

M3 Junction 9 Improvement

Scheme Number: TR010055

6.3 Environmental Statement Appendix 4.2 - Scoping Comments and Responses

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6.3 ENVIROMENTAL STATEMENT - APPENDIX 4.2: SCOPING COMMENTS AND RESPONSES

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Environmental Statement Appendix 4.2: Scoping Comments and Responses

1.1 Scoping Comments and Responses

Table 1: Scoping Comments and Responses

ID	Ref	Applicant's proposed matters toscope out / Other points	Inspectorate's comments	National Highways Response			
Heat	at and Radiation						
4.1.1	5.1.14	Heat and Radiation impacts	Scoping Report paragraph 5.1.15 states that this matter can be scoped out as the Proposed Development is a highways scheme and therefore it is not anticipated that there would be any significant sources of heat or radiation during construction or operation and hastherefore been scoped out of the ES. The Inspectorate is content to scope this aspect out on this basis.	Noted – no response required.			
4.1.2	N/A	N/A	N/A	No response required.			
Air Q	uality						
4.2.1	N/A	N/A	No matters have been proposed to be scoped out of the assessment.	No response required.			
4.2.2	6.2.4 to 6.2.7 and6.2.9	Data supporting baseline characterisation	The Scoping Report states that Defra background mapping for Winchester City have been downloaded and reviewed and all concentrations of air pollution are below air quality thresholds, yet this data is not provided. Additionally, in paragraph 6.2.9 it states that for the most sensitive habitats at designated sites, the predicted background NO ₂ rate is above the critical load for the River Itchen SSSI and SAC and below for St Catherine's Hill SSSI but these data are not presented. The ES should present the data supporting baseline characterisation.	The Environmental Statement (ES) presents the data supporting baseline characterisation. The extents of the 'Air Quality Study Area' were defined as part of the air quality assessment. The Defra background predictions are presented in Appendix 5.2 (Human Receptors, Backgrounds and Operational Phase Results) of the ES (Document Reference 6.3). Predicted background NOx (oxides of nitrogen) and nitrogen deposition rates at designated sites were presented in Table 6.2 of the Scoping Report. This data has been updated for designated habitats as presented in Appendix 5.3 (Designated Habitats, Backgrounds and Operational Phase Results) of the ES (Document Reference 6.3).			
4.2.3	6.1	Study area	The study area is proposed to be determined in line with The Design Manual for Roads and Bridges LA 105 Air Quality guidance; this includes defining the Affected Road Network (ARN) and identifying sensitive receptors within 200m of the ARN. The Applicant should make effort to agree the study area with the relevant consultation bodies and ensure that all roads potentially impacted by the Proposed Development, for example, as a result of road diversions or other traffic management measures, are used to determine the study area.	Under the opening year operational scenario, the roads that exceed the Scoping Criteria defined within Design Manual for Roads and Bridges (DMRB) LA 105 (Highways England, 2019) (presented in Chapter 5 (Air Quality) of the ES (Document Reference 6.1)) are presented in Figure 5.2 (Affected Road Network) of the ES (Document Reference 6.2) . As per the DMRB methodology, a 200m buffer from these roads has been used in relation to operational traffic, alongside a 200m buffer from the Application Boundary to identify the overall 'Air Quality Study Area'. Representative sensitive receptors have been identified through consultation with relevant consultees.			



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4.2.4	6.2.8 and 6.2.9	PM2.5 and PM10 baseline conditions for	Scoping Report paragraphs 6.2.8 to 6.2.9 present a baseline of NO _X and NO ₂ concentrations for designated sites but not for PM _{2.5} or PM ₁₀ .No reasoning is provided for this omission.	Only NOx and nitrogen deposition are reported at designated habitats as these are the only relevant pollutants from road traffic that require assessment in accordance with DMRB LA 105 (Highways England, 2019).
		designated sites	The ES should characterise all baseline pollutants and assess their effects on receptors where they have potential to cause significant effects or explain why this is not necessary/achievable.	Particulate Matter (PM ₁₀ or PM _{2.5}) concentrations at designated ecological sites have not been assessed as vegetation has no known sensitivity to these pollutants. This is not included within the ES.
4.2.5	Table 6.3	NO2 concentration baseline data	The data presented in Table 6.3 displays NO ₂ concentrations at monitored locations during 2013, 2014, 2016 however, the NO ₂ is presented as one figure rather than for each year. The ES should be clear in its presentation of baseline	The data presented in the Scoping Report represented all available monitoring data as annual averages for different years collected by the Applicant and nearby Local Authorities to characterise the baseline air quality environment.
			data as to what is being represented, for example, if it is an average of the three years or the worst-case figure etc.	It is unclear why the Planning Inspectorate consider a single figure spans 3-years as this is not the case.
4.2.6	6.3.1, Tables 6.6 and 6.7 and 6.10	Construction dust risk potential	Scoping Report Table 6.6 and 6.7 present criteria used to determine the construction dust risk of the Proposed Development which is dependent on the scale of the proposed scheme and the distance of receptors to the construction activities. This risk level will then be used to inform the appropriate level of mitigation required.	In accordance with the methodology described in DMRB LA 105, (Highways England, 2019), the 'dust risk magnitude' and proximity to sensitive receptors has been used to determine the required mitigation, which is also reported in the first iteration Environmental Management Plan (fiEMP) (Document Reference 7.3).
			The ES should explain how these criteria will be applied to the Proposed Development and how the worst-case scenario will be assessed in terms of construction dust impacts. This may include consideration of the duration, timing, location and plant machinery used for construction.	To ensure a worst-case scenario is assessed the assessment is based on the distance from the site boundary rather than potential dust generating activities.
4.2.7	6.3.3	Operational impacts of PM _{2.5}	Scoping Report paragraph 6.3.3 states that during operation, the Proposed Development will cause impacts from PM_{10} , NO_2 and NO_3 emissions but there is no explanation as to why $PM_{2.5}$ will not cause impacts. The ES should include an assessment of all potential emissions as a result of the Proposed Development or provide justification as to why no assessment is required.	As stated in DMRB LA 105 (Highways England, 2019) paragraph 2.21.2 to 2.21.4, modelling of PM ₁₀ or PM _{2.5} in relation to human receptors is considered to offer little insight as to potential compliance with air quality thresholds where current baseline levels comply with legal requirements (as in the case in the Study Area) and the modelling of PM ₁₀ can be used to demonstrate that the Scheme does not impact on the PM _{2.5} air quality thresholds.
				However, for completeness Appendix 5.2 (Human Receptors Backgrounds and Operational Phase Results) of the ES (Document Reference 6.3) includes predicted PM _{2.5} impacts (calculated from PM ₁₀ traffic related emission combined with PM _{2.5} predicted backgrounds) to demonstrate this.
4.2.8	Table 6.9	Guideline bands for judgement of significant	Where criteria are used to determine significant effects, the Applicant should ensure that the definition is clear. In Table 6.9, whilst the figures are only guideline bands, the number of receptors cross from one definition to another,	This is as stated in DMRB LA 105 (Highways England, 2019), Table 2.92N. To clarify, there is no overlap as the categorisation of 'medium' or 'large' depends on the predicted change in pollutant concentration.
		effects	for example, if there were 10 receptors with worsening air quality objectives, it remains unclear whether they would be allocated a large or medium magnitude of change as 10 is in both categories.	The sum of receptors in each category is calculated and where this number exceeds the upper guideline (in any category, for example more than 30 'medium' or more than 10 'large' worsening above the Ait Quality Objective



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			Whilst this is in line with DMRB guidance, the ES should justify the category allocated where there is overlap.	(AQO)), then this is considered to constitute a significant air quality effect. Conversely where the number of receptors in a category is below the lower guideline (for example less than 10 'medium' or less than 1 'large' worsening above the AQO), this this is consider a non-significant air quality effect.
				Where the sum of receptors lies between the guidelines, then consideration is given to the absolute concentrations, whether there are also improvements at other receptors, and the magnitude of change, to determine if there is a significant air quality effect.
4.2.9	6.6.27	Mitigation	To ensure the most appropriate mitigation measures are proposed/employed to reduce any potential significant effects, the Applicant should consult with and agree upon such measures with therelevant consultation bodies.	Required mitigation has been defined through ongoing consultation with the relevant consultation bodies and outlined in Chapter 5 (Air Quality) of the ES (Document Reference 6.1) and the fiEMP (Document Reference 7.3) . The conclusions of the assessment of effects to air quality receptors are reported in Chapter 5 (Air Quality) of the ES (Document Reference 6.1) .
4.2.10	6.3.2 and 6.5.1	Impacts on local air quality	Scoping Report paragraph 6.3.2 states that traffic management measures during the construction period could lead to impacts on local air quality, yet this is contradicted in paragraph 6.5.1 where its states impacts on local air quality are not anticipated. Based on these contradictory statements in relation to anticipated effects from	It is these not considered that paragraphs of the Scoping Report are contradictory as paragraph 6.3.2 only acknowledges the potential for 'impacts' during construction resulting from traffic management measures (as highlighted as a concern by consultees), whereas paragraph 6.5.1 states that significant effects are not expected.
			changes in Air Quality. The Inspectorate considers that the ES should be consistent in presenting the effects.	Chapter 5 (Air Quality) of the ES (Document Reference 6.1) reports both predicted impacts and any resultant effects in a consistent manner as per the DMRB methodology.
Cultu	ıral Herita	ge		
4.3.1	N/A	N/A	No matters have been proposed to be scoped out of the assessment	No response required.
4.3.2	7.1.3, 7.3.9	Zone of Theoretical Visibility (ZTV)	Scoping Report paragraph 7.1.3 states that a Zone of Theoretical Visibility (ZTV) has not yet been established. The ES should define the ZTV extent, the location of representative viewpoints, and specific heritage assets where detailed setting studies are required and make effort to agree the approach with the relevant consultation bodies.	The Zones of Theoretical Visibility (ZTV) are referenced in Chapter 6 (Cultural Heritage) of the ES (Document Reference 6.1) and in Figures 7.5 to 7.11 of the ES (Document Reference 6.2). The details of the methodology used to create the ZTVs can be found within Chapter 7 (Landscape and Visual) of the ES (Document Reference 6.1). Heritage assets requiring a detailed settings assessments have been identified through a combination of desk-based research, review of the ZTVs, walkover survey and through consultation with Historic England, South Downs National Park, Winchester City Council (hereafter referred to as the Key Heritage Stakeholders). Viewpoints to, from or across relevant heritage assets are provided in Appendix 6.1 (Detailed Cultural Heritage Baseline) of the ES (Document Reference 6.3) with descriptions of the photo location. Chapter 7 (Landscape and Visual) of the ES (Document Reference 6.1) also includes viewpoints and visualisations some of which are to, from or across heritage assets. The locations are shown on Figure 7.4 (View Locations) of the ES (Document Reference 6.2) and visualisations are shown on Figure 7.14 (Visualisations) of the ES



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				(Document Reference 6.2). These are discussed within this assessment where relevant.
4.3.3	7.1.3	Standards for desk- basedassessments	Study areas are proposed to be based on standards for desk-based assessments produced by the Chartered Institute for Archaeologists(ClfA).	This assessment has been carried out with reference to these standards and guidance documents. These are listed in Chapter 6 (Cultural Heritage) of the ES (Document Reference 6.1).
			The Inspectorate notes this and considers that other relevant guidelines should be referenced in the ES, where appropriate, such as The Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning Note 3 (2nd edition) by Historic England (2017), Statements of Heritage Significance: Analysing Significance in Heritage Assets by Historic England (2019), and Standards for Archaeological Desk-based Assessments (DBA) by Winchester City Council (n.d.).	Lo (Document Reference 6.1).
4.3.4	7.2.3– 7.2.4	Historic aerial photographs	The Scoping Report notes that the Winchester Historic Environment Record (WHER) has been consulted for relevant data, but that due to the COVID-19 pandemic the Historic England Archives in Swindon is closed to the public and as of September 2020 is not available to consult historic aerial photographs. Several aerial photographs were viewed at the Hampshire Record Offices. The Planning Inspectorate understands these limitations, but also reminds the Applicant that the Winchester HER also holds a collection of historic aerial photographs that might be accessible.	The Historic England Archives in Swindon reopened during the assessment process. It was agreed with the Winchester City Council Archaeologist that only aerial photographs post-dating the National Mapping Programme (NMP) needed to be reviewed (email correspondence May 2021). A review of these is presented in Appendix 6.1 (Detailed Cultural Heritage Baseline) of the ES (Document Reference 6.3) . At the same time it was also confirmed that the Winchester City Council Historic Environment Record (HER) contained only duplicates of aerial photographs held by Historic England and therefore a review of these was not required.
4.3.5	7.2.3– 7.2.12	Referencing data used in the assessment	Paragraph 7.2.6 states that the location of cultural heritage assets derives from Historic England's National Heritage List for England which is listed in the consulted sources paragraph of consulted sources (7.2.3). However, other descriptions of the baseline environment do not reference where the information has been sourced, for example, paragraphs 7.2.7 and 7.2.19 for archaeological and historic landscape baselines. The ES should appropriately reference data used within the assessment and their sources.	A full list of sources consulted as part of this assessment is provided in Appendix 6.1 (Detailed Cultural Heritage Baseline) of the ES (Document Reference 6.3). References are provided at the end of detailed cultural heritage baseline and in Chapter 18 (References) of the ES (Document Reference 6.1).
4.3.6	7.2.16	Non-designated built heritage assets and locally listed buildings	The Scoping Report notes that in addition to designated built heritage assets there are likely to be non-designated built heritage assets or locally listed buildings within the study areas. Any such assets considered to be potentially significantly affected by the Proposed Scheme will be included within assessment.	Non-designated built heritage assets have been identified for inclusion in this assessment through desk-based research and a walkover survey and based upon professional judgement. These are included within the assessments in Chapter 6 (Cultural Heritage) of the ES (Document Reference 6.1).
			The ES should describe how these assets will be identified and assessed in the ES.	



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4.3.7	7.3.2	Sensitivity of further archaeological remains	Scoping Report paragraph 7.3.2 states that previous archaeological investigations demonstrated that whilst the majority of the archaeological remains within the red line boundary have already been removed, there is potential for further archaeological deposits to be present beyond previously investigated areas and that these could be of medium or of high value/sensitivity. This contradicts an earlier statement in paragraph 7.2.12 that although previous construction work had not substantially diminished the potential for archaeologically significant remains to be present within the red line boundary the value/sensitivity of these particular remains is considered to be low.	The use of professional judgement, where necessary, has been made clear within Chapter 6 (Cultural Heritage) of the ES (Document Reference 6.1).
			The ES should be consistent in its assessment and explain how and where assumptions, professional judgement and sources underpin the assessment.	
4.3.8	7.3.7– 7.3.8, 7.4.3 and7.5.1	Impacts from vibration and compaction	Whilst Scoping Report paragraph 7.3.8 acknowledges that the setting and value/sensitivity of cultural heritage receptors may be indirectly affected by the Proposed Development in terms of vibration, compaction, changes in the water table and soil saturation has not been included and all impacts have potential to directly affect receptors i.e. vibration physically damaging a receptor preserved in situ and the short, medium and long term implications of soil saturation on those preserved in situ. The ES should include an assessment of both direct and indirect impacts from vibration, compaction, changes in the water table (due to changes in runoff from the Proposed Development) and soil saturation on cultural heritage receptors as a result of the Proposed Development where significant effects	The direct and indirect impacts from vibration, compaction and changes in water table have been considered within Chapter 6 (Cultural Heritage) of the ES (Document Reference 6.1)
4.3.9	7.4.5	Ongoing design changes	Scoping Report paragraph 7.4.5 states that as details become available and if significant adverse impacts are identified, consultation on potential impacts and mitigation will be carried out with the Winchester City Council Conservation Officer, the SDNPA, Historic England and the Hampshire Garden Trust. This is a somewhat <i>ad hoc</i> approach, and consultation should be ongoing rather than just when potentially significant effects are identified. The Applicant should make effort to undertake ongoing consultation with the relevant consultation bodies and use information that derives from this to inform the assessment where appropriate.	It was requested by the Key Heritage Stakeholders who attended the cultural heritage workshop (held 25 November 2020) that an open dialogue be maintained during further design and approaches to mitigation which should be discussed as and when details of new Scheme elements become available. Consultation with stakeholders has been carried out throughout the Scheme development. Consultation carried out at earlier stages of the Scheme has informed the assessment undertaken in Chapter 6 (Cultural Heritage) of the ES (Document Reference 6.1) and will continue to be. The applicant would continue to consult with the relevant consultation bodies through further stages of the Scheme. This is set out in Chapter 6 (Cultural Heritage) of the ES (Document Reference 6.1) and Appendix 6.7 (Archaeology and Heritage Outline Mitigation Strategy) of the ES (Document Reference 6.3)



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4.3.10	7.5.1	Residual effects	Scoping Report paragraph 7.5.1 states that it is unlikely that there will be residual effects upon buried archaeological remains within the red line boundary following construction of the Proposed Development. Any remains within the impact zone will be removed during the construction phase following suitable archaeological mitigation which will preservation by record. The Inspectorate cautions against any premature conclusions given that it may be decided to preserve some archaeological remains <i>in situ</i> which could then be subject to potential effects from vibration, compaction, or dewatering. The ES should determine whether receptors may be preserved <i>in situ</i> and assess any effects as a result of this where they are likely to be significant.	Geophysical surveys and trial trenching carried out to the east and the west of the M3 as part of a previous design of the Scheme and as part of this assessment have not revealed any archaeological remains which are of such high significance that they warrant preservation in situ. Taking these results into consideration and given the assessment of previous impacts it is unlikely that there will be archaeological remains warranting preservation in situ beyond these evaluated areas. Dewatering is not considered to be necessary for Scheme construction, with the exception of isolated pockets of the River Itchen to facilitate the installation of drainage headwalls (refer to Chapter 2 (The Scheme and its Surroundings) of the ES (Document Reference 6.1) for further information).
4.3.11	7.5.5	Areas for potential excess spoil management	The Inspectorate would like to see more detailed consideration of areas proposed for spoil management and storage within the ES, and these areas must be evaluated in order to establish the presence, nature, and date of any archaeological remains and potential susceptibility to damage from compression. Measures including the use of geotextile membrane and/or ground protection mats below stockpiled soil may also need to be considered within the ES.	A geophysical survey carried out as part of this assessment included the proposed spoil management and storage areas (Appendix 6.5 (Geophysical Survey Report) of the ES (Document Reference 6.3)). The results largely confirmed understanding of the nature, extent and density of archaeological remains and it was confirmed by the Winchester City Council Archaeologist that no further intrusive evaluation work was required within this area to the inform the ES (email received 28 June 2021). However, since the time of the survey, the areas of search for excess spoil management have been removed from the Scheme and no longer form part of the application for Development Consent (see Chapter 3 (Assessment of Alternatives) of the ES (Document Reference 6.1) for further information).
Lands	scape and \	/isual		
4.4.1	N/A	N/A	No matters have been proposed to be scoped out of the assessment	No response required.
4.4.2	8.1.1	Study area	As the Zone of Theoretical Visibility (ZTV) is not yet established there is no justification that the study area of 3km north and south and 2km east and west is appropriate. The ES should define and justify the study area based on the Zone of Theoretical Visibility and extent to which significant effects are likely to occur. This may also introduce new viewpoint locations which the ES should identify and assess any likely significant effects where they are likely to occur.	A range of ZTV analysis has been produced to support the Landscape and Visual Impact Assessment (LVIA). This includes analysis of the baseline highway network and future visibility of the Scheme with mitigation. This has collectively identified a limited visual envelope focused along and around the existing M3, A34 and A33 transport corridors (see Figures 7.5 to 7.11 of the ES (Document Reference 6.2)). This has been used to define the study area and identify and agree view locations (VL) with Winchester City Council, Hampshire County Council, and the South Downs National Park Authority.



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4.4.3	8.2.4, Table 8.1	Abbots Worthy House and Garden	Scoping Report Table 8.1 states that "There are no parks and gardens listed on the Register of Parks and Gardens of Special Historic Interest (RHPG) located within 500m of the Proposed Scheme."	Effects on the heritage assets have been considered as part of Chapter 6 (Cultural Heritage) of the ES (Document Reference 6.1)) in line with the DMRB LA 106 (Highways England, 2020).
			Abbots Worthy House and Garden is considered a heritage asset by both the Hampshire Inventory of Historic Parks, Gardens and PublicGreen Space and The South Downs National Park Strategic HousingLand Availability Assessment (2014). Considering the location of Abbots Worthy Park is only <i>c</i> . 15m to the south-east of one part of the red line boundary, the ES should include Abbots Worthy House and Garden as a receptor and assess any potential significant effects as a result of the Proposed Development where they are likely tooccur.	Effects on the landscape setting of Worthy Park are considered in Appendix 7.3: Schedule of Landscape Effects of the ES (Document Reference 6.3), along with landscape settings of heritage designations.
4.4.4	8.2.4, Table 8.1, 8.6.16	Landscape statutory designations, perceptual aspects, and Dark Sky standards	The Scoping Report (Page 90, Table 8.1 notes that in 2016 the SDNP became the world's 13th International Dark Sky Reserve (IDSR). Paragraph 8.6.16 later states that there will be an assessment of the effects on the night-time environment and the SDNP's dark skies in relation to the SDNP's Dark Skies Reserve status. The ES should assess the potential significant effects from night-time/winter lighting of the Proposed Development during its construction and operation where they are likely to occur.	Chapter 7 (Landscape and Visual) of the ES (Document Reference 6.1) has considered potential significant effects from night-time lighting in line with DMRB LA 107 (Highways England, 2020). Agreement has been reached with relevant statutory consultees regarding VLs for undertaking the lighting assessment and is documented in Chapter 7 (Landscape and Visual) of the ES (Document Reference 6.1).
4.4.5	8.2.4, Table 8.1	Landscape character	Scoping Report Table 8.1 states that Hampshire County Council has produced an Integrated Landscape Character Assessment (Hampshire County Council, 2012), within which the Proposed Development falls, in part, within Character Area 3c: Itchen Valley. The only key characteristics of Character Area 3c with the potential to be affected by the Proposed Scheme is that it provides a setting to Winchester. The Inspectorate considers that it is premature to conclude that the key characteristic of the setting to Winchester is the only characteristic potentially affected by the Proposed Scheme, and this also misrepresents the original document. The Hampshire County Integrated Character Assessment for the Itchen Valley also notes thatthe Itchen Valley has "An extremely rich built heritage and setting to Winchester and developed valley sides in lower reaches" (Hampshire County Council 2012: 4). It thus has a rich built heritage in its own right and is not simply a setting for Winchester. Therefore, the ES should include an assessment of effects on landscape character for the Itchen Valley as a receptor in its own right where significant effects are likely to occur.	The Itchen Valley as a landscape feature is considered within landscape character areas F5: Itchen Floodplain (South Downs Landscape Character Assessment, 2020) and 3c: Itchen Valley (Hampshire County Council Integrated Landscape Character Assessment, 2012) and has been considered within Chapter 7 (Landscape and Visual) of the ES (Document Reference 6.1).



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4.4.6	8.2.8– 8.2.9, 8.2.10– 8.2.11	Visual receptors	The Scoping Report notes that the list of landscape receptors will be agreed with the relevant consultation bodies. The list of visual receptors in Para 8.2.9 mentions those using public rights of way and areas for recreational purposes and people travelling in vehicles; but omits effects on people who live and/or work within or adjacent to the Proposed Development and open access land. Effects on people are later mentioned in paragraph 8.2.11, but it is unclear why they are related to a subsidiary positionand not considered together with other receptors. The ES should define and assess significant effects on all sensitive receptors where they are likely to occur and effort should be made to agree the approach with the relevant consultation bodies.	The South Downs National Park Authority, Hampshire County Council and Winchester City Council have been consulted in relation to the LVIA methodology, study area and landscape and visual receptors (people, i.e. public rights of way, people travelling in vehicles, people who live and/or work within or adjacent to the Proposed Development and recreational users accessing areas of open access land) for the assessment have been agreed as part of the 'Request for a Second Scoping Opinion' and informally during pre-scoping discussions. Sensitive landscape and visual receptors for which there is the likelihood of significant effects have been defined in Chapter 7 (Landscape and Visual) of the ES (Document Reference 6.1).
4.4.7	8.2.10, Table 8.2	Proposed view locations	Proposed view locations are set out in Scoping Report Table 8.2 but no photomontages, 3D models, wireframe images, and/or Accurate Visual Representations of the Proposed Development are provided. The ES should include some or all of these visual examples. Such visual impact assessment within the ES should assess not just views from identified locations or receptors, but also views to them where significant effects are likely to occur.	Accurate Visual Representations (AVRs) have been produced from a range of VLs following consultation with South Downs National Park Authority, Hampshire County Council and Winchester City Council. 3D modelling and design work has aided design development as part of the iterative design approach to lessen potential landscape and visual effects on surrounding receptors. In accordance with the methodology (para 3.37) DMRB LA 107 (Highways England, 2020), Chapter 7 (Landscape and Visual) of the ES (Document Reference 6.1) has been undertaken on the following basis. The "Visual assessment shall record the degree of change in the composition of the view from that which would exist without the project to that which would result as a consequence of the project."
4.4.8	8.3.3	Key impacts	Key impacts are listed in Scoping Report paragraph 8.3.3 but do not consider potential effects on topography, agricultural land, recreation and enjoyment and cumulative effects with other development. The ES should list all key impacts and assess them where significant effects are likely to occur.	Potential effects on topography, agricultural land, watercourses (as a landscape resource) and open access land and the PRoW network have been considered within Appendix 7.3 (Schedule of Landscape Effects) of the ES (Document Reference 6.3). Cumulative effects are considered in Chapter 15 (Cumulative Effects) of the ES (Document reference 6.1).
4.4.9	8.4.5	Tree survey and impacts to trees	The Planning Inspectorate welcomes a detailed tree survey to determine the arboricultural constraints relevant to the Proposed Development, and that a tree protection strategy will inform elementsof the final design. Mitigation proposed in the ES should account for changes in vegetation and foliage between winter and summer months. The ES should also assess significant effects of the Proposed Development on the setting of trees and woodland where they are likely to occur.	The assessment methodology outlined within Chapter 7 (Landscape and Visual) of the ES (Document Reference 6.1) is in accordance with DMRB LA 107 (Highways England, 2020). This requires an assessment of the winter (construction and operation opening year) and summer (operation design year). Potential effects on existing vegetation as a landscape feature have been considered within Appendix 7.3 (Schedule of Landscape Effects) of the ES (Document Reference 6.3). This has been informed by the Appendix 7.5 (Arboricultural Impact Assessment (AIA)) of the ES (Document Reference 6.3) which considers the setting of trees and woodland in relation to the



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				Scheme.
4.4.10	8.4.7– 8.4.13	Mitigation	Paras 8.4.7–8.4.13 outline some mitigation and enhancement measures for the operation of the Proposed Development; effort should be made to agree any mitigation measures with the relevant consultation bodies to ensure that the measures are appropriate. The ES should include a full description of the proposed measures and indicate how these measures will be implemented, secured and their influence on the assessment of significant effects.	Figure 2.3 (Environmental Masterplan) of the ES (Document Reference 6.2) and Figure 2.8 (Scheme Long Sections) of the ES (Document Reference 6.2) has been consulted on with the South Downs National Park Authority and Winchester City Council following their responses to the statutory consultation process undertaken in summer 2021. The full description of mitigation measures, as well as how they are to be secured, has been set out within the Chapter 7 (Landscape and Visual) of the ES (Document Reference 6.1) and the fiEMP (Document Reference 7.3). All proposed landscape mitigation measures are located within the Application Boundary and will be managed by National Highways or their appointed agent. Appendix 7.6 (Outline Landscape and Ecological Management Plan (OLEMP) of the ES (Document Reference 6.3)) provides details on their implementation and management. Chapter 7 (Landscape and Visual) of the ES (Document Reference 6.1) reports an assessment of residual effects which is following implementation of the mitigation measures set out.
4.4.11	8.6.3	Methodology	The Scoping Report lists the 2013 <i>Guidelines for Landscape and Visual Impact Assessment</i> (3rd Edition) by The Landscape Institute and Institute of Environmental Management and Assessment (IEMA) as guidance used to inform the assessment. The Inspectorate encourages the Applicant to take account of more recent guidance such as <i>Visual Representation of Development Proposals: Technical Guidance Note 06/19</i> (Landscape Institute 2019), and <i>Infrastructure:Technical Guidance Note 04/20</i> (Landscape Institute 2020), where relevant.	Noted and relevant standards and guidance reflected in Chapter 7 (Landscape and Visual) of the ES (Document Reference 6.1). AVRs (see Figure 7.14 (Visualisations) of the ES (Document Reference 6.2)) have been produced to a Type 4 standard in accordance with Visual Representation of Development Proposals: Technical Guidance Note 06/19 (Landscape Institute 2019). A technical methodology detailing the approach is provided in Appendix 7.1 (Landscape Designations) of the ES (Document Reference 6.3).
4.4.12	8.6.19, Tables 8.3–8.8	Receptor sensitivity	The Scoping Report outlines how receptor sensitivity, magnitude of impact and evaluation of the significance of landscape and visual effects arising from the Proposed Development will be categorised using typical criteria tables from the Design Manual for Roads and Bridges LA107 Landscape and visual effects (Highways England 2020). The ES should explain how sensitivity and impact magnitude are applied in relation to the guidance and explain how and where assumptions, professional judgement and sources underpin the assessment.	Chapter 7 (Landscape and Visual) of the ES (Document Reference 6.1) and Appendix 7.1 (Landscape and Visual Methodology) of the ES (Document Reference 6.3) sets out the methodology. A schedule of Landscape effects (Appendix 7.3 (Schedule of Landscape Effects) (Document Reference 6.3)) and visual effects (Appendix 7.4 (Schedule of Visual Effects) (Document Reference 6.3)) has also been prepared to set out the detail of how this has been applied.
Biodiv	versity			
4.5.1	Section 9.8, Table 9.3, and 9.5.3 in	Scope – 'elements' included versus specific receptors excluded	The text associated with Scoping Report Table 9.3 states that 'no elements' are to be scoped out for Biodiversity. The Table is very limited in detail and does not identify specific ecological receptors or types of anticipated impact or resulting effects. Contrastingly, Paragraph 9.53 does mention a specific receptor – Mottisfont	Noted - no response required.
	9.5.3 in Section		Contrastingly, Paragraph 9.53 does mention a specific receptor – Mottisfont Bats SAC, and states that no likely significant effects were concluded, with	



ID	Ref	Applicant's proposed matters toscope out / Other points	Inspectorate's comments	National Highways Response
	9.5		reference to the 'Stage 1 HRA'. It does not provide any justification or clarify if the ES will include this information.	
			Section 9.5 goes on to identify the River Itchen SSSI and Easton Down Site of Importance for Nature Conservation (SINC) as well as some other features as being potentially subject to significant effects, although these are discussed in very general terms. Not all receptors identified in the Biodiversity section of the Scoping Report are mentioned in this section nor any reason given for this.	
			For clarity, the Inspectorate agrees that none of the ecological features/receptors described in the Scoping Report can be scoped out. The ES must, as indicated in Paragraph 9.6.7, identify and all impact-effect pathways and assess the significance of effects. The ES should characterise impacts (i.e. describe their magnitude, extent, duration and timing, reversibility, and whether positive or negative) and justify the conclusions reached regarding the residual significant effects. The ES may draw on the conclusions of the HRA material to support such conclusions.	
4.5.2	5.1.36	Reporting of intra- project effects on the River Itchen system in a standalone section.	It is for the Applicant to determine the most appropriate way of presenting this assessment. However, the Inspectorate agrees that a standalone section may aid clarity over the likely effects on this sensitive feature and considers that it may also aid co-ordination with other related assessments i.e. the Habitats Regulations Assessment and Water Framework Directive assessment referred to in Paragraph 5.1.27.	Chapter 15 (Cumulative Effects) of the ES (Document Reference 6.1) presents the combined cumulative and cumulative assessment on the River Itchen system.
4.5.3	9.2.10, Figure 9.1	Plan of statutory and non-statutory designated sites	The Inspectorate welcomes the intended inclusion of plans in the ES. The Inspectorate considers that labelled plans showing the locations in relation to the Proposed Development of all designated sites described and assessed in the ES should be included, not solely those within 2km as indicated in the Scoping Report.	Figures 8.1 – 8.5 of the ES (Document Reference 6.2) show the locations (in relation to the Scheme) of all designated areas described within Chapter 8 (Biodiversity) of the ES (Document Reference 6.1) including those beyond 2km.
4.5.4	9.4.3	Mitigation measures	The Inspectorate welcomes the intention to include information on how embedded and essential mitigation will be delivered within the ES. The ES must clearly explain all mitigation measures applied to the assessment of significant residual effects and specify how each measure will be secured.	Chapter 8 (Biodiversity) of the ES (Document Reference 6.1) includes all proposed mitigation measures applied before undertaking the assessment of residual effects, and specifies how each measure would be legally secured, e.g. by a Requirement in the DCO (Document Reference 3.1) or in the fiEMP (Document Reference 7.3).
4.5.5	9.4.4	Detailed design	If the assessments in the ES rely on specific aspects of project design to be agreed with stakeholders post-consent, the ES should indicate the stakeholders involved, the mechanism for the process, and how it will be legally secured e.g. by DCO requirement.	Chapter 8 (Biodiversity) of the ES (Document Reference 6.1) includes details of all required mitigation, including any stakeholders involved, the mechanism for the process, and how it would be legally secured e.g. by a Requirement in the DCO (Document Reference 3.1) or in the fiEMP (Document Reference 7.3).



ID	Ref	Applicant's proposed matters toscope out / Other points	Inspectorate's comments	National Highways Response
4.5.6	9.4.5	First iteration EMP – mitigation strategies for known important ecological receptors	The Inspectorate understands from the Scoping Report that specific mitigation for these receptors will sit alongside more general project- wide mitigation measures in the Environmental Management Plan (EMP). The Inspectorate welcomes this approach and encourages the Applicant to engage with relevant stakeholders to agree these measures as far as possible in advance of the proposed DCO application. Clear cross-references should be provided in the ES to the EMP and any other relevant application documents.	National Highways has continued to consult with stakeholders to seek agreement on mitigation measures as far as possible in advance of the DCO application. Mitigation measures are outlined within Chapter 8 (Biodiversity) of the ES (Document Reference 6.1) and the fiEMP (Document Reference 7.3).
4.5.7	Table 9.1	Freshwater fish	The Scoping Report states that no more survey work is proposed to augment the desk study information, which relates to the River Itchen. It is not clear if any other water features are affected by the Proposed Development which could support notable fish species. If so, the Applicant should consider if further survey work is required and seek advice from relevant consultees in this regard. The Inspectorate would expect the ES to contain this information as part of a full explanation the assessment undertaken.	In addition to the desk study information collected in relation to fish, aquatic habitat surveys were undertaken in 2020 to assess habitat suitability for bullhead, Atlantic salmon and brook lamprey; qualifying feature species of the River Itchen Special Area of Conservation (SAC). In addition, surveys of the River Itchen have been undertaken for otter, water vole, and aquatic invertebrates. Results of desk study and surveys are presented in Chapter 8 (Biodiversity) of the ES (Document Reference 6.1). Other than the River Itchen system, no water features would be affected by the Scheme.
4.5.8	9.6.10	Biodiversity Net Gain (BNG)	The Inspectorate notes the intention to incorporate BNG principles into the design of the Proposed Development and how this will be addressed in the ES. The Inspectorate advises the Applicant to differentiate clearly in the ES between works associated with BNG and works which are necessary to deliver essential ecological mitigation on which the assessment in the ES relies. Details and methodologies of both ecological mitigation and BNG should be described in the ES.	Appendix 8.2 (Net Gain Assessment Report) of the ES (Document Reference 6.3) presents the results of a biodiversity metric calculation which assesses the predicted habitat losses and gains, with the aim of maximising biodiversity outputs from the Scheme in accordance with National Highway's performance targets. Chapter 8 (Biodiversity) of the ES (Document Reference 6.1) differentiates clearly between works associated with maximising biodiversity outputs, and those which are necessary to deliver essential ecological mitigation on which the assessment relies.
Geolo	ogy and So	oils		
4.6.1	Table 10.8	Effects on geology as a valuable resource i.e. sterilisation of mineral resources	The Inspectorate agrees that this can be scoped out of the geology and soils assessment as it is proposed to be included in the MaterialAssets and Waste assessment in the ES.	Noted - no response required.



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4.6.2	Table 10.8	Effects on geology and designated	The Scoping Report did not identify any designated geological or geomorphological sites or features of conservation value in the immediate area affected by the Proposed Development.	Noted - no response required.
		geological sites	The Inspectorate agrees to scope out an assessment of effects on geology and designated geological sites on this basis.	
4.6.3	14.1.3 and section 10.1	Study area	The proposed assessment includes impacts to surface waters. The Road Drainage and the Water Environment Chapter of the Scoping Report proposes a study area of the red line boundary of the Proposed Development plus a 500m buffer; this is based on hydraulic connectivity to the Proposed Development site.	The study area for Chapter 9 (Geology and Soils) of the ES (Document Reference 6.1) is variable, dependent on the feature / receptor – and source / pathway / receptor. In relation to surface waters this aligns with the study area for Chapter 13 (Road Drainage and Water Environment) of the ES (Document Reference 6.1).
			The study area for the Geology and Soils Chapter proposes the red line boundary of the Proposed Development plus a 250m buffer. The Inspectorate considers that these two study areas do not align and requests that the ES either explains the reasoning as to why they are different or apply the most appropriate study area to both.	
4.6.4	10.2.7, 10.2.10	Supporting Figures	The ES should supply a Figure depicting the location of receptors and geological elements within the study area (e.g. historic landfills, chalkpits, aquifers, source protection zones (SPZs), abstraction sites, rivers and flood plains etc.) in relation to the Proposed Development to enable understanding of potential impacts and effects.	Figure 9.1 (Environmental Information) of the ES (Document Reference 6.2) has been prepared to support Chapter 9 (Geology and Soