very Large Adverse Effect - Effects at this level are material in the decision-making process.	

Tranquillity and remoteness

7.4.66 Campaign to Protect Rural England (CPRE) define tranquillity as *"The quality of calm experienced in places with mainly natural features and activities, free from disturbance from manmade ones."* Paragraph 5.43 of Strategic Policy SD7: Relative Tranquillity of the South Downs Local Plan defines tranquillity as 'Tranquillity is considered to be a state of calm and quietude, is associated with peace and considered to be a substantial asset of the landscape, appearing as an objective attribute in a range of strategies, policies and plans'.

7.4.67 Tranquillity and sense of remoteness are a perceptual aspect and important in context of the nationally designated South Downs National Park, which identifies this as a special quality specifically within the River Itchen but also the downlands.

7.4.68 Given the importance the landscape assessment reported in this chapter of the **ES**, and **Appendix 7.3 (Schedule of Landscape Effects)** of the **ES (Document Reference 6.3)** has considered qualitative impacts on perceived tranquillity. The assessment is based on professional judgement and has been informed by the noise modelling undertaken and reported in **Chapter 11 (Noise**

and Vibration) of the **ES (Document Reference 6.1)**, published landscape characterisation work, and site surveys undertaken in 2020 and 2021.

Night-time environment

7.4.69 The South Downs National Park became an International Dark Skies Reserve in 2016 although the darkest areas are not within the immediate vicinity of the M3 corridor. As noted within the Scoping opinion, the Environmental Statement should assess any impacts associated with lighting (when lighting is present), providing evidence of how this has been taken into account. As part of this chapter, Environmental Lighting Zones have been identified within the Application Boundary and study area. **Table 7.11** sets out the Environmental Lighting Zones as defined in Table 2 from the *Institution of Lighting Professionals' (2021) Guidance Notes* on the *Reduction of Obtrusive Light* and *Section 5.1 of the South Downs National Park Dark Skies: Technical Advice Note Version 2 (South Downs National Park, 2021)*.

Table 7.11: Environmental lighting zones

Environmental Zone	Surrounding	Lighting Environment	Examples
E0	Protected	Dark (Sky Quality Measurements (SQM) 20.5+)	Astronomical Observable dark skies, UNESCO starlight reserves, IDA dark sky places
E1 (E1 a & E1 b)	Natural	Intrinsically dark E1a (SQM 20 to 20.5) E1b (SQM ~15 to 20)	Relatively uninhabited rural areas, National Parks, Areas of Outstanding Natural Beauty, IDA buffer zones etc.
E2	Rural	Low district brightness (SQM ~15 to 20)	Sparsely inhabited rural areas, village or relatively dark outer suburban locations
E3	Suburban	Medium district brightness	Well inhabited rural and urban settlements, small town centres of suburban locations
E4	Urban	High district brightness	Town/city centres with high levels of night-time activity

7.4.70 Professional judgements have been formed on the baseline night-time environment, following review of the dark skies light emission mapping produced by the South Downs National Park, and site survey work.

7.4.71 The Scheme includes lighting of the underpasses and two gantries. Due to the elevated nature of the gantries a lighting assessment has been included within **Appendix 7.7 (Technical Note: Lighting Assessment of Gantry Signage)** of the **ES (Document Reference 6.3)**. A lighting assessment has not been undertaken for the underpasses as lighting features are limited to the underpasses and not visible from the wider landscape.

7.4.72 This has been used to inform the night-time assessment included within this chapter of the **ES**, and **Appendix 7.3 (Schedule of Landscape Effects) and Appendix 7.4 (Schedule of Visual Effects)** of the **ES (Document Reference 6.3**).

7.4.73 The night-time assessment considers the baseline Environmental Light Zones identified for the landscape and visual receptors in accordance with **Table 7.10**. Considering the Scheme professional qualitative judgements are made as to whether the proposed elements / activities would introduce new light sources which would alter these baseline conditions. This informs the overall magnitude and nature of effect for each receptor and the overall judgment on South Downs National Park Dark Skies.

Reasonable worse case parameters for assessment

7.4.74 An assessment has been conducted within the Limits of Deviation (LoD) outlined within **Chapter 2 (The Scheme and its Surroundings)** of the **ES (Document Reference 6.1)**. The vertical and lateral LoD for the Scheme have been reviewed with respect to sensitive receptors identified within this ES chapter. The vertical and lateral LoD would not affect the conclusions of the assessment reported in this chapter.

7.4.75 The accurate visual representations and ZTVs prepared consider the Scheme design.

7.4.76 The reasonable worst case assessment for this chapter considers construction and operational effects as follows:

- It is assumed that construction effects would be at the worst-case scenario (assumed to commence in 2024) whereby construction activity is at its peak and vegetation loss associated with the Scheme has occurred. Construction work is assumed to occur over a short-term period (up to 3 years)

- Operation effects:

  - Year 1 (opening Year assumed to be 2027) – a winter's day in the year that the Scheme would be open to traffic fully operational (i.e., with noise/visual screens and earthworks in place but before any planted

mitigation has become effective) with all construction activity completed. This reflects a worst-case scenario in which the Scheme is in operation and most visible

- Year 15 (design year assumed to be 2042) – a summer's day 15 years after opening (i.e., when the planted mitigation measures can be assumed to be substantially effective). This is usually a reflection of the near fully mitigated scenario under normal conditions

Assessment assumptions and limitations

7.4.77 The following limitations and assumptions are of relevance to this chapter:

- Potential effects on people's views and visual amenity, as experienced from within the local area, have been assessed from a series of agreed representative VLs. These have been selected to represent the range of visual receptors present within the study area, and baseline photography for each VL has been captured to represent both the winter and summer view and night-time view in select locations. In accordance with *GLVIA3 (Landscape Institute and IEMA, 2013)* these are not intended to show or assess every possible view towards the Scheme

- VL photography has been taken from publicly accessible areas. No private views are assessed as part of this chapter

- The assessment of landscape and visual effects has been undertaken by chartered landscape architects using robust and recognised methodology, and in line with published best practice guidance. Effects have been assessed using professional judgement, considering the worst-case scenario

- The construction phase assessment assesses the worst case situation (peak activity) during the construction phase as a whole. This may not be the same point in time for all receptors due to the nature of construction activity and phasing of works

- Cultural heritage (including potential effects on the setting of heritage features) and ecological matters are not considered in this assessment, however, are considered in **Chapter 6 (Cultural Heritage)** and **Chapter 8 (Biodiversity)** of the **ES (Document Reference 6.1)**, respectively

- The accurate visual representations and ZTVs prepared consider the Scheme Design

- The scale of the Scheme in relation to the scale of the National Character Areas (NCA) means that an assessment of the effects on these NCAs is considered to be of only limited relevance. The landscape character of the site and its environs is considered to be accurately and effectively described through the more detailed published landscape character assessment

undertaken by the South Downs National Park Authority and Hampshire County Council as presented below. The assessment of effects on landscape character is therefore based on these more detailed landscape character assessments, and the NCAs are not considered further

- **Figure 2.3 (Environmental Masterplan)** of the **ES (Document Reference 6.2)** identifies existing vegetation to be retained within the Application Boundary. This has been coordinated with the vegetation loss identified in the **Appendix 7.5 (Preliminary AIA) of the ES** (**Document Reference 6.3**). This vegetation loss has been used as the basis to inform the assessment including the preparation of the Digital Surface Model (DSM) data for the ZTV. This retention provides a range of environmental functions including integrating the Scheme into the landscape and aiding visual screening and is considered important for a range of biodiversity and heritage benefits. Efforts have been made to reduce and restrict vegetation loss throughout both the construction and operational phases. For the purposes of this assessment, where there is uncertainty about the likelihood of vegetation being retained, it has been assumed that it would be removed. This is considered to represent a realistic worst-case scenario. Through the detailed design process the extent of vegetation removal may be reduced to less than that assumed for assessment purposes

- The study area extends up to 3km from the Application Boundary. It has been defined for the assessment of effects on landscape and visual amenity during both the construction and operational phases of the Scheme. The study area focuses on the area in which significant effects are likely to occur, and it should be noted the Scheme may be visible beyond the defined study area, however effects are not likely to be significant

7.5 Study area

7.5.1 In accordance with DMRB LA 107 Landscape and Visual Effects (Highways England, 2020), the study area has been identified specifically for the purposes of the assessment of the Scheme presented in this ES and is proportionate to the following factors:

- The location of the Scheme (including compounds and temporary land take, utility diversion works and vegetation loss) i.e. the DCO boundary

- The wider landscape setting within which the Scheme/its works has the potential to influence landscape character

- The extent of the area from which the Scheme is visible from (Zone of Visual Influence), informed by the Zone of Theoretical Visibility analysis

- The extent of adjacent or affected landscape receptors of special value (the South Downs National Park and its setting area, nearby the Register of Parks and Gardens of Special Historic Interest (RPG))

7.5.2 Taking a proportionate approach, the study area considers the area within which the Scheme may have an influence, with the potential to result in a significant effect. This is shown on **Figure 7.1 (Landscape Designations)** of the **ES (Document Reference 6.2)**, **Figure 7.3.1 (Landscape Character)** of the **ES (Document Reference 6.2)** and **Figure 7.4 (View Locations)** of the **ES (Document Reference 6.2)**.

7.5.3 Following professional review of the ZTV analysis (extending up to 5km beyond the Application Boundary), site survey and collation of baseline photography, a refined study area extending up to 3km from the Application Boundary has been defined for the assessment of effects on landscape and visual amenity during both the construction and operational phases of the Scheme.

7.5.4 At the 2021 statutory consultation, the study area presented in the Preliminary Environmental Information Report (PEIR) assumed a 3x3 km north and south boundary extent, and 2x2 km east and west extent from the Application Boundary. This area remains valid, however as the Application Boundary has reduced in extent for the purpose of the LVIA the study area has been simplified to a consistent 3km offset from the Scheme.

7.5.5 This allows general issues of landscape and visual effects on the 'setting' of the South Downs National Park and the townscape of Winchester to be considered and provide a thorough baseline understanding of the relationship between the existing M3 motorway and main roads, the River Itchen valley and the surrounding topography and landscape.

7.5.6 The study area includes:

- The settlements of Abbots Worthy and Kings Worthy beyond the River Itchen Valley to the north
- The settlements of Easton, and Itchen Abbas to the north-east
- The western end of the South Downs National Park including Magdalen Down and Chilcomb Down to the east
- St Catherine's Hill and Twyford Down to the south
- The city of Winchester and the River Itchen to the west

7.6 Baseline conditions

7.6.0 The baseline has been informed by the following published material:

- National Character Area (NCA) 125: South Downs (Natural England, 2015)
- NCA130: Hampshire Downs (Natural England, 2014)

- South Downs Landscape Character Assessment (South Downs National Park Authority, 2020)
- Winchester District Landscape Character Assessment (Winchester City Council, 2004)
- Ordnance Survey (OS) base mapping
- Publicly available aerial imagery (Google Earth Pro)
- Campaign to Protect Rural England (CPRE) Tranquillity Mapping
- South Downs National Park tranquillity mapping (South Downs National Park Authority, 2017)
- National Cycle Network Routes (Sustrans, 2021)
- The South Downs National Park Dark Skies: Technical Advice Note Version 2 (South Downs National Park, 2021)

Landscape designations

South Downs National Park and its setting

7.6.1 In the UK, National Parks are designated to conserve and enhance landscapes of the very highest quality, promote opportunities for the understanding and enjoyment of their special qualities, and foster the economic and social well-being of local communities within them.

7.6.2 The land within the Application Boundary lies partially within the South Downs National Park. Approximately 71.7 hectares (ha) lies within the South Downs National Park boundary, with the remaining approximately 41.7ha lying within the perceived setting area for the South Downs National Park, between the South Downs National Park and the settlement edge of Winchester. For the land take within the South Downs National Park, 31.3ha would be permanent new land take outside of the existing highways estate, and 33.2ha would be temporary land take.

7.6.3 Overall, the landscape of the South Downs National Park is therefore considered to be of **very high** value.

7.6.4 The undesignated landscape which provides the setting for the South Downs National Park is also important, albeit clearly not as important as the designation itself. The setting area for the South Downs National Park is therefore considered to be of **high** value.

7.6.5 The landscape character of the South Downs National Park is considered in more detail below. The Special Qualities of the South Downs National Park are

described in the *South Downs National Park Local Plan (South Downs National Park Authority, 2019)* and summarised as:

- Diverse, inspirational landscapes (of relevance to the Scheme - wide open downland on the chalk that spans the length of the national park, both intersected by river valleys)
- Breath-taking views (of relevance to the Scheme - panoramic views as you travel the one hundred mile length of the South Downs Way from Winchester to Eastbourne)
- A rich variety of wildlife and habitats including rare and internationally important species (of relevance to the Scheme - sheep grazed downland is the iconic habitat of the chalk landscape)
- Tranquil and unspoilt places (of relevance to the Scheme - the landscape possesses a timeless quality, largely lacking intrusive development and retaining areas of dark night skies)
- An environment shaped by centuries of farming (of relevance to the Scheme - the rural economy has strongly influenced the landscape and over 80 per cent of the South Downs is farmed. Past agricultural practices have produced some nationally valuable habitats including chalk downland)
- Great opportunities for recreational activities and learning experiences (of relevance to the Scheme - public rights of way and the entire South Downs Way National Trail within the national park allow for exceptional scope for walking, cycling and horse-riding)
- Well-conserved historical features and a rich cultural heritage (of relevance to the Scheme - National Park has strong links to its past human settlement)
- Embracing new enterprise
- Rare and internationally important species
- Distinctive towns and villages, and communities with real pride in their area

Register of Parks and Gardens of Special Historic Interest

7.6.6 The following parks and gardens listed on the RPG lie within the study area:

- Magdalen Hill Cemetery (Grade II – approximately 850m to the south-east of the Application Boundary). This is an early 20th Century cemetery noted for the layout and design of the tree and ornamental planting, this design relating *'well to the location of the cemetery on downland above the city*' of Winchester. Expansive views are possible to the north and west. Views to the south are curtailed by the rising ground of Magdalen Hill Down, while

those to the east are curtailed by modern development including the Winchester Science Centre

- Avington Park (Grade II* – approximately 1.6km to south-east of the Application Boundary). *'A park of medieval and C17 origins, laid out and landscaped to its present extent in the mid to late C18 by the third Duke of Chandos, surrounding informal C18 gardens with C19 and C20 planting.'*

7.6.7 The ZTV analysis indicates that there may be some very limited visibility of parts of the Scheme from restricted parts of these RPGs, generally from their edges nearest to the Scheme. As a result, there is potential for indirect perceptual or experiential effects on landscape character within the RPGs.

7.6.8 These RPGs, being designated at a non-statutory level, are considered to be of **high** value.

7.6.9 In addition, although not an RPG or under any other formal designation, Worthy Park at Abbots Worthy House (now a school) is listed in the inventory maintained by the Hampshire Gardens Trust (HGT). The HGT listing notes that the house (which is Grade II* listed) is visible from the M3, but that new houses have been built in some of the garden areas, *'destroying the original layout and designs of the gardens. The old walls remain as well as some specimen trees such as oaks, chestnuts, yews, and a magnificent Holm Oak, in the parkland and woods. However, little feel of the 19th century parkland.'*

7.6.10 Although Worthy Park is not formally designated and is no longer in its original state, the parkland still provides the setting for the Grade II* house. The parkland is therefore considered to be of **medium** value.

Access land

7.6.11 There are no areas of Access land within the Application Boundary, but there are a number within the study area, notably:

- Magdalen Hill Down
- St Catherine's Hill
- Land between Deacon Hill and the M3
- Land in the vicinity of Badger Farm Road on the southern edge of Winchester

7.6.12 Access Land is not designated for its landscape character, but its value is related to character. The value of Access Land in landscape terms, is therefore considered as part of the baseline assessment of the relevant Landscape Character Areas.

Conservation Areas

7.6.13 The Application Boundary includes very limited parts of the Kings Worthy Conservation Area at its eastern boundary along the A33, and the Abbots Worthy CA at its western boundary along the A33.

7.6.14 There are also a number of other CA within the study area, including:

- Avington
- Chilland
- Martyr Worthy
- Easton
- Abbots Worthy
- Winchester
- Twyford

7.6.15 Effects on designated CA within the 1km Cultural Heritage study area are considered in **Chapter 6** (**Cultural Heritage**) of the **ES** (**Document Reference 6.1**). CAs have not been assessed further in this chapter however their presence has informed judgements on value for landscape character and views.

Protected trees and vegetation (Ancient Woodland, veteran trees, Tree Preservation Orders, and Important Hedgerows)

7.6.16 There are no areas of Ancient Woodland or veteran trees within the Application Boundary.

7.6.17 There are a number of Tree Preservation Orders (TPOs) within or immediately adjacent to the Application Boundary, as summarised below:

- Area TPO 00065-2003-TPO, which covers a number of tree groups located adjacent to the B3047 highway as it passes under the M3, near Graces Farm. These lie outside the area surveyed as part of **Appendix 7.5 (Preliminary AIA)** of the **ES** (**Document Reference 6.3**)
- Area TPO 00652-2003-TPO located on land on the northern edge of Kings Worthy adjacent to the A33. As identified in the **Appendix 7.5 (Preliminary AIA)** of the **ES (Document Reference 6.3)**, this comprises of tree groups 133 (category B) and 134 (Category C), and woodland W2 (Category A)
- Area TPO 00039-2003-TPO located on land on the south-west corner of the existing gyratory roundabout. As identified in the **Appendix 7.5 (Preliminary**

AIA) of the **ES (Document Reference 6.3)**, this comprises a small section of tree group 43 (Category B)

- Area TPO 00039-2003-TPO located on land to the south of the Tesco superstore. As identified in the **Appendix 7.5 (Preliminary AIA)** of the **ES (Document Reference 6.3)**, this comprises of tree group 44 (Category A)

- Area TPO 00039-2003-TPO, located south of Winchester Sports Stadium within the M3 corridor approximately 50m south on the proposed 1 mile Advanced Directional Sign (ADS). This TPO does not reflect the current tree coverage in this area as the TPO extent partially overlaps with the M3 corridor, and the section of TPO which contains trees is not affected by the Scheme. This TPO is not considered further in this chapter.

7.6.18 Tree Group 43 is the only TPO (00039-2003-TPO) that would be affected by the Scheme. Being a Category B group (as identified in the **Appendix 7.5 (Preliminary AIA)** of the **ES (Document Reference 6.3)**, Tree Group 43 is assessed as being of **high** value.

7.6.19 Other TPO areas within the study area would not experience any direct or indirect effects as a result of their remoteness form the proposed Scheme, and therefore these are not considered further in this chapter.

7.6.20 The Application Boundary includes a number of Important Hedgerows (under the Hedgerow Regulations 1997), these along Easton Lane (H6 and H7) located east of the existing M3 Junction 9 gyratory, and Long Walk (H1, H2, and H3) as shown on the **Protected Trees and Hedgerows to be Removed Plans (Document Reference 2.13)**. Hedgerows are noted as being important due to their cultural heritage value and species rich nature, and presence as habitats of principal importance. Given the recognised ecological and cultural value these features are being assessed as being of **high** landscape value.

Cultural heritage designations

7.6.21 There are also a number of Listed Buildings (LBs) and Scheduled Monuments (SMs) within the study area, but none within the Application Boundary. Potential effects on these heritage assets are considered in **Chapter 6 (Cultural Heritage)** of the **ES** (**Document Reference 6.1**) and are not therefore considered further in this chapter. Where appropriate, the presence of LBs within the surrounding area has informed judgments on value for landscape character and views.

Landscape designations summary

7.6.22 **Table 7.12** provides an overview of relevant receptors highlighted previously, their value and susceptibility and overall sensitivity. Further detail is included in **Appendix 7.3 (Schedule of Landscape Effects)** of the **ES (Document Reference 6.3)**.

Table 7.12: Designated landscapes sensitivity summary

Receptor	Value	Susceptibility	Sensitivity
South Downs National Park	Very High	High	**Very High**
Registered Parks and Gardens: ■ Magdalen Hill Cemetery (Grade II) ■ Avington Park (Grade II*)	High	High	**High**
Worthy Park	Medium	Medium	**Medium**
Protected trees and vegetation (Tree Preservation Orders (TPOs) and Important Hedgerows)	High	Medium	**High**

Landscape character and features

7.6.23 Published national, county and local character areas within the study area are shown on **Figure 7.3.1 (Landscape Character Areas)** of the **ES (Document Reference 6.2)**.

National Character Areas

7.6.24 The Scheme falls within two NCAs. the majority of the Scheme lies within NCA130: Hampshire Downs, while a small part of the Scheme to the south-east lies within NCA125: South Downs. Summary descriptions of these NCAs are provided in **Appendix 7.2 (Landscape Character Baseline)** of the **ES (Document Reference 6.3)** however NCAs are not considered further in this Chapter.

South Downs National Park landscape character areas

7.6.25 The Scheme and study area lies within three of the landscape character areas (LCAs) identified in the *South Downs Landscape Character Assessment (South Downs National Park Authority, 2020)*. These character areas lie within Landscape Character Types (LCT) as referenced:

- LCA A5: East Winchester Open Downs (within LCT A: Open Downland)
- LCA F5: Itchen Floodplain (within LCT F: Major Chalk River Floodplains)
- LCA G5: Itchen Valley Sides (within LCT G: Major Chalk Valley Sides)

7.6.26 The published assessments for the three LCAs within the South Downs National Park which would be directly affected by the Scheme all identify the presence of the M3, A34 and A31 and their junctions as being detractors within the local landscape, with impacts on tranquillity and other perceptual characteristics extending beyond the immediate environs of the roads. The Scheme is acknowledged in all three assessments, with an emphasis on ensuring that the Scheme is sensitively designed (including any signage) to integrate with its surroundings. The potential for the Scheme to be less visually intrusive than the current arrangement through the use of well-designed tree planting and other landscape mitigation measures is also noted.

7.6.27 A summary description of each LCA is provided in **Appendix 7.2** (**Landscape Character Baseline**) of the **ES** (**Document Reference 6.3**) (abridged from the published description), with a judgement on the receptor value provided. The value, susceptibility and overall sensitivity are summarised in **Table 7.13,** with further detail is included in **Appendix 7.3 (Schedule of Landscape Effects)** of the **ES** (**Document Reference 6.3**).

Table 7.13: South Downs National Park LCA sensitivity summary

Receptor and Summary Characteristics	Value	Susceptibility	Sensitivity
LCA A5: East Winchester Open Downs ■ Open rolling upland chalk landscape ■ Occasional areas of species rich unimproved chalk grassland ■ Large open skies ■ A strong sense of remoteness and tranquillity ■ Expansive views over Winchester and the Itchen Valley	Very High	High	**Very High**
LCA F5: Itchen Floodplain ■ Provides a landscape setting for Winchester. ■ A landscape with flat landform and predominantly pastoral ■ Contains the meandering River Itchen ■ A diversity of habitats including the clear alkaline river, fen/marsh/swamp, neutral grassland and pockets of woodland ■ General absence of settlement, but the area is close to Winchester and crossed by the M3	Very High	High	**Very High**

Receptor and Summary Characteristics	Value	Susceptibility	Sensitivity
and A roads which interrupt the otherwise tranquil landscape			
LCA G5: Itchen Valley Sides ■ Smoothly rounded sides carved from chalk ■ Shallow well drained, calcareous silty soils support intensive arable cultivation ■ Field patterns are a mixture of informal and formal fieldscapes ■ Generally little woodland, but some distinctive belts at the floodplain edge ■ A sequence of villages and settlements occur along the lower valley sides, linked by roads which run parallel to the floodplain ■ The large landscape park at Avington is the most notable of the designed landscapes.	Very High	High	**Very High**

Hampshire County landscape character areas

7.6.28 The Scheme lies within two of the landscape character areas (LCA) identified in the *Hampshire Integrated Character Assessment (HICA) (Hampshire County Council, 2012)*:

- LCA 3C: Itchen Valley
- LCA 8G: East Winchester Open Downs

7.6.29 It should also be noted that LCA 3C and LCA 8G overlap with the LCAs within the South Downs National Park.

7.6.30 In addition, three further LCAs fall within the study area (but outside the South Downs National Park):

- LCA 7B: Hannington and Dummer Downs
- LCA 7F: West Winchester Downs
- LCA 8E: Mid Hampshire Open Downs

7.6.31 Summary information about the LCAs are set out in **Appendix 7.2 (Landscape Character Baseline)** of the **ES (Document Reference 6.3)** (abridged from the

published description). The key characteristics, value, susceptibility and overall sensitivity are summarised in **Table 7.14**, with further detail is included in **Appendix 7.3 (Schedule of Landscape Effects)** of the **ES (Document Reference 6.3)**.

Table 7.14: Hampshire County LCA sensitivity summary

Receptor and Summary Characteristics	Value	Susceptibility	Sensitivity
LCA 3C: Itchen Valley ■ The Itchen is a classic chalk stream ■ A valley of contrasts from a small stream to a fast-flowing river, largely undeveloped floodplain is a unifying feature ■ Important concentration of remnant water meadows ■ The valley floor is mainly neutral grassland, a complex mosaic of fen species rich meadow and improved meadows ■ Small villages and scattered farms ■ An extremely rich built heritage and setting to Winchester ■ There is fairly good access to the valley by rights of way	Very High (within South Downs National Park) High (outside of South Downs National Park)	High	**High**
LCA 8G: East Winchester Open Downs ■ Topographically varied and striking rolling landscape ■ Dominated by large 18th and 19th century fields of arable and pasture, bounded by sparse thorn hedgerows, creating an open landscape ■ Occasional areas of species rich unimproved chalk grassland occur ■ A strong sense of remoteness and tranquillity away from the major transport routes ■ Good public access with a network of public rights of way ■ Sparse settlement	Very High	High	**Very High**

Receptor and Summary Characteristics	Value	Susceptibility	Sensitivity
■ Large open skies ■ The area forms an important eastern setting to Winchester			
LCA 7B: Hannington and Dummer Downs ■ High elevated open chalk plateau giving rise to a gently undulating topography ■ Large open arable farmland enclosed with low hedgerows, trees and extensive woodland blocks ■ Varying inter-visibility ■ Settlement consists of nucleated, small hamlets and scattered farms located on hilltops or within valleys ■ Quiet and unspoilt rural character with a sense of openness and space	Medium	Medium	**Medium**
LCA 7F: West Winchester Downs ■ A landscape of mixed downland scale ■ Very undulating landscape often with far reaching views ■ Substantial tracts of interconnecting ancient and semi-natural woodland blocks ■ Valley side settlements, nucleated villages and dispersed farmsteads	Medium	Medium	**Medium**
LCA 8E: Mid Hampshire Open Downs ■ A sense of elevation, space and expansive views ■ A landscape of straight edges and sense of planned countryside on a large scale ■ Large farm holdings dominated by cereal crops with little grazing ■ Woodland is rare ■ Historic drove routes survive as prominent hedgerow lines in the landscape	Medium	Medium	**Medium**

Receptor and Summary Characteristics	Value	Susceptibility	Sensitivity
▪ A landscape of considerable perceptual time-depth and an early focus for farming ▪ Very few settlements			

Hampshire County townscape character areas

7.6.32 The HICA also includes a townscape character assessment for Winchester, summary descriptions of the different Townscape Character Areas (TCAs) which may be affected by the Scheme are provided in **Appendix 7.2 (Landscape Character Baseline)** of the **ES** (**Document Reference 6.3**) (abridged from the published description). The key characteristics, value, susceptibility and overall sensitivity are summarised in **Table 7.15**, with further detail is included in **Appendix 7.3 (Schedule of Landscape Effects)** of the **ES (Document Reference 6.3)**.

7.6.33 None of the TCAs lie within the South Downs National Park, and the Scheme lies predominantly outside of the various identified TCAs, with only a short section of Easton Lane extending slightly into TCA 8a: Winnall Trading Estate being within the Application Boundary.

Table 7.15: Hampshire County TCA sensitivity summary

Receptor and Summary Characteristics	Value	Susceptibility	Sensitivity
TCA 8a: Winnall Trading Estate ▪ Enclosed coarse-grained industrial estate on a medium to large scale with shed-like structures ▪ Large, often skewed, regular grid of plots of varying sizes ▪ Very little tree cover to the character area but good tree screening to the M3 ▪ Poor public realm, favouring the car user	Low	Low	**Low**

Receptor and Summary Characteristics	Value	Susceptibility	Sensitivity
TCA 6a: St Giles' Hill ■ A late-19th- and 20th-century suburb situated on a distinct spur looking over the riverside setting of the city. It is characterised by its wooded nature ■ Medium to coarse open-grain character, large, detached houses and villas in irregular plots dating from Victorian, Edwardian and later periods ■ Two-storey houses, some on a grand scale, almost entirely residential ■ The mature trees and hedgerows are an essential feature of this area and are a crucial setting for the wider city. ■ Hedges, soft verges, limited on-street parking, tree-lined lanes	Medium (outside of the Conservation Area) High (within the Conservation Area)	Medium	**Medium**
TCA 6b: Winnall ■ An area of immediate-post-war social-type housing and associated facilities ■ Consistent buildings lines throughout, those to south-eastern corner defining parking courtyards ■ Two-storey houses and three-storey blocks of flats, and almost entirely residential with a small parade of shops and a primary school ■ Very low level of tree cover throughout but a high degree of open green space ■ Open front boundaries give the impression of wide spacious roads despite on- street parking, no street trees	Medium	Low	**Low**
TCA 6c: Highcliffe ■ An outlying, isolated suburb of an unusual mix of Victorian and immediate-post- war housing	Medium	Low	**Low**

Receptor and Summary Characteristics	Value	Susceptibility	Sensitivity
■ Consistent building lines throughout ■ Residential suburbs with school, corner shop, public house and church ■ Very limited tree cover throughout, but very large open green spaces to southern boundary ■ On-street parking, limited grass verges and no street trees			
TCA 5: Riverside ■ Development to the riverside corridor with medieval origins and good survival and mix of early buildings ■ Consistent building lines almost throughout houses to back of pavement with nofront areas ■ Red brick, flint, stone rubble, some painted brickwork, distinctive use of hangingtiles, mostly tile roofs ■ Good quality public realm throughout, especially to riverside spaces ■ Good access and connectivity for pedestrians, poor connectivity for car users	High	Medium	**High**

Winchester District landscape character assessment

7.6.34 Within the study area, the LCAs identified in the *Winchester District landscape character assessment* all overlap with those in the more recent *South Downs National Park landscape character assessment (which was updated in 2020)* and *Hampshire integrated character assessment (published in 2012)*. The more recent published assessments are therefore considered to provide a more up-to-date and comprehensive assessment of existing local landscape character, and the 2004 Winchester assessment is therefore not considered further here.

Landscape character within the Application Boundary and its immediate environs

7.6.35 The value, susceptibility and overall sensitivity of the landscape character within the Application Boundary is summarised in **Table 7.16**, with further detail

included in **Appendix 7.3** (**Schedule of Landscape Effects**) of the **ES** (**Document Reference 6.3**).

Table 7.16: Landscape character within the Application Boundary and its immediate environs sensitivity summary

Receptor and Summary Description	Value	Susceptibility	Sensitivity
Land within the Application Boundary which forms the existing highway estate In landscape and visual terms, the landscape within the Application Boundary for the permanent works of the Scheme comprises: ▪ The existing M3, A33 and A34, together with adjacent highways infrastructure such as signage , surface water management, and roadside tree planting features ▪ Part of Easton Lane extending from the existing Junction 9 roundabout into the Winnall Trading Estate ▪ Limited sections of the River Itchen, its tributaries and adjacent water meadows where these pass under the existing highways ▪ Agricultural land within the Application Boundary on either side of the M3 within the South Downs National Park	Negligible (Land within the existing highway boundary) Low (Land within the wider highway estate)	Low	**Low**
Land beyond the existing highway estate within the Application Boundary (all within the South Downs National Park) *Note: generally described within the published landscape character assessments detailed previously.* In summary, to the west of the permanent works of the Scheme,	Very high	High	**Very High**

Receptor and Summary Description	Value	Susceptibility	Sensitivity
(heading from the south), the landscape comprises: ■ An area of woodland and scrub ■ Playing fields associated with the Winchester Sports Stadia ■ The eastern edges of the residential areas ■ The eastern part of the Winnall trading estate ■ Farmland and water meadows on either side of the River Itchen ■ The edge of Kings Worthy To the north of the permanent works of the Scheme is part of the floodplain of the River Itchen, with a mix of grassland, water meadows and tree cover. To the east of the permanent works of the Scheme (heading from north to south), the landscape comprises: ■ Managed farmland, predominantly arable with some areas of grassland, trees and scrub ■ Isolated dwellings and farmsteads ■ St Swithun's School and associated playing fields ■ The A272/A31 roundabout junction ■ To the south of the A272/A31 roundabout is further arable and pastoral farmland, and a small business park between the A31 and Junction 10 of the M3			

Landscape features within the Application Boundary

7.6.36 Landscape features and elements within the Application Boundary which would be directly affected by the Scheme comprise:

- Topography

- Existing trees, woodlands and hedgerows
- Watercourses
- Agricultural land
- PRoW network (parts of) / local connectivity

7.6.37 The key characteristics, value, susceptibility and overall sensitivity of the landscape features within the Application Boundary are summarised in **Table 7.17**, with further detail included in **Appendix 7.3 (Schedule of Landscape Effects)** of the **ES (Document Reference 6.3).**

Table 7.17: Landscape features within the Application Boundary sensitivity summary

Receptor and Summary Description	Value	Susceptibility	Sensitivity
Topography The topography comprises of three main types: ■ Gently undulating slopes of the South Downs falling towards the eastern edge of the existing M3 ■ The Itchen Valley sides and floodplain ■ The engineered landforms of the existing M3, A33 and A34 roads.	Low (within highway estate) Very high (within South Downs National Park)	Medium	**High**
Existing trees, woodlands and hedgerows Extensive tree cover predominantly located in areas of woodland, floodplains and in roadside buffer planting. A tree survey (*RT-MME-153202-01*) focusing on the M3 Junction 9 section identified 155 individual trees, 154 groups of trees, 7 hedgerows and 2 two woodlands. Tree cover was generally found to be of low to moderate quality in line with BS5387. A further tree survey (*Rt-MME-157911-01*) focusing on the approach to M3 Junction 9 and areas for installation of proposed ADS signage identified 95 individual trees, and 3 groups of trees, comprising mainly low quality with some medium quality trees, in accordance with	Medium	Medium	**Medium**

Receptor and Summary Description	Value	Susceptibility	Sensitivity
BS5387. Full details are included in **Appendix 7.5 (Preliminary AIA)** of the **ES (Document Reference 6.3)**.			
Watercourses The River Itchen and some of its tributaries cross the land within Application Boundary. These form an important component of the character of the northern part of the landscape within the Application Boundary, located within the South Downs National Park. They are however influenced by the existing highway network which influences its contribution to the special qualities of this designation (i.e. tranquil places).	High	High	**High**
Agricultural land Agricultural land is a defining characteristic of the surrounding landscape. It is located on either side of the M3 and within the South Downs National Park, noted as a key characteristic and considered to contribute to the special qualities of this designation.	High	High	**High**
PRoW network A number of existing PRoWs within the Application Boundary which form part of a wider local network, including: ■ South Downs Way ■ NCN Route 23 ■ Itchen Way ■ St Swithun's Way ■ Pilgrims Way ■ Allan King Way ■ Three Castle Path ■ Local PRoWs The existing M3 corridor and highway network creates a degree of severance on this PRoW network, and it is noted in the	High	High	**High**

Receptor and Summary Description	Value	Susceptibility	Sensitivity
published landscape character assessments that this is a particular issue in relation to access from Winchester to the South Downs National Park via the existing Junction 9 gyratory.			

Visual amenity

7.6.38 This section identifies the visual amenity baseline. All visual receptors are people. Potential visual receptors as identified during the baseline analysis, site survey and consultation with the stakeholders of relevance to this Scheme include:

- Users of PRoWs within the Scheme or its immediate environs within the study area
- Users of more distant PRoWs in areas with theoretical visibility of the Scheme within the study area
- Users of promoted recreational routes and long-distance routes (LDRs) such as the South Downs Way and the Itchen Way
- Users of Access Land in areas with theoretical visibility of the Scheme
- Recreational users of the River Itchen and its tributaries, such as people engaged in fishing activities
- Occupiers of residential properties in settlements with theoretical visibility of the Scheme, including:
  - Winchester (including the suburb of Winnall)
  - Kings Worthy
  - Martyr Worthy
  - Headbourne Worthy
  - Abbots Worthy
  - Itchen Abbas
  - Easton
  - No Man’s Land
  - Littleton
  - South Wonston
- Occupiers of individual residential properties and farmsteads, such as:
  - Manor Farm

- Lone Barn
- Winnall Cottage Farm
- Shoulder of Mutton Farm
- Winnall Down Farm
- Magdalen Hill Farm

- Pupils, staff and visitors at St Swithun's School, Winchester and Prince's Mead School at Abbots Worthy
- Users of the existing motorway and main road network
- Users of the local minor and urban road network
- Users of the Southwestern Main Line railway in locations with theoretical visibility of the Scheme
- People at their place of work in areas with theoretical visibility of the Scheme and where their work and/or workplace allows views of the surrounding landscape, such as office workers with views towards the Scheme and agricultural operatives working in fields with views towards the Scheme

Key views

7.6.39 Key views are those which are designated by local authorities, identified as strategic views in local plans or visual studies, or noted within published literature / guidance. These may be identified as key views for their cultural or historic value or due to their strategic importance.

7.6.40 There are no designated views or viewing locations marked on OS mapping within the Application Boundary.

7.6.41 The western end of the South Downs National Park lies within the study. Views to and from this designated landscape are important, and a number of the VL have been selected to be representative of views for the South Downs National Park. These views have been agreed through the consultation process including with the South Downs National Park Authority.

7.6.42 Within the South Downs National Park Authority's *Viewshed Analysis (South Downs National Park Authority, 2017)*, two key views lie within the study area. These key views have been included as VLs in the assessment as they lie within the ZTV extent and are close to the Scheme. These are as follows:

- South Downs National Park Authority Viewpoint 62 on the St Swithun's Way within the Itchen Valley – included as VL 3 **(see Table 7.18)**
- South Downs National Park Authority Viewpoint 15 at St Catherine's Hill – included as VL 9 **(see Table 7.18)**

Zone of theoretical visibility

7.6.43 A range of ZTV analyses have been prepared to support the assessment.

7.6.44 The DTM analysis **Figure 7.5** (**Comparative ZTV ((existing M3, A33 and A34 with Scheme)**) of the **ES** (**Document Reference 6.2**) identifies, in the worst case that there is limited change between the existing visibility of the M3, A34, and A33 roads and the visibility of the proposed Scheme (highway). Existing and proposed theoretical visibility includes areas to the east within the South Downs National Park, these being focused within a 1km extent and including areas of prominent landform such as Magdalen Hill Down and the rising landform to the north of the River Itchen (but outside the South Downs National Park designation). To the west and south-west, visibility is extensive within the townscape area of Winchester, extending up to distances of 3km from the Application Boundary to the western extent of the settlement as the landform rises to the West Winchester Downs. To the north-west, areas of visibility extend beyond 3km to the west, including areas of Worthy Down, South Wonston, and Littleton. Overall, the ZTV analysis demonstrates that the existing landform restricts visibility, with this being focused to elevated landform and along the River Itchen Valley.

7.6.45 The DSM analysis **(Figures 7.6-7.10** of the **ES** (**Document Reference 6.2))** identifies visibility within broadly the same geographical areas as that presented in the DTM analysis. Typically visibility reduces and is more intermittent, accounting for the presence of vegetation and built form. However when accounting for elevated features (gantries and VMS) visibility does increase from that shown on **Figure 7.5.** This is the result of the elevated features not being included in the DTM analysis, and it should be noted that no comparative analysis has been undertaken for existing elevated features on the M3 corridor, which as verified from site survey are visible from areas within the study area.

7.6.46 Finally, a DSM analysis **Figure 7.11 (ZTV of the Scheme (with mitigation))** of the **ES** (**Document Reference 6.2**) illustrates reduced theoretical visibility within the surrounding landscape when accounting for the establishment of proposed landscape mitigation.

Inter-visibility

7.6.47 The ZTV analysis and site survey has concluded that levels of inter-visibility within the study area are variable depending on location, topography, and levels of field boundary, roadside and riverine vegetation and the presence of woodland. This is demonstrated through the visual baseline as presented on **Figure 7.12 (Photosheets (Daytime winter and summer))** of the **ES (Document Reference 6.2)**.

7.6.48 Some long-distance views are possible from elevated locations on the South Downs such as at Magdalen Hill Down and St Catherine's Hill. Long-distance views are also possible from elevated locations outside of the South Downs

National Park, such as the access land on the southern edge of Winchester and from the tower of Winchester Cathedral.

7.6.49 Within the Itchen Valley, views can be restricted by vegetation (e.g. from the Itchen Way and St Swithun's Way).

7.6.50 Views from within the city of Winchester are generally more restricted by built form and the often well-treed townscape of the city. Longer range views are however sometimes possible, when a combination of topography, gaps in vegetation and built form occur such as at Turnpike Down and Ridgeway.

Selection of representative VLs

7.6.51 Preliminary ZTV analysis identified 18 representative VLs which were proposed in the 2019 PEIR (Highways England, 2019) for the analysis of effects on visual amenity. Through the subsequent consultation process a number of additional locations were requested by the South Downs National Park Authority and Winchester City Council, and six of these were added to the assessment resulting in a total of 24 representative VLs. Further consultation undertaken following the removal of the ALR Scheme resulted in the addition of a further view location (VL 19b), providing a total of 25 representative VLs (see **Table 2.1, Appendix 7.1 (Methodology)** of the **ES (Document Reference 6.3)**.

7.6.52 The selected VLs, as set out in **Table 7.18** and in **Appendix 7.4 (Schedule of Visual Effects)** of the **ES (Document Reference 6.3)**, represent the range of visual receptor types with potential visibility of the Scheme (i.e. within the area identified in the ZTV analysis), from a range of directions and distances within the study area. These also cover the range of landscape character areas that are present within the study area.

Table 7.18: View location sensitivity summary

View Location (VL) No. and Name	Value	Susceptibility	Sensitivity
VL 1 Easton Lane/ NCN Route 23	Very High	High	**Very high**
VL 2 B3047 London Road adjacent to Church Green	High	Low	**High**
VL 3 St Swithun's Way within the Itchen Valley	Very High	High	**Very high**
VL 4 Abbots Barton, Public Open Space at Lea View	High	High	**High**
VL 5 Turnpike Down	Moderate	Moderate	**Moderate**
VL 6 (a/b) B3404 on bridge over M3	Moderate	Low	**Moderate**

View Location (VL) No. and Name	Value	Susceptibility	Sensitivity
VL 7 PRoW (FP111/1/1) adjacent to railway near Well House Lane	High	Moderate	**High**
VL 8 PRoW (FP049/13/1) on crown of Magdalen Hill	Very High	High	**Very high**
VL 9 St Catherine's Hill	Very High	High	**Very high**
VL 10 PRoW (FP011/707/1) crossing Access Land to south-east of Badger Farm. Also close to Whiteshute Lane (Restricted Byway 056/35/4)	Moderate	Moderate	**Moderate**
VL 11 Itchen Way north of Easton Down	Very High	High	**Very high**
VL 12 Easton Lane adjacent to retail/commercial development on northern edge of Winnall and close to existing Junction 9 roundabout	Low	Low	**Low**
VL 13 Minor Road known as Long Walk close to western edge of South Downs National Park	Very High	Moderate	**High**
VL 14 Itchen Way close to A33/A34 bridge over River Itchen	Very High	Moderate	**High**
VL 15 Down Farm Lane	Moderate	Moderate	**Moderate**
VL 16 St Swithun's School	High	Moderate	**Moderate**
VL 17 Winchester Cathedral	Very High	High	**Very high**
VL 18 Ridgeway (residential street in western part of Winchester)	Moderate	Low	**Moderate**
VL 19 Layby on Morestead Road	Very High	Moderate	**High**
VL 19b Open Access Land (along the mini scarp below Morestead Road) west of Deacon Hill	Very High	High	**Very High**
VL 20 South Downs Way on footbridge over existing M3	High	Low	**Moderate**
VL 21 Winchester City Council Sports Ground to south-west of Magdalen Hill Down	High	Low	**Moderate**

View Location (VL) No. and Name	Value	Susceptibility	Sensitivity
VL 22 Layby on A31	Very High	Low	**Moderate**
VL 23 PRoW (Restricted Byway 128/19/1) between Long Walk and Easton	Very High	High	**Very high**
VL 24 PRoW (St Swithun's Way, FP 134/8/2) near B3047 at Abbots Worthy	Very High	High	**Very high**

7.6.53 Baseline photographs (winter and summer) are presented on photo sheets at **Figure 7.12 (Photo Sheets Daytime Winter and Summer)** of the **ES (Document Reference 6.2)**. These have been presented in accordance with the technical methodology set out in **Appendix 7.1 (Methodology)** of the **ES (Document Reference 6.3)**. The location of VLs are identified on the photo sheets and on **Figure 7.4 (View Locations)** of the **ES (Document Reference 6.2)**.

7.6.54 The baseline description with reference to the daytime, winter, summer and night time views for each considered VL, is set out within **Appendix 7.4 (Schedule of Visual Effects)** of the **ES (Document Reference 6.3)**.

Tranquillity and remoteness

7.6.55 Levels of relative tranquillity are identified on **Figure 7.3.3** (**Tranquillity**) of the **ES** (**Document Reference 6.2**) with summaries of the levels of perceived tranquillity provided for each landscape character area in **Appendix 7.4** (**Schedule of Visual Effects**) of the **ES** (**Document Reference 6.3**).

Night-time Environment

7.6.56 Environmental Light Zones within the study area are identified on **Figure 7.3.2 (Landscape Character Areas – Night-time Environmental Light Zones)** of the **ES (Document Reference 6.2)**. A series of night-time photographs have been undertaken for a range of VLs (VL1. VL2, VL4, VL6a, VL6b, VL9, VL12, VL13, VL14, VL16, VL23, and VL24) as identified on **Figure 7.3.3 (Tranquility)** of the **ES** (**Document Reference 6.2**) and presented on **Figure 7.13 (Photo Sheets (Night-time))** of the **ES (Document Reference 6.2)**). These views are representative of the night time baseline. The locations were agreed with stakeholders including the South Downs National Park, as detailed in **Table 7.1**.

7.6.57 A summary of the night-time environment and environmental lighting zone for each landscape character area and VL is provided in **Appendix 7.3 (Schedule**

of Landscape Effects) and **Appendix 7.4 (Schedule of Visual Effects)** of the **ES (Document Reference 6.3)**.

Baseline evolution

7.6.58 The landscape and visual baseline is likely to change in locations where established trees, woodland and other vegetation is still growing and developing, particularly where existing tree cover already provides visual screening of the existing M3 and other roads. The growth of this vegetation by year 15 would further increase the visual screening of the existing roads from nearby locations. Conversely ongoing management including pruning as part of National Highways responsibility may periodically increase views of the existing road.

Ash Dieback (Hymenoscyphus fraxineus)

7.6.59 **Appendix 7.5** (**Preliminary AIA**) of the **ES** (**Document Reference 6.3**) indicates that at least 20% of the existing trees within the Application Boundary are ash (Fraxinus excelsior). The presence and proportion of ash trees within the wider local landscape is unknown, but ash is likely to be an important component species. As noted in the **Appendix 7.5** (**Preliminary AIA**) of the **ES** (**Document Reference 6.3**) Ash die-back is evident, and these trees are at risk of being lost, resulting in potentially increased visibility of the existing roads, and some changes to the make-up of woodlands and tree cover within the local landscape.

7.6.60 The effects of ash dieback in the landscape and the scale of losses are unknown and unquantifiable. Therefore, while likely to be perceptible overall and more noticeable within certain locations, it is not considered that this would affect the overall wooded nature and characteristics of the local landscape, and the overall screening/containing benefit would be retained.

Other Developments

7.6.61 **Appendix 15.1** (**Long List of Cumulative Schemes**) of the **ES** (**Document Reference 6.3**) provides a full list of schemes which have been identified as being likely to be in operation prior to the construction of the Scheme. Where relevant, these schemes therefore form part of the future baseline scenario and have been taken into account in the assessment of likely significant effects from the Scheme (construction and operation) presented in this Chapter.

7.6.62 The Motorway Upgrade project on the M3 is considered as part of the future baseline. As set out in **Chapter 2 (The Scheme and its Surroundings)** of the **ES** (**Document Reference 6.1**). This development would result in the replacement of the central reservation only. The construction activity to undertake this would not affect the overall wooded character of the existing M3 corridor south of the M3 Junction 9 and therefore the screening function this woodland provides would remain.

Consideration of climate change

7.6.63 **Appendix 14.4** (**Climate Projections Data**) of the **ES** (**Document Reference 6.3**) provides an overview of the likely changes in climatic conditions at the Scheme resulting from climate change. In relation to this chapter, the identified baseline could evolve through changes to vegetation species composition due to changes in rainfall and average temperatures. The extent and nature of such changes is unquantifiable, but may include, for example, decreasing prevalence of beech trees (baseline ~10% as identified in **Appendix 7.5** (**Preliminary AIA**) of the **ES (Document Reference 6.3)** due to increasing temperatures. Within the timescales considered in this assessment, such changes could result in trees being lost, resulting in potentially increased visibility of the existing roads (when combined with the effects of Ash dieback), and some changes to the make-up of woodlands and tree cover within the local landscape.

7.6.64 Landscape mitigation planting mixes would be selected to ensure resilience to potential climate change effects. Indicative species included within **Appendix 7.6**: **Outline Landscape and Ecological Management Plan** (**OLEMP)** of the **ES** (**Document Reference 6.3**) includes a diverse mix including species with specific tolerance to drought and waterlogging, which may be a more common occurrence within the Application Boundary.

Summary of landscape and visual receptor sensitivity

7.6.65 Landscape and visual receptor sensitivity is derived from the combination of receptor value and the susceptibility of the receptor to development of the type proposed, as set out in **Appendix 7.1** (**Methodology**) of the **ES** (**Document Reference 6.3**) and detailed previously.

7.6.66 **Table 7.19** summaries the sensitivity of the various landscape and visual receptors identified.

Table 7.19: Landscape and visual receptor sensitivity summary

Receptor	Sensitivity
Designated Landscapes	
South Downs National Park	**Very High**
RPG: ■ Magdalen Hill Cemetery (Grade II) ■ Avington Park (Grade II*)	**High**
Worthy Park	**Medium**

Receptor	Sensitivity
Protected trees and vegetation (Tree Preservation Orders (TPOs) and Important Hedgerows)	**High**
Landscape Character Areas	
South Downs National Park LCAs	
LCA A5: East Winchester Open Downs	**Very high**
LCA F5: Itchen Floodplain	**Very high**
LCA G5: Itchen Valley Sides	**Very high**
Hampshire LCAs and TCAs	
LCA 3C: Itchen Valley	**High**
LCA 7B: Hannington and Dummer Downs	**Medium**
LCA 7F: West Winchester Downs	**Medium**
LCA 8G: East Winchester Open Downs	**Very high**
LCA 8E: Mid Hampshire Open Downs	**Medium**
TCA 5: Riverside	**High**
TCA 6a: St Giles' Hill	**Medium**
TCA 6b: Winnall	**Low**
TCA 6c: Highcliffe	**Low**
TCA 8a: Winnall Trading Estate	**Low**
Land within the Application Boundary which forms the existing highway estate	**Low**
Land beyond the existing highway estate within the Application Boundary (all within the South Downs National Park)	**Very high**
Landscape Features and Elements within Application Boundary	
Topography	**High**
Existing trees, woodlands and hedgerows	**Medium**
Watercourses	**High**
Agricultural land (both arable farmland and pastoral grassland)	**High**
PRoW network	**High**
Visual receptors	

Receptor	Sensitivity
VL 1 Easton Lane/ NCN Route 23	**Very high**
VL 2 B3047 London Road adjacent to Church Green	**High**
VL 3 St Swithun's Way within the Itchen Valley	**Very high**
VL 4 Abbots Barton, Public Open Space at Lea View	**High**
VL 5 Turnpike Down	**Moderate**
VL 6 (a/b) B3404 on bridge over M3	**Moderate**
VL 7 PRoW (FP111/1/1) adjacent to railway near Well House Lane	**High**
VL 8 PRoW (FP049/13/1) on crown of Magdalen Hill	**Very high**
VL 9 St Catherine's Hill	**Very high**
VL 10 PRoW (FP011/707/1) crossing Access Land to south-east of Badger Farm. Also close to Whiteshute Lane (Restricted Byway 056/35/4)	**Moderate**
VL 11 Itchen Way north of Easton Down	**Very high**
VL 12 Easton Lane adjacent to retail/commercial development on northern edge of Winnall and close to existing Junction 9 roundabout	**Low**
VL 13 Minor Road known as Long Walk close to western edge of South Downs National Park	**High**
VL 14 Itchen Way close to A33/A34 bridge over River Itchen	**High**
VL 15 Down Farm Lane	**Moderate**
VL 16 St Swithun's School	**Moderate**
VL 17 Winchester Cathedral	**Very high**
VL 18 Ridgeway (residential street in western part of Winchester)	**Moderate**
VL 19 Layby on Morestead Road	**High**
VL 19b Open Access Land (along the mini scarp below Morestead Road) west of Deacon Hill	**Very High**

Receptor	Sensitivity
VL 20 South Downs Way on footbridge over existing M3	**Moderate**
VL 21 Winchester City Council Sports Ground to south-west of Magdalen Hill Down	**Moderate**
VL 22 Layby on A31	**Moderate**
VL 23 PRoW (Restricted Byway 128/19/1) between Long Walk and Easton	**Very high**
VL 24 PRoW (St Swithun's Way, FP 134/8/2) near B3047 at Abbots Worthy	**Very high**

7.7 Potential impacts

7.7.1 The Scheme has the potential to impact upon landscape and visual receptors. Impacts may be direct (physical) or indirect (changes to setting). The effects during construction are anticipated to be short to medium term duration (temporary) while post-construction (operation) effects are anticipated to be of long-term duration (either partially permanent or permanent) unless otherwise stated.

Construction (including site preparation)

Landscape and visual effects

7.7.2 Direct effects on designated landscapes (including the South Downs National Park), landscape character and landscape features and elements would be limited to land within the Application Boundary, with some indirect perceptual/experiential effects on the wider surrounding landscape.

7.7.3 Effects on local visual amenity would be experienced both within the Application Boundary and within the wider surrounding countryside, including from nearby parts of the South Downs National Park.

7.7.4 Construction phase landscape and visual effects would include:

- Short-term and reversible effects arising from construction activities themselves, e.g. movement of plant and machinery fitted with flashing beacons, and the installation and operation of construction compounds (including temporary fencing and lighting)
- Short-term and reversible effects arising from digging of service trenches and associated utility works
- Short-term effects associated with material and earthwork operations and its reversible storage

- Short-term and reversible changes to the local PRoW network due to diversions and closures
- Short term and reversible effects arising from the installation of new gantries, motorway signage (including gantry-mounted signage), and once installed permanent effects arising from the presence of new gantries and motorway signage
- Short to long term partially reversible and partially permanent effects associated with works to river edges and construction of the new bridge and viaduct structures, including associated crane activities
- Short to long term partially reversible and partially permanent effects associated with construction of new and realigned carriageways and junctions
- Short to long term partially reversible and partially permanent effects associated with the construction and operation of surface water management infrastructure such as attenuation and infiltration basins
- Short to long term partially reversible and partially permanent effects associated with environmental works such as tree planting and species rich grassland, and chalk grassland establishment
- Medium to long term partially reversible and partially permanent effects associated with vegetation clearance, coppicing and pruning to facilitate construction of new/realigned roads and their junctions, and the construction of new PRoWs
- Medium to long term partially reversible and partially permanent effects associated with loss of agricultural land
- Long term partially reversible and partially permanent effects arising from landform changes including earthwork operations and material storage

7.7.5 Overall it is considered, the potential scale and significance of effect would reduce with increasing distance from the Application Boundary, with only limited indirect effects beyond approximately 1km from the Application Boundary. This professional judgment has been informed by a combination of site survey and ZTV analysis.

Operation

Landscape and visual effects

7.7.6 Operational phase landscape and visual effects would include:

- Medium to long term partially reversible and partially permanent effects associated with vegetation removal to facilitate the new / realigned roads

- Medium to long term partially reversible and partially permanent effects associated with visible vegetation changes, the presence of new/realigned roads and their junctions, the presence of the new foot/cycle bridge, and the presence of new PRoWs
- Long term permanent effects arising from landform changes
- Long term permanent effects associated with loss of agricultural land
- Long-term permanent effects arising from the presence of new gantries and motorway signage
- Long term permanent (but very small-scale) effects arising from illumination of the culverted PRoW underpasses and new gantry-mounted signage
- Beneficial long-term/permanent changes to the local PRoW network

7.8 Design, mitigation and enhancement measures

7.8.1 The principal objective of landscape mitigation is to integrate the Scheme into the local landscape to minimise adverse landscape and visual impacts with particular regard to further the purposes of the South Downs National Park, notably conserve and enhance the natural beauty, wildlife and cultural heritage of the South Downs National Park and promote opportunities for enjoyment of the special qualities of the South Downs National Park.

7.8.2 Mitigation measures incorporated into the design of the Scheme are reported as embedded mitigation in **Chapter 4 (Environmental Assessment Methodology)** of the **ES (Document Reference 6.1)**, those relevant to landscape and visual amenity are included below. This section also outlines essential mitigation required. Mitigation is outlined within the **first iteration Environmental Management Plan (fiEMP) (Document Reference 7.3**). Prior to the implementation of mitigation, the Scheme has the potential to have landscape and visual impacts during construction and operation, both beneficial and adverse.

Embedded mitigation

Construction (including site preparation)

7.8.3 Embedded construction phase mitigation measures relating to landscape and visual matters are:

- Reuse of excess earth arisings to facilitate landscape mitigation within the Application Boundary
- Retention of existing vegetation where possible, particularly established/mature woodland habitats, and measures for their protection as

detailed in **Appendix 7.5** (**Preliminary AIA**) of the **ES** (**Document Reference 6.3**).

- Use of underpasses where possible rather than elevated overpasses to reduce visual impact of the Scheme
- Retention of existing pavements where possible to reduce the extent of construction activities

Operation

7.8.4 Details of embedded operational mitigation measures are provided in the **Figure 2.3 (Environmental Masterplan)** of the **ES (Document Reference 6.2)**, and summarised below:

- Modifications to topography and landform: use of cuttings and false cuttings – to minimise visibility of the Scheme and where possible reduce visibility compared to the existing highways arrangement
- Re-profiling of existing landform to create sympathetic features and reinforce existing characteristics whilst balancing visual screening requirements
- Creation of areas of species-rich grassland with chalk grassland characteristics in locations on the west side of the M3 alignment including adjacent to proposed woodland / scrubland, where agricultural land is being lost, and on highway estate verges
- Creation of new areas of chalk grassland (east of the M3 corridor) on lower slopes of the South Downs adjacent to the highway corridor in areas undergoing land reprofiling, and areas of chalk grassland creation on the lower open downland slopes within the South Downs National Park, to maximise biodiversity benefit, and to be responsive to the location
- Beyond the permanent land-take boundary, reversion to arable agriculture to minimise long-term visibility of Scheme gained material
- Improvements to existing PRoWs with culverted and bridge crossings under/over the highways and the reconfigured gyratory roundabout, including the creation of a new walking, cycling and horse-riding (WCH) link between Easton Lane on the west side of M3 and NCN Route 23 on the east side of M3 – to address issues identified in published landscape character assessments relating to severance/separation between Winchester and the South Downs National Park
- The carriageway and junctions would not be illuminated. The M3 and A34 underpasses would be lit to a 50% of full daytime lighting level, however the exit portals of the underpasses would be unlit during the day and night-time environment.

- The gantry-mounted signage would be lit. This lighting is required for safety in accordance with Design Manual for Roads and Bridges, CD 365 Portal and cantilever signs/signals gantries. Illumination of gantry-mounted signage is designed to limit direct upward light and consider the Obtrusive Light parameters Environmental Lighting Zone E2 (gantry locations) and E1a/b (receptor locations within the South Downs National Park).

Essential mitigation

Construction (including site preparation)

7.8.5 Standard construction and operational management practices would be adopted for avoiding and reducing environmental effects. This also includes adherence to best practice measures. Measures include:

- Installation of baffles on all lighting columns with light to be angled to face works, and focused away from nearby receptors
- Where reasonably practicable guards used to protect seedlings and whips, should avoid the use of plastic in favour of biodegradable options where available
- Opportunities to reduce impacts of nearby highly sensitive visual receptors should be sought through sensitive design of construction compounds e.g. organising compound features and using earthworks / fencing to screen internal activities during the construction phase
- Standard temporary boundary fences for the main construction compound would be used. This would reduce visual intrusion, assist in noise attenuation and ensure public safety (including uninvited intruder entrance to site)

7.8.6 Further detail is provided within the **fiEMP** (**Document Reference 7.3**).

Operation

7.8.7 Details of essential operational mitigation measures are provided in the **Figure 2.3 (Environmental Masterplan)** of the **ES (Document Reference 6.2)** and summarised below:

- New woodland and scrub/shrub planting alongside new road alignments and within internal islands (planted towards the end of construction programme). Planting mixes to be selected to ensure resilience to potential climate change effects and future pest and disease threats
- Early planting (advanced planting) of new woodland and scrub/shrub planting as indicated on the **Figure 2.3 (Environmental Masterplan) of the ES (Document Reference 6.2)**

- Creation of new areas of chalk grassland on the lower open downland slopes of the South Downs National Park, on the east side of the M3 corridor

- Creation of new areas of species rich grassland with chalk grassland characteristics on cutting / embankment slopes throughout the Application Boundary, including in areas adjacent to new woodland/scrub planting, on the west side of the M3 corridor

- Typically drainage features to be seeded with marginal aquatic grass mix. The infiltration feature on the Eastern slopes to be seeded with a chalk grassland mix to integrate these features with the surrounding landscape

- Soft landscape proposals reflect local design characteristics and typically use native species which is congruous with the local area. Indicative species compositions for the proposed landscape elements are provided in the **Appendix 7.6** (**OLEMP**) of the **ES** (**Document Reference 6.3**)

- New planting for soft landscape proposals would be sourced from UK nurseries and locally available stock where reasonably practicable to help lessen the risk of introducing pests and disease

- Ongoing management and maintenance of existing and new structural planting within the highways estate to ensure successful establishment.

Enhancement

7.8.8 Enhancement is defined by DMRB LA 104 Environmental assessment and monitoring (Highways England, 2020) as *'a measure that is over and above what is required to mitigate the adverse effects of a project*'.

7.8.9 In landscape and visual terms, the extent of chalk grassland creation on the eastern slopes (adjacent to the proposed WCH bridleway) goes beyond the provision of mitigation for the effects of the Scheme and provides landscape enhancement. It positively responds to the location within the South Downs National Park and its setting and the identified environmental opportunities for this area. It does not provide a visual screening function, but it does however aid landscape integration of the Scheme with the surrounding landscape and supports biodiversity. The areas of chalk grassland are identified in **Figure 2.3 (Environmental Masterplan)** of the **ES (Document Reference 6.2).**

7.8.10 Furthermore, in landscape and visual terms the provision of improved WCH links to the South Downs National Park goes beyond the provision of mitigation for landscape and visual effects of the Scheme and provides landscape enhancement. It positively responds to the location within the South Downs National Park, the aims of the designation (promoting access and recreation), and the identified environmental opportunities for this area. The design solutions for the bridleway on the eastern slopes provides a well-considered user route which reinforces the special qualities of the South Downs National Park, whilst minimising visibility of the highway and overall achieving a varied visual

experience for future users. The placement within an area of chalk grassland also positively responds to and provides opportunity for users to experience a feature which reinforces the landscape character of the open downlands. The area of the WCH route and chalk grassland are identified on the **Figure 2.3 (Environmental Masterplan)** of the **ES (Document Reference 6.2)**.

7.9 Assessment of likely significant effects

7.9.1 This section presents the assessment of likely significant effects for construction and operation on landscape and visual receptors. The assessment of effects takes into account the potential impacts to each receptor following the implementation of embedded and essential mitigation measures to determine the significance of the residual effects.

Construction (including site preparation)

Landscape effects

7.9.2 The full assessment of likely construction phase effects is detailed in **Appendix 7.3 (Schedule of Landscape Effects)** of the **ES** (**Document Reference 6.3**). Those effects assessed as significant are summarised in **Table 7.20** and non-significant effects in **Table 7.21.** For those experiencing significant effects a summary description of the magnitude and nature of effect in accordance with the methodology is provided.

7.9.3 It should be noted that the South Downs National Park Authority LCAs and the Hampshire County LCAs broadly coincide/overlap. Where significant effects are recorded for these LCAs, the same effect is being recorded twice (effectively double counting the effect), rather than the effect occurring in different character areas.

7.9.4 Construction phase significant effects on landscape character would be limited to designated landscapes and landscape character areas and features which would undergo direct effects because the Scheme lies within or partially within the relevant landscape receptor. For effects on landscape character , the scale and significance of effect reduces with increasing distance from the Application Boundary, with only limited indirect effects beyond approximately 1km from the Application Boundary.

Table 7.20: Construction phase significant landscape effects

Receptor	Sensitivity	Magnitude and nature of effect		Effect and significance
Designated landscapes				
South Downs National Park	Very High	*Size / scale:* Small ■ Small-scale use of arable farmland for construction compounds and spoil management and small-scale conversion of arable farmland to new woodland/ scrub/shrub planting and chalk grassland. Resulting in slight loss to the farmland a recognised special quality ■ Small-scale changes to the topography on the lower slopes of the South Downs National Park. Operations resulting in slight damage to opportunities for breath taking views and the diverse and inspirational landscape special qualities ■ Small-scale changes arising from the construction/installation of new gantries, Variable Message Signs (VMS) and motorway signage, resulting in slight damage in opportunities to experience breath taking views ■ Small-scale loss of trees and scrub/shrubs, which contribute to the special quality of a rich variety of habitats ■ Medium-scale creation/realignment of roads and reconfiguration of the existing gyratory roundabout, and to the	South Downs National Park overall Direct and indirect / experiential - Minor adverse	South Downs National Park overall **Moderate adverse - Significant**

Receptor	Sensitivity	Magnitude and nature of effect		Effect and significance
		local PRoW network. This would result in effects on opportunities to experience the special qualities of breath taking views, tranquillity and recreational access *Geographical Extent:* Localised with limited effects within the wider South Downs National Park out to approximately 2km from the Application Boundary *Duration / Reversibility:* ■ Construction activities would be short-term (3 years) and reversible. Short-term/ reversible changes to the local PRoW network due to diversions and closures ■ Medium to long term partially reversible and partially permanent effects associated with vegetation removal ■ Long term permanent effects arising from landform changes and the installation of the new / realigned highway, and infrastructure <u>Night-time environment / Dark Skies</u>		

Receptor	Sensitivity	Magnitude and nature of effect		Effect and significance
		The majority of construction activities would take place during the hours of daylight. There would however be some night-time activity for particular specialist operations, as well as security and safety lighting at the temporary construction compounds. All lighting relating to construction activities would be short-term and reversible and result in effects on dark skies within the Application Boundary and its immediate environs.		
South Downs National Park LCAs				
LCA A5: East Winchester Open Downs	Very high	*Size / scale:* Medium ■ Small-scale use of arable farmland for construction compounds and spoil management (temporary storage areas), loss of trees and scrub/shrubs, conversion of arable and pastoral farmland adjacent to the highway alignment, and from the construction/installation of new gantries / VMS / motorway signage, and to the topography of the lower slopes of the Downs ■ Medium-scale creation/realignment of roads and reconfiguration of the existing gyratory roundabout, and to the local PRoW network due to diversions and closures necessary to facilitate the implementation of the Scheme	Direct and indirect/ experiential – Moderate adverse	**Large adverse Significant**

Receptor	Sensitivity	Magnitude and nature of effect		Effect and significance
		Geographical Extent: Localised with limited effects within the wider LCA out to approximately 2km from the Application Boundary *Duration / Reversibility:* ■ Construction activities would be short-term (3 years) and reversible. ■ Short-term/ reversible changes to the local PRoW network due to diversions and closures. ■ Medium to long term partially reversible and partially permanent effects associated with vegetation changes and new/ realigned roads. ■ Long term permanent effects arising from landform changes and from the installation of new gantries / VMS and motorway signage.		

Receptor	Sensitivity	Magnitude and nature of effect		Effect and significance
LCA F5: Itchen Floodplain	Very high	*Size / scale:* Small. ■ Small-scale changes from creation/realignment of roads, and changes arising from the construction/installation of new retaining walls / VMS and motorway signage ■ Small to medium scale loss of trees and scrub / shrubs, predominantly within the existing highways estate ■ Medium-scale changes to the local PRoW network due to diversions and closures necessary to facilitate the implementation of the Scheme *Geographical Extent:* Localised, with limited indirect effects experienced from restricted locations within the wider LCA out to approximately 1km from the Application Boundary *Duration / Reversibility:* ■ Construction activities would be short-term (3 years) and reversible. ■ Short-term/ reversible changes to the local PRoW network due to diversions and closures. ■ Medium to long term partially reversible and partially permanent effects associated with vegetation removal and new / realigned roads. ■ Long term permanent effects arising from landform changes.	Direct and indirect/ experiential - Minor adverse	**Moderate adverse Significant**

Receptor	Sensitivity	Magnitude and nature of effect		Effect and significance
LCA G5: Itchen Valley Sides	Very high	*Size / scale:* Small ■ Small-scale reversible use of arable farmland for construction activities and spoil management ■ Small-scale conversion of arable farmland, creation of areas of species-rich grassland, changes arising from the construction of new retaining walls / gantries / VMS / motorway signage, and changes to the topography, loss of trees and scrub / shrubs, creation/realignment of roads, reconfiguration of the existing gyratory roundabout, construction of the new A33 roundabout, changes to the local PRoW network. *Geographical Extent:* Localised, with limited indirect effects experienced from restricted locations within the wider LCA out to approximately 1km from the Application Boundary *Duration / Reversibility:* ■ Construction activities would be short-term (3 years) and reversible. ■ Short-term/ reversible changes to the local PRoW network due to diversions and closures.	Direct and indirect/ experiential - Minor adverse	**Moderate adverse Significant**

Receptor	Sensitivity	Magnitude and nature of effect		Effect and significance
		▪ Medium to long term partially reversible and partially permanent effects associated with vegetation changes and new / realigned roads. ▪ Long term permanent effects arising from landform changes and from the installation of new gantries / VMS and motorway signage.		
Hampshire County LCAs and TCAs				
LCA: 3C Itchen Valley	High	*Size / scale:* Medium ▪ Small-scale use of arable farmland for construction and spoil management, conversion of arable farmland, changes arising from the construction/installation of new gantries / VMS and motorway signage. ▪ Small to medium scale loss of trees and scrub/shrubs (including partial loss of TPO 00039-2003-TPO) predominantly within the existing highways estate ▪ Medium scale creation/realignment of roads, reconfiguration of the existing gyratory roundabout, and construction of the new A33 roundabout and associated link roads, and changes to the local PRoW network due to diversions and closures necessary to facilitate the implementation of the Scheme	Direct and indirect/ experiential Moderate adverse	**Moderate adverse Significant**

Receptor	Sensitivity	Magnitude and nature of effect		Effect and significance
		Geographical Extent: Localised direct effects with limited indirect effects within the wider LCA out to approximately 1km from the Application Boundary *Duration / Reversibility:* Construction activities would be short-term (3 years) and reversible. Short-term/ reversible changes to the local PRoW network due to diversions and closures Medium to long term partially reversible and partially permanent effects associated with vegetation changes and new/ realigned roads. Long term permanent effects arising from landform changes, from the installation of new retaining walls / gantries / VMS and motorway signage.		
LCA 8G: East Winchester Open Downs	Very high	*Size / scale:* Small ■ Small-scale use of arable farmland for construction compounds and spoil management (temporary storage areas), loss of trees and scrub/shrubs (including partial loss of an important hedgerow on Easton Lane), conversion of arable farmland, and changes arising from the construction/installation of new gantries / VMS and motorway signage, and changes to the topography, creation/realignment of roads, reconfiguration of the existing gyratory roundabout, and construction of the new	Direct and indirect/ experiential - Minor adverse	**Moderate adverse Significant**

Receptor	Sensitivity	Magnitude and nature of effect		Effect and significance
		A33 roundabout, and changes to the local PRoW network due to diversions and closures necessary to facilitate the implementation of the Scheme *Geographical Extent:* Localised with limited effects within the wider LCA out to approximately 2km from the Application Boundary *Duration / Reversibility:* ■ Construction activities would be short-term (3 years) and reversible. ■ Short-term/ reversible changes to the local PRoW network due to diversions and closures ■ Medium to long term partially reversible and partially permanent effects associated with vegetation removal and new/ realigned roads ■ Long term permanent effects arising from landform changes, from the installation of new retaining walls / gantries / VMS and motorway signage.		
Landscape Character within the Application Boundary				
Land beyond the existing highway estate within	Very High	*Size / scale:* Medium ■ Small-scale changes arising from the construction/installation of new gantries / VMS and	Direct and indirect/ experiential -	**Large adverse Significant**

Receptor	Sensitivity	Magnitude and nature of effect		Effect and significance
the Application Boundary (all within the South Downs National Park)		motorway signage, and to the topography adjacent to the existing highway ■ Small to medium scale loss of trees and scrub/shrubs ■ Medium-scale creation/realignment of roads and reconfiguration of the existing gyratory roundabout, and changes to the local PRoW network due to diversions and closures necessary to facilitate the implementation of the Scheme *Geographical Extent:* Localised *Duration / Reversibility:* ■ Construction activities would be short-term (3 years) and reversible ■ Short-term/ reversible changes to the local PRoW network due to diversions and closures ■ Medium to long term partially reversible and partially permanent effects associated with vegetation changes and new/ realigned roads ■ Long term permanent effects arising from landform changes and from the installation of new gantries / VMS and motorway signage.	Moderate adverse	

Receptor	Sensitivity	Magnitude and nature of effect		Effect and significance
Landscape Features within the Application Boundary				
Topography	High	*Size / scale:* Medium ■ Engineered topography within the existing roads alignments would be altered as required to create the necessary levels and gradients to allow the proposed new road layout to function. ■ Earthworks and landform re-modelling would directly affect the topography immediately adjacent to the highway alignment, with the creation of engineered embankments and cutting slopes, new retaining walls and structures ■ Landform reprofiling would also occur on the lower slopes of the Downs in the immediate vicinity of the existing road alignments *Geographical Extent:* Localised *Duration / Reversibility:* ■ Construction activities would be short-term (3 years) and reversible ■ Long term permanent effects arising from landform changes	Direct Moderate adverse	**Moderate adverse** **Significant**
Existing trees, woodlands	Medium	*Size / scale:* ■ Medium scale loss, predominantly within the existing highways estate	Direct Moderate adverse	**Moderate adverse** **Significant**

Receptor	Sensitivity	Magnitude and nature of effect		Effect and significance
and hedgerows		*Geographical Extent:* Localised direct effects *Duration / Reversibility:* ■ Construction activities would be short-term (3 years) and reversible. ■ Medium to long term partially reversible and partially permanent effects associated with vegetation changes.		
Watercourses	High	*Size / scale:* Small ■ Very small scale changes to the existing road bridges ■ Small-scale use of riverside farmland for construction activities, loss of trees and scrub / shrubs, predominantly within the existing highways estate these features adjacent to the River Itchen, installation of supporting structures for the new footbridge, and the new bridge itself, and changes associated with installation of new drainage connections into the river, and creation of areas of species-rich grassland between the M3 and the A33/A34 *Geographical Extent:* Localised, with limited indirect effects experienced from restricted locations within the wider area out to approximately 1km from the Application Boundary	Direct and Indirect / experiential Moderate adverse	**Moderate adverse Significant**

Receptor	Sensitivity	Magnitude and nature of effect		Effect and significance
		Duration / Reversibility: ■ Construction activities would be short-term (3 years) and reversible ■ Medium to long term partially reversible and partially permanent changes arising from the installation of the new footbridge and any visible changes to the existing road bridges, and from the installation of the new drainage connections		
Agricultural land	High	*Size / scale:* Medium ■ Small-scale use of arable farmland for construction compounds and spoil management (temporary storage areas), and conversion of arable farmland adjacent to the highway alignment to new woodland/ scrub/shrub planting and species rich grassland creation including chalk grassland *Geographical Extent:* Localised direct effects *Duration / Reversibility:* ■ Construction activities would be short-term (3 years) and reversible	Direct Moderate adverse	**Moderate adverse Significant**

Receptor	Sensitivity	Magnitude and nature of effect		Effect and significance
		▪ Short-term/ reversible changes with loss of agricultural land for construction activities, including compounds and haul routes ▪ Medium to long term permanent effects associated with loss of agricultural land for new infrastructure and landscape mitigation planting		
PRoW network / local connectivity	High	*Size / scale:* Large ▪ Medium-scale short-term and reversible effects on the tranquillity of routes crossing land within or close to the Application Boundary, particularly where these are close to construction activities, and on connectivity between Winchester and the South Downs National Park ▪ Large-scale short-term and reversible physical disruption of diverted routes *Geographical Extent:* Localised, with limited indirect/experiential effects on the local PRoW network as a whole *Duration / Reversibility:* ▪ Construction activities would be short-term (3 years) and reversible.	Direct and indirect/ experiential Moderate adverse (*for routes directly affected*)	**Moderate adverse Significant**

Receptor	Sensitivity	Magnitude and nature of effect		Effect and significance
		▪ Creation of new routes and enhancements to existing routes would be long-term and permanent		

7.9.5 The landscape assessment concludes that effects on the South Downs National Park designation and its special qualities would result in Moderate adverse effects which are significant during the construction phase.

7.9.6 This acknowledges that construction activities would result in a series of incongruous activities within a small part of the South Downs National Park on its western boundary, The potential for direct effects on the South Downs National Park is however limited to 0.04% of the total land area of the South Downs National Park (out of 162,226ha), with the potential for short-term and reversible indirect perceptual or experiential effects occurring over a larger, but focused part of the western end of the South Downs National Park. These indirect effects would be experienced over an area from where the existing roads are already visible.

7.9.7 In addition to effects on the designation and special qualities the assessment concludes that on local landscape character within the South Downs National Park effects would be Large and Moderate adverse and significant due to the localised direct effects within the Application Boundary and limited extent of indirect / experiential effects beyond. The assessment concludes that landscape character for land beyond the existing highway estate (all within the South Downs National Park) within the Application Boundary would result in Large adverse and significant adverse effect. On landscape features including those within the South Downs National Park the assessment concludes Moderate adverse and significant effects on the landscape features of topography, watercourses, agricultural land and the PRoW network. This acknowledges a series of direct, short-term and reversible effects, within the Application Boundary and its immediate environs.

7.9.8 The full assessment of likely construction phase effects for receptors experiencing effects which are not significant is detailed in **Appendix 7.3 (Schedule of Landscape Effects)** of the **ES** (**Document Reference 6.3**). The overall effects are summarised in **Table 7.21** below**.**

Table 7.21: Construction phase non-significant landscape effects

Receptor	Sensitivity	Magnitude and nature of effect	Effect and significance
Designated Landscapes			
Magdalen Hill Cemetery Grade II RPG	High	No change	Neutral Not significant
Avington Park Grade II* RPG	High	No change	Neutral Not significant
Worthy Park	Medium	Indirect/ experiential Negligible adverse	Slight Not significant
Protected trees and vegetation (Tree Preservation Orders (TPOs) and Important Hedgerows)	High	Direct Negligible adverse	Slight adverse Not significant
Hampshire County LCAs/TCAs			
LCA 8E: Mid Hampshire Open Downs	Medium	No change	Neutral Not significant
LCA 7B: Hannington and Dummer Downs	Medium	No change	Neutral Not significant
LCA 7F: West Winchester Downs	Medium	No change	Neutral Not significant
TCA 8a: Winnall Trading Estate	Low	Direct and indirect/ experiential Moderate adverse	Slight adverse Not significant
TCA 5: Riverside	High	No change	Neutral and not significant
TCA 6a: St Giles' Hill	Medium	No change	Neutral and not significant
TCA 6b: Winnall	Low	No change	Neutral and not significant

Receptor	Sensitivity	Magnitude and nature of effect	Effect and significance
TCA 6c: Highcliffe	Low	No change	Neutral and not significant
Landscape Character within the Application Boundary			
Land within the Application Boundary which forms the existing highway estate	Low	Direct Moderate adverse	Slight adverse Not significant

Effects on visual amenity

7.9.9 The full assessment of likely construction phase effects is detailed in **Appendix 7.4** (**Schedule of Visual Effects**) of the **ES** (**Document Reference 6.3**). Those effects assessed as significant are summarised in **Table 7.22**, and non-significant effects in **Table 7.23.** For those experiencing significant effects a summary description of the magnitude and nature of effect in accordance with the methodology is provided.

7.9.10 Significant construction phase effects on visual amenity would predominantly be limited to receptors within approximately 1km of the Application Boundary, with many of the affected receptors being much closer than this. Only VL17 beyond 1km would undergo significant effects – with receptors visiting the tower of Winchester Cathedral where long-distance panoramic views can be obtained.

Table 7.22: Construction phase significant visual effects

View location	Sensitivity	Magnitude and nature of effect		Effect and significance
VL 1	Very high	*Size / scale:* Large *Geographical Extent:* Moderate *Duration / Reversibility:* Construction activities short term, and reversible. Moderate to long term partially reversible and permanent effects associated with vegetation loss (and later replacement), landform re-profiling, new road alignments and junction and the installation of new VMS.	Major adverse	**Very Large adverse** **Significant**
VL 3	Very high	*Size / scale:* Moderate *Geographical Extent:* Moderate *Duration / Reversibility:* Construction activities short term, and reversible. Moderate to long term partially reversible and permanent effects associated with limited vegetation loss (and later replacement), landform re-profiling, construction of retaining walls, construction of new footway and cycleway (and bridge), reconfiguration of the A34/A33 junction, the installation of new VMS, and construction of infiltration and attenuation basins.	Moderate adverse	**Large adverse** **Significant**

View location	Sensitivity	Magnitude and nature of effect		Effect and significance
VL 4	High	*Size / scale:* Moderate *Geographical Extent:* Moderate *Duration / Reversibility:* Construction activities short term, and reversible. Moderate to long term partially reversible and permanent effects associated with vegetation loss (and later replacement), landform re-profiling, new road alignments and junction and the installation of new VMS.	Moderate adverse	**Moderate adverse** **Significant**
VL 6 (a)	Moderate	*Size / scale:* Moderate *Geographical Extent:* Moderate *Duration / Reversibility:* Construction activities would be short-term (3 years) and reversible. Short-term/ reversible changes to the local PRoW network due to diversions and closures. Moderate to long term partially reversible and partially permanent effects associated with vegetation removal and new/ realigned roads. Long term permanent effects arising from landform changes, and from the installation of new gantries and VMS.	Moderate adverse	**Moderate adverse** **Significant**

View location	Sensitivity	Magnitude and nature of effect		Effect and significance
VL 7	High	*Size / scale:* Small *Geographical Extent:* Moderate *Duration / Reversibility:* Construction activities would be short-term (3 years) and reversible. Short-term/ reversible changes to the local PRoW network due to diversions and closures Moderate to long term partially reversible and partially permanent effects associated with vegetation changes and new/ realigned roads. Long term permanent effects arising from landform changes and from the installation of new VMS and motorway signage.	Minor adverse	**Moderate adverse** **Significant**
VL 8	Very high	*Size / scale:* Moderate *Geographical Extent:* Moderate *Duration / Reversibility:* Construction activities would be short-term (3 years) and reversible. Short-term/ reversible changes to the local PRoW network due to diversions and closures Moderate to long term partially reversible and partially permanent effects associated with vegetation changes and new/ realigned roads. Long term permanent effects arising from landform changes, and from the installation of new gantries / VMS and motorway signage.	Moderate adverse	**Large adverse** **Significant**

View location	Sensitivity	Magnitude and nature of effect		Effect and significance
VL 12	Low	*Size / scale:* Large *Geographical Extent:* Large *Duration / Reversibility:* Construction activities short term (3 years), and reversible, including short-term/ reversible changes to the local PRoW network from diversions and closures. Moderate to long term partially reversible and permanent effects associated with vegetation loss (and later replacement), landform re-profiling, and new road alignments and junction. Long-term permanent changes to the local PRoW network due to new and realigned routes and road crossings	Major adverse	**Moderate adverse** **Significant**
VL 13	High	*Size / scale:* Moderate *Geographical Extent:* Moderate *Duration / Reversibility:* Construction activities would be short-term (3 years) and reversible, including changes to the local PRoW network due to diversions and closures and due to lighting from the main site compound. Moderate to long term partially reversible and partially permanent effects associated with vegetation changes and new/ realigned roads. Long term permanent effects arising from landform changes, and from the installation of new gantries / VMS and motorway signage.	Moderate adverse	**Moderate adverse** **Significant**

View location	Sensitivity	Magnitude and nature of effect		Effect and significance
VL 14	High	*Size / scale:* Large *Geographical Extent:* Moderate *Duration / Reversibility:* Construction activities would be short-term (3 years) and reversible. Short-term/ reversible changes to the local PRoW network due to diversions and closures Moderate to long term partially reversible and partially permanent effects associated with vegetation changes and new/ realigned roads. Long term permanent effects arising from landform changes, and from the installation of new VMS and motorway signage.	Major adverse	**Large adverse** **Significant**
VL 16	Moderate	*Size / scale:* Moderate *Geographical Extent:* Large *Duration / Reversibility:* Construction activities would be short-term (3 years) and reversible. Short-term/ reversible changes to the local PRoW network due to diversions and closures. Moderate to long term partially reversible and permanent effects associated with vegetation and road changes Long term permanent effects arising from landform changes, and from the installation of new VMS / gantries and motorway signage.	Moderate adverse	**Moderate adverse** **Significant**

View location	Sensitivity	Magnitude and nature of effect		Effect and significance
VL 17	Very high	*Size / scale:* Small *Geographical Extent:* Small *Duration / Reversibility:* Construction activities would be short-term (3 years) and reversible. Moderate to long term partially reversible and partially permanent effects associated with vegetation changes and new/ realigned roads. Long term permanent effects arising from landform changes and from the installation of new gantries.	Minor adverse	**Moderate adverse** **Significant**

7.9.11 The full assessment of likely construction phase effects for receptors experiencing effects which are not significant is detailed in **Appendix 7.4** (**Schedule of Visual Effects**) of the **ES** (**Document Reference 6.3**). The overall effects are summarised in **Table 7.23** below**.**

Table 7.23: Construction phase non-significant visual effects

View location	Sensitivity	Magnitude and nature of effect	Effect and significance
VL 2	High	Negligible adverse	Slight adverse Not significant
VL 5	Moderate	Minor adverse	Slight adverse Not significant
VL 6 (b)	Moderate	Negligible adverse	Neutral Not significant
VL 9	Very high	Negligible adverse	Slight adverse Not significant
VL 10	Moderate	Minor adverse	Slight adverse Not significant

View location	Sensitivity	Magnitude and nature of effect	Effect and significance
VL 11	Very high	Negligible adverse	Slight adverse Not significant
VL 15	Moderate	Minor adverse	Slight adverse Not significant
VL 18	Moderate	Negligible adverse	Slight adverse Not significant
VL 19	High	Negligible adverse	Slight adverse Not significant
VL 19b	Very High	Negligible adverse	Slight adverse Not significant
VL 20	Moderate	Negligible adverse	Slight adverse Not significant
VL 21	Moderate	No change	Neutral Not significant
VL 22	Moderate	No change	Neutral Not significant
VL 23	Very high	Negligible adverse	Slight adverse Not significant
VL 24	Very high	No change	Neutral Not significant

Operation

Landscape effects

7.9.12 The full assessment of likely operation phase effects at year 1 and year 15 is detailed in **Appendix 7.3** (**Schedule of Landscape Effects**) of the **ES** (**Document Reference 6.3**).

7.9.13 Operational effects at year 1, consider a winter's day in the year that the Scheme would open to traffic and be fully operational (i.e. with earthworks in place but before any planting mitigation becomes effective) with all construction activity completed. This reflects a worst-case scenario in which the Scheme is in operation and most visible.

7.9.14 Those effects assessed as significant are summarised in **Table 7.24** and non-significant effects in **Table 7.25** for winter year 1 below. Operational phase

significant effects on landscape receptors at year 1 are limited to designated landscapes and landscape character areas and features which would undergo direct effects because the Scheme lies within or partially within the relevant landscape receptor. For those receptors experiencing significant effects a summary description of the magnitude and nature of effect in accordance with the methodology is provided.

7.9.15 Operational effects at year 15 consider a summer's day, 15 years after opening (i.e. when the planting mitigation measures can be assumed to be substantially effective). This is usually a reflection of the near fully mitigated scenario under normal conditions. No significant effects upon landscape character or features are reported for summer year 15. Effects for landscape receptors are summarised in **Table 7.26**.

Table 7.24: Operation phase significant landscape effects – winter year 1

Receptor	Sensitivity	Magnitude and nature of effect		Effect and significance
Designated landscapes				
South Downs National Park	Very High	South Downs National Park overall *Size / scale:* Small ▪ Small-scale conversion of farmland (special quality) ▪ Continued small-scale loss of vegetation, which contribute to rich variety of habitats (special quality) ▪ Small-scale changes to the topography resulting in damage to inspirational landscape special quality ▪ Small-scale changes from presence of new gantries / VMS / signage and small to medium-scale changes from creation/realignment of roads, resulting in damage to breath taking view special quality ▪ Small to medium-scale -scale beneficial changes to the local PRoW network through the creation of new WCH routes and enhancement of existing routes. *Geographical Extent*: Localised with limited effects within the wider South Downs National Park out to approximately 2km from the Application Boundary.	Direct and Indirect/ experiential - Minor adverse	South Downs National Park overall: **Moderate adverse - Significant**

Receptor	Sensitivity	Magnitude and nature of effect		Effect and significance
		South Downs National Park overall (contd) Duration / *Reversibility*: ▪ Medium to long term partially reversible and partially permanent effects associated with vegetation removal. ▪ Long term permanent (very small-scale) effects arising from landform changes, the new / realigned roads, associated infrastructure and new gantry / VMS and motorway signage, and illumination of the underpasses and gantries ▪ Beneficial long-term/permanent changes to the local PRoW network. Night-time Environment / Dark Skies Light levels arising from traffic would be broadly similar to that which occurred before the implementation of the Scheme resulting in no discernible change to the baseline Environmental Light Zones. Light levels would increase within the new underpasses and gantry mounted illuminated signage; however, with the underpasses the orientation / surrounding landform / screening means the change will be		

Receptor	Sensitivity	Magnitude and nature of effect		Effect and significance
		very small scale with obtrusive light limited. For the gantries new elevated light sources would be visible but these features have been designed to be in accordance with guidelines. As the gantry-mounted illuminated signage is outside the South Downs National Park boundary and meets the requirements of the South Downs National Park Authority's Dark Skies Technical Advice Note (TAN) it is not considered this will reduce the quality of dark night skies from this receptor.		
South Downs National Park LCAs				
LCA A5: East Winchester Open Downs	Very high	*Size / scale:* Small ■ Very small-scale long-term/permanent illumination of the PRoW underpasses, with lighting designed to minimise light-spill. ■ Small-scale conversion of arable farmland adjacent to the highway alignment and woodland / scrub / shrub planting, and species rich grassland with chalk grassland characteristics, and chalk grassland to the topography of the lower slopes of the South Downs National Park, and arising from the presence of new retaining walls / gantries (including illumination of gantry-mounted signage) / VMS and motorway signage	Direct and indirect/ experiential - Minor adverse	**Moderate adverse** **Significant**

Receptor	Sensitivity	Magnitude and nature of effect		Effect and significance
		▪ Medium-scale creation/realignment of roads and reconfiguration of the existing gyratory roundabout ▪ Medium-scale beneficial changes to the local PRoW network through the creation of new WCH routes and enhancement of existing routes to improve connectivity between the city of Winchester and the South Downs National Park *Geographical Extent:* Localised with limited effects within the wider LCA out to approximately 2km from the Application Boundary *Duration / Reversibility:* ▪ Medium to long term partially reversible and partially permanent effects associated with vegetation changes and new/ realigned roads. ▪ Long term permanent effects arising from landform changes, from the installation of new retaining walls / gantries / VMS and motorway signage, from illumination of the PRoW underpasses and gantry-mounted signage and those arising from landform changes. Beneficial long-term/permanent changes to the local PRoW network.		

Receptor	Sensitivity	Magnitude and nature of effect		Effect and significance
LCA G5: Itchen Valley Sides	Very high	*Size / scale:* Small ■ Small-scale conversion of arable farmland on east side of M3 alignment to woodland/ scrub/shrub planting and species rich grassland with chalk grassland characteristics. ■ Small-scale creation of species-rich grassland on west side of M3 ■ Small-scale changes to the topography of the lower slopes of the South Downs immediately adjacent to the highway alignment ■ Small-scale changes arising from the presence of new retaining walls / gantries / VMS / motorway signage ■ Small-scale creation/realignment of roads, and construction of the new A33 roundabout ■ Small-scale beneficial long-term/permanent changes to the local PRoW network through the creation of new WCH routes and enhancement of existing routes to improve connectivity between the city of Winchester and the South Downs National Park *Geographical Extent:* Localised with limited effects within the wider LCA out to approximately 1km from the Application Boundary *Duration / Reversibility:*	Direct and indirect/ experiential - Minor adverse	**Moderate adverse** **Significant**

Receptor	Sensitivity	Magnitude and nature of effect		Effect and significance
		▪ Medium to long term partially reversible and partially permanent effects associated with vegetation changes and new/ realigned roads. ▪ Long term permanent effects arising from landform changes, from the installation of new retaining walls / gantries / VMS and motorway signage, from illumination of the PRoW underpasses and gantry-mounted signage, and arising from landform changes ▪ Beneficial long-term/permanent changes to the local PRoW network.		
Landscape Character within the Application Boundary				
Land beyond the existing highway estate within the Application Boundary (all within the South Downs	Very High	*Size / scale:* Small ▪ Very small-scale long-term/permanent illumination of the PRoW, M3 and A34 underpasses, with lighting designed to minimise light-spill. ▪ Small-scale conversion of arable farmland, creation of species-rich grassland on west side of M3, changes to the topography of the lower slopes of the Downs, and changes arising from the presence of new retaining walls / gantries / VMS and motorway signage	Direct and indirect / experiential - Minor adverse	**Moderate adverse Significant**

Receptor	Sensitivity	Magnitude and nature of effect		Effect and significance
National Park)		▪ Medium-scale creation/realignment of roads, reconfiguration of the existing gyratory roundabout, and construction of the new A33 roundabout, and beneficial changes to the local PRoW network through the creation of new walking, cycling and horse riding routes and enhancement of existing routes to improve connectivity *Geographical Extent:* Localised with limited effects within the wider South Downs National Park out to approximately 2km from the Application Boundary *Duration / Reversibility:* ▪ Medium to long term partially reversible and partially permanent effects associated with vegetation changes and new/ realigned roads. ▪ Long term permanent effects arising from landform changes, installation of new retaining walls / gantries / VMS and motorway signage, and illumination of the underpasses and gantry-mounted signage. ▪ Beneficial long-term/permanent changes to the local PRoW network.		

Receptor	Sensitivity	Magnitude and nature of effect		Effect and significance
Landscape Features within the Application Boundary				
Existing trees, woodlands and hedgerows	Medium	*Size / scale:* ▪ Medium scale losses to vegetation (which have occurred during construction phase). *Geographical Extent*: Localised direct effects *Duration / Reversibility:* Medium to long term partially reversible and partially permanent effects associated with vegetation changes	Direct - Moderate adverse	**Moderate adverse** **Significant**

7.9.16 The landscape assessment concludes that effects on the South Downs National Park designation and its special qualities would result in Moderate adverse and significant effects during the operational phase at year 1. This acknowledges the small scale changes and localised geographical extent where effects occur when considering the designated landscape (0.04% of the total land area of the South Downs National Park). The assessment concludes there would be no discernible change to the baseline Environmental Light Zones and it is considered the quality of dark night skies will be maintained.

7.9.17 The assessment acknowledges localised direct effects within the Application Boundary and limited indirect effects beyond on local landscape character would be Moderate adverse and significant at year 1. A Moderate adverse and significant effect on landscape character for the land beyond the existing highway estate (but within the South Downs National Park) within the Application Boundary, is also reported. This acknowledge the medium to long term small scale localised changes and direct effects on the landscape, its feature and character within the Application Boundary and its immediate environs.

7.9.18 The full assessment of likely operational phase effects at year 1 for receptors experiencing effects which are not significant is detailed in **Appendix 7.3 (Schedule of Landscape Effects)** of the **ES** (**Document Reference 6.3**). The overall effects are summarised in **Table 7.25** below**.**

Table 7.25: Operation phase non-significant landscape effects – winter year 1

Receptor	Sensitivity	Magnitude and nature of effect	Effect and significance
Designated landscapes			
Magdalen Hill Cemetery Grade II RPG	High	No change	Neutral Not significant
Avington Park Grade II* RPG	High	No change	Neutral Not significant
Worthy Park	Medium	Indirect/ experiential Negligible adverse	Slight adverse Not significant
Protected trees and vegetation (Tree Preservation Orders (TPOs) and Important Hedgerows)	High	Direct Negligible adverse	Slight adverse - Not significant

Receptor	Sensitivity	Magnitude and nature of effect	Effect and significance
South Downs National Park LCAs			
LCA F5: Itchen Floodplain	Very high	Direct and indirect/ experiential Negligible adverse	Slight adverse Not significant
Hampshire County LCAs and TCAs			
LCA 3C: Itchen Valley	High	Direct and indirect/ experiential Minor adverse	Slight adverse Not significant
LCA 8G: East Winchester Open Downs	Very high	Direct and indirect/ experiential Negligible adverse	Slight adverse Not significant
LCA 8E: Mid Hampshire Open Downs	Medium	No change	Neutral Not significant
LCA 7B: Hannington and Dummer Downs	Medium	No change	Neutral Not significant
LCA 7F: West Winchester Downs	Medium	No change	Neutral Not significant
TCA 8a: Winnall Trading Estate	Low	Direct and indirect/ experiential Minor adverse	Slight adverse Not significant
TCA 5: Riverside	High	No change	Neutral Not significant
TCA 6a: St Giles' Hill	Medium	No change	Neutral Not significant
TCA 6b: Winnall	Low	No change	Neutral Not significant
TCA 6c: Highcliffe	Low	No change	Neutral Not significant
Landscape Character within the Application Boundary			

Receptor	Sensitivity	Magnitude and nature of effect	Effect and significance
Land within the Application Boundary which forms the existing highway estate	Low	Direct Moderate adverse	Slight adverse Not significant
Landscape Features within the Application Boundary			
Topography	High	Direct Minor adverse	Slight adverse Not significant
Watercourses	High	Direct and indirect/ experiential Minor adverse	Slight adverse Not significant
Agricultural land	High	Direct Minor adverse	Slight adverse Not significant
PRoW network	High	Direct and indirect/ experiential Negligible adverse	Negligible adverse Not significant

7.9.19 By year 15, the growth of the proposed structural planting would result in no significant effects on any landscape receptors.

Table 7.26: Operation phase non-significant landscape effects – summer year 15

Receptor	Sensitivity	Magnitude and nature of effect	Effect and significance
Designated landscapes			
South Downs National Park	Very high	South Downs National Park overall Direct and indirect / experiential - Negligible adverse	South Downs National Park overall Slight adverse - Not significant
Magdalen Hill Cemetery Grade II RPG	High	No change	Neutral Not significant
Avington Park Grade II* RPG	High	No change	Neutral Not significant

Receptor	Sensitivity	Magnitude and nature of effect	Effect and significance
Worthy Park	Medium	No change	Neutral Not significant
Protected trees and vegetation (TPOs and Important Hedgerows)	High	Direct Negligible adverse	Slight adverse Not significant
South Downs National Park LCAs			
LCA A5: East Winchester Open Downs	Very high	Direct and indirect/ experiential Negligible adverse	Slight adverse Not significant
LCA F5: Itchen Floodplain	Very high	Direct and indirect/ experiential Negligible adverse	Slight adverse Not significant
LCA G5: Itchen Valley Sides	Very high	Direct and indirect/ experiential Negligible adverse	Slight adverse Not significant
Hampshire County LCAs and TCAs			
LCA 3C: Itchen Valley	High	Direct and indirect/ experiential Negligible adverse	Slight adverse Not significant
LCA 8G: East Winchester Open Downs	Very high	Direct and indirect/ experiential Negligible adverse	Slight adverse Not significant
LCA 8E: Mid Hampshire Open Downs	Medium	No change	Neutral Not significant
LCA 7B: Hannington and Dummer Downs	Medium	No change	Neutral Not significant
LCA 7F: West Winchester Downs	Medium	No change	Neutral Not significant

Receptor	Sensitivity	Magnitude and nature of effect	Effect and significance
TCA 8a: Winnall Trading Estate	Low	Direct and indirect/ experiential Minor adverse	Slight adverse Not significant
TCA 5: Riverside	High	No change	Neutral Not significant
TCA 6a: St Giles' Hill	Medium	No change	Neutral Not significant
TCA 6b: Winnall	Low	No change	Neutral Not significant
TCA 6c: Highcliffe	Low	No change	Neutral Not significant
Landscape Character within the Application Boundary			
Land within the Application Boundary which forms the existing highway estate	Low	Direct Minor adverse	Neutral Not significant
Land beyond the existing highway estate within the Application Boundary (all within the South Downs National Park)	Very high	Direct and indirect/ experiential Negligible adverse	Slight adverse Not significant
Landscape Features within the Application Boundary			
Topography	High	Direct Minor adverse	Slight adverse Not significant
Existing trees, woodlands and hedgerows	Medium	Direct Minor adverse	Slight adverse Not significant
Watercourses	High	Direct and indirect/ experiential	Slight adverse

Receptor	Sensitivity	Magnitude and nature of effect	Effect and significance
		Negligible adverse	Not significant
Agricultural land	High	Direct Minor adverse	Slight adverse Not significant
PRoW network	High	Direct and indirect/ experiential Minor beneficial	Slight beneficial Not significant

Effects on visual amenity

7.9.20 The full assessment of likely operation phase effects at year 1 and year 15 is detailed in **Appendix 7.4** (**Schedule of Visual Effects**) of the **ES** (**Document Reference 6.3**).

7.9.21 Operational effects at year 1, consider a winter's day in the year that the Scheme would open to traffic or be fully operational (i.e. with earthworks in place but before any planting mitigation becomes effective) with all construction activity completed. This reflects the worst-case scenario in which the Scheme is in operation and most visible.

7.9.22 Operational effects at year 15 consider a summer's day, 15 years after opening (i.e. when the planting mitigation measures can be assumed to be substantially effective). This is usually a reflection of the near fully mitigated scenario under normal conditions.

7.9.23 Those effects assessed as significant are summarised in **Table 7.27** (winter year 1) and **Table 7.29** (summer year 15) below. Significant year 1 operational phase effects on visual amenity would again be limited to receptors within approximately 1km of the Application Boundary, with many of the affected receptors being much closer than this. It is considered that beyond 1km only receptors visiting the tower of Winchester Cathedral as represented by VL 17 would undergo significant effects.

7.9.24 Effects which are considered not significant are summarised in **Table 7.28** (winter year 1) and **Table 7.30** (summer year 15) below. By year 15, receptors at VL 1 only would continue to undergo significant effects, due to a combination of the proximity to the Scheme resulting in continued perceptibility of the Scheme and its elements and the very high sensitivity of the receptor.

7.9.25 Accurate Visual Representations have been produced for seven of the representative VLs. These are presented on **Figure 7.14** (**Visualisations**) of the **ES** (**Document Reference 6.2**) and detail on the technical methodology for these is included in **Appendix 7.1** (**Methodology**) of the **ES** (**Document Reference 6.3**).

Table 7.27: Operation phase significant visual effects – winter year 1

View location	Sensitivity	Magnitude and nature of effect		Effect and significance
VL 1	Very high	*Size / scale:* Moderate *Geographical Extent:* Moderate *Duration / Reversibility:* Moderate to long term partially reversible and permanent effects associated with development of replacement vegetation planting, landform re-profiling, and new road alignments and junction.	Moderate adverse	**Large adverse** **Significant**
VL 3	Very high	*Size / scale:* Small *Geographical Extent:* Small *Duration / Reversibility:* Moderate to long term partially reversible and permanent effects associated with the re-alignment of the business park access roads and the completed new footway and cycleway alongside the main road.	Minor adverse	**Moderate adverse** **Significant**
VL 8	Very high	*Size / scale:* Small *Geographical Extent:* Moderate *Duration / Reversibility:* Moderate to long term partially reversible and partially permanent effects associated with vegetation and road changes. Long term permanent effects arising from landform changes, from the installation of new gantries and motorway signage, changes to the local PRoW network, and small-scale effects arising from illumination of the PRoW underpasses and gantry-mounted signage.	Minor adverse	**Moderate adverse** **Significant**

View location	Sensitivity	Magnitude and nature of effect		Effect and significance
VL 13	High	*Size / scale:* Small *Geographical Extent:* Small *Duration / Reversibility:* Moderate to long term partially reversible and partially permanent effects associated with vegetation and road changes. Long term permanent effects arising from landform changes, and to the local PRoW network due to new and realigned routes and road crossings, and small-scale effects arising from illumination of the PRoW underpasses and gantry-mounted signage.	Minor adverse	**Moderate adverse** **Significant**
VL 14	High	*Size / scale:* Large *Geographical Extent:* Moderate *Duration / Reversibility:* Moderate to long term partially reversible and partially permanent effects associated with vegetation changes and new/ realigned roads. Long term permanent effects arising from landform changes, from the installation of new gantries and motorway signage, and changes to the local PRoW network.	Moderate adverse	**Moderate adverse** **Significant**

View location	Sensitivity	Magnitude and nature of effect		Effect and significance
VL 16	Moderate	*Size / scale:* Moderate *Geographical Extent:* Moderate *Duration / Reversibility:* Moderate to long term partially reversible and permanent effects associated with vegetation and road changes. Long term permanent effects arising from landform changes, from the installation of new gantries and motorway signage, from local PRoW network due to new and realigned routes and road crossings, and small-scale effects arising from illumination of the PRoW underpasses and gantry-mounted signage.	Moderate adverse	**Moderate adverse** **Significant**
VL 17	Very high	*Size / scale:* Small *Geographical Extent:* Small *Duration / Reversibility:* Moderate to long term partially reversible and partially permanent effects associated with vegetation changes and new/ realigned roads. Long term permanent effects arising from landform changes and from the installation of new gantries and motorway signage	Minor adverse	**Moderate adverse** **Significant**

7.9.26 The full assessment of likely operational phase effects for receptors experiencing effects at year 1 winter which are not significant is detailed in **Appendix 7.4** (**Schedule of Visual Effects**) of the **ES** (**Document Reference 6.3**). The overall effects are summarised in **Table 7.28** below**.**

Table 7.28: Operation phase non-significant visual effects – winter year 1

View location	Sensitivity	Magnitude and nature of effect	Effect and significance
VL 2	High	Direct Negligible adverse	Slight adverse Not significant
VL 4	High	Minor adverse	Slight adverse Not significant
VL 5	Moderate	Negligible adverse	Slight adverse Not significant
VL 6 (a)	Moderate	Direct Minor adverse	Slight adverse Not significant
VL 6 (b)	Moderate	No change	Neutral Not significant
VL 7	High	Direct Minor adverse	Slight adverse Not significant
VL 9	Very high	No change	Neutral Not significant
VL 10	Moderate	Direct Negligible adverse	Slight adverse Not significant
VL 11	Very high	Direct Negligible adverse	Slight adverse Not significant
VL 12	Low	Direct Moderate adverse	Slight adverse Not significant
VL 15	Moderate	Direct Negligible adverse	Slight adverse Not significant
VL 18	Moderate	Direct Negligible adverse	Slight adverse Not significant
VL 19	High	Direct Negligible adverse	Slight adverse Not significant

View location	Sensitivity	Magnitude and nature of effect	Effect and significance
VL 19b	Very High	Direct Negligible adverse	Slight adverse Not significant
VL 20	Moderate	Direct Negligible adverse	Neutral Not significant
VL 21	Moderate	No change	Neutral Not significant
VL 22	Moderate	No change	Neutral Not significant
VL 23	Very high	Direct Negligible adverse	Slight adverse Not significant
VL 24	Very high	No change	Neutral Not significant

7.9.27 The full assessment of likely operational phase effects for receptors experiencing effects at year 15 summer which are considered significant is detailed in **Appendix 7.4** (**Schedule of Visual Effects**) of the **ES** (**Document Reference 6.3**). The overall effects are summarised in **Table 7.29** below**.**

Table 7.29: Operation phase significant visual effects – summer year 15

View location	Sensitivity	Magnitude and nature of effect		Effect and significance
VL 1	Very high	*Size / scale:* Small *Geographical Extent:* Moderate *Duration / Reversibility:* Moderate to long term partially reversible and permanent effects associated with vegetation loss and replacement, landform re-profiling, new road alignments and junctions, and changes to the PRoW network	Minor adverse	**Moderate adverse** **Significant**

7.9.28 The full assessment of likely operational phase effects for receptors experiencing effects at year 15 summer which are considered not significant is detailed in **Appendix 7.4** (**Schedule of Visual Effects**) of the **ES** (**Document Reference 6.3**). The overall effects are summarised in **Table 7.30** below**.**

Table 7.30: Operation phase non-significant visual effects – summer year 15

View location	Sensitivity	Magnitude and nature of effect	Effect and significance
VL 2	High	Direct Negligible adverse	Slight adverse Not significant
VL 3	Very high	Direct Negligible adverse	Slight adverse Not significant
VL 4	High	Negligible adverse	Slight adverse Not significant
VL 5	Moderate	Negligible adverse	Slight adverse Not significant
VL 6 (a)	Moderate	Direct Minor adverse	Slight adverse Not significant
VL 6 (b)	Moderate	No change	Neutral Not significant
VL 7	High	Direct	Slight adverse

View location	Sensitivity	Magnitude and nature of effect	Effect and significance
		Negligible adverse	Not significant
VL 8	Very high	Direct Negligible adverse	Slight adverse Not significant
VL 9	Very high	No change	Neutral Not significant
VL 10	Moderate	Direct Negligible adverse	Slight adverse Not significant
VL 11	Very high	Direct Negligible adverse	Slight adverse Not significant
VL 12	Low	Direct Negligible	Neutral Not significant
VL 13	High	Direct Negligible adverse	Slight adverse Not significant
VL 14	High	Direct Minor adverse	Slight adverse Not significant
VL 15	Moderate	Direct Negligible adverse	Neutral Not significant
VL 16	Moderate	Direct Minor adverse	Slight adverse Not significant
VL 17	Very high	Direct Negligible adverse	Slight adverse Not significant
VL 18	Moderate	Direct No change	Neutral Not significant
VL 19	High	Direct Negligible adverse	Neutral Not significant
VL 19b	Very High	Direct Negligible adverse	Slight adverse Not significant
VL 20	Moderate	Direct Negligible adverse	Neutral Not significant
VL 21	Moderate	No change	Neutral Not significant

View location	Sensitivity	Magnitude and nature of effect	Effect and significance
VL 22	Moderate	No change	Neutral Not significant
VL 23	Very high	Direct Negligible adverse	Slight adverse Not significant
VL 24	Very high	No change	Neutral Not significant

7.10 Monitoring

7.10.1 Structural planting implemented as part of the essential mitigation measures proposed for the Scheme require monitoring under a management plan to ensure successful establishment and development and ensure it is functioning as required to meet its environmental function and mitigation requirement.

7.10.2 An **Outline Landscape and Ecological Management Plan (OLEMP)** is included in **Appendix 7.6** of the **ES** (**Document Reference 6.3**). This describes the proposed outline management and monitoring of the landscape and ecological mitigation elements with detail of the objectives, and success criteria for the establishment to achieve its environmental function. This would be updated into a Landscape and Ecological Management Plan (LEMP) during detail design and would include further detail on the long-term management.

Construction

7.10.3 Likely significant adverse residual effects on landscape and visual are predicted as a result of the construction of the Scheme. Therefore, monitoring would be undertaken by an Environmental Manager to ensure the Scheme construction is delivered in accordance with the measures set out in the **first iteration Environmental Management Plan** (**fiEMP (Document Reference 7.3)**).

7.10.4 In addition, establishment of appropriate vegetation protection measures and areas for removal would be inspected by an Environmental Manager to ensure compliance with the Arboricultural Method Statement and Tree Protection Plans (to be developed during detailed design).

7.10.5 The Environmental Manager would also monitor the implementation of the landscape mitigation planting as set out on **Figure 2.3 (Environmental Masterplan)** of the **ES (Document Reference 6.2)**. The implementation of this could occur over the 3 year construction period but is likely to be focused to the end of the construction programme with some advanced (early) planting taking place at the commencement of the construction phase. This monitoring would

ensure that best practice is being followed and the planting is implemented in accordance with the detailed design.

Operation

7.10.6 Likely significant adverse residual effects on landscape and visual receptors are predicted as a result of the operation of the Scheme (with embedded and essential mitigation). Therefore monitoring would be undertaken in line with the requirements of the EIA Regulations.

7.10.7 The **fiEMP** (**Document Reference 7.3**) sets out the initial requirements that the appointed Contractors would be responsible for ensuring vegetation establishment and replacement of failed stock within the establishment aftercare period.

7.10.8 During detailed design the LEMP would be produced to provide information relating to existing and future landscape and environmental commitments that would need to be delivered to achieve the intended environmental function and objective. The LEMP would include detailed requirements concerning the medium to long-term maintenance and management of all soft landscaping incorporated into the Scheme. This planting would be the responsibility of National Highways, and management requirements would be developed in accordance with MCDHW Volume 1, Series 3000 Landscape and Ecology (Highways Agency, 2001).

7.10.9 In accordance with standard practice, following the establishment aftercare period, landscape planting within the permanent land acquisition would be the responsibility of National Highways or their appointed agent.

7.10.10 At the end of the establishment aftercare period, prior to handover of the Scheme to National Highways or its appointed agent, a further iteration to the LEMP would be prepared by the contractors to identify the longer-term maintenance and management responsibilities of landscape and environmental commitments and mitigation.

7.10.11 During the establishment aftercare period and beyond, environmental features (including soft landscape features) would be routinely inspected by the contractor or their appointed agent, in accordance with the requirements as stipulated within LEMP. Inspection would ensure management and maintenance practices of landscape elements as identified, are undertaken and that the landscape features establish and achieve their intended environmental function and objective. Monitoring for establishment of newly created landscape elements would follow the establishment maintenance specifications produced during detailed design and would take the form of quarterly inspection in the first two years, followed by annual inspections in the following three years after seeding/planting.

7.11 Summary

7.11.1 This chapter presents an assessment of the effects of the Scheme on the landscape resource and on visual receptors during the construction and operational phases. Landscape considerations include landscape features, and landscape character. Visual considerations include visual amenity and views experienced by people from publicly accessible VLs and nearby buildings, including residential properties. The assessment was carried out in accordance with professional standards and guidance and methodologies outlined within the DMRB LA 104 Environmental Assessment and Monitoring (Highways England, 2020) and the DMRB LA 107 Landscape and Visual Effects (Highways England, 2020) and agreed with key landscape stakeholders.

7.11.2 The landscape within the study area falls within either the nationally designated area of the South Downs National Park or within its setting and is located immediately east of the historic townscape of Winchester. A small section of the River Itchen passes through the Application Boundary which is an ecologically important designated feature.

7.11.3 Visual amenity receptors assessed within the study area included occupiers of residential properties; users of PRoWs; visitors to recreational areas such as the South Downs National Park, areas of open access land, heritage assets; people travelling on the existing highway network; visitors to hotels; and office workers.

7.11.4 The landscape and visual assessment was carried out throughout the Scheme's iterative design process, informing the Scheme design and proposed mitigation measures.

7.11.5 Design features including the modified highway network, new gantries / VMS and motorway signage, and modified Junction 9, would result in a series of noticeable features in the short to medium term. Considering the loss of woodland, existing vegetation, and modification to landform and topography, this results in a series of residual significant effects in the medium term.

7.11.6 The design has avoided adverse effects wherever practicable and reduces residual effects through the embedded and essential mitigation measures as identified on the **Figure 2.3 (Environmental Masterplan)** of the **ES (Document Reference 6.2)**.

7.11.7 Embedded mitigation measures include modification to landform, and re-profiling of existing landform to create sympathetic features and reinforce existing characteristics and aid visual screening, and enhancements to the network of PRoWs and new Walking Cycling and Horse-riding routes. Essential mitigation measures include extensive woodland, scrubland, and additional linear planting at the junctions and surrounding the new link roads to aid visual screening and landscape integration.

7.11.8 The landscape and visual assessment considers the reasonable worst-case situation as a result of the Scheme. It is noted that refinement to the Scheme design during the detailed design stage could mitigate the reported effects further.

7.11.9 Construction phase significant effects on the landscape resource would be limited to designated landscapes and landscape character areas and features which would undergo direct effects due to the proximity of the Scheme and a combination the size and scale and geographical extent of the effect. For all of these, the scale and significance of effect reduces with increasing distance from the Application Boundary, with only limited indirect effects beyond approximately 1km from the Application Boundary.

7.11.10 Likewise operational phase significant effects on landscape receptors at winter year 1 are limited to designated landscapes and landscape character areas and features, however following successful establishment of the proposed landscape mitigation, effects on landscape receptors which are not significant are reported for summer year 15.

7.11.11 Overall the assessment concludes that effects on the South Downs National Park and its special qualities would result in Moderate adverse and effects which are significant during the construction phase and operation phase at Year 1. This acknowledges that construction activities would result in a series of incongruous activities within a small part of the South Downs National Park on its western boundary introduction of further infrastructure and removal of vegetation, resulting in the potential for a series of short to medium term localised effects, within the Application Boundary and its immediate environs.

7.11.12 Effects on the South Downs National Park and its special qualities in the operational phase the assessment concludes Slight adverse and effects which are not significant at year 15 summer once the landscape mitigation has established. This acknowledges that there would be no discernible change to the Environmental Light Zones or the dark skies of the South Downs National Park within the Application Boundary and its environs.

7.11.13 Significant construction phase effects on visual amenity would predominantly be limited to receptors within approximately 1km of the Application Boundary, with many of the affected receptors being much closer. Only VL17 beyond 1km would undergo significant effects – with receptors visiting the tower of Winchester Cathedral where long-distance panoramic views can be obtained.

7.11.14 Operational phase significant effects at winter year 1 on visual amenity would also be limited to receptors within approximately 1km of the Application Boundary, with the number of receptors experiencing significant effects reducing from that reported at construction. Receptors visiting the tower of Winchester Cathedral as represented by VL17 would continue to experience significant effects. By year 15, only receptors at VL 1 would continue to undergo significant effects, due to a combination of the proximity to the Scheme resulting

in continued perceptibility of the Scheme and its elements and the very high sensitivity of the receptor. Accounting for the proposed landscape mitigation effects which are not significant upon visual amenity are reported for all other VLs at summer year 15.

7.11.15 The overall outcome combined to a single conclusion of the likely significance of effect on landscape and visual amenity, as required by DMRB LA 107 Landscape and Visual Effects (Highways England, 2020) would be that the Scheme would have a moderate adverse and significant effect in the short to medium term. This is during construction and immediately following construction whilst the proposed mitigation is establishing. The overall moderate adverse and significant effect is predicted principally due to the nature of effects in relation to the designated and sensitive landscape of the South Downs National Park. The effects reduce to a slight adverse and not significant effect in the long term as landscape mitigation planting successfully establishes to aid landscape integration and provide visual screening.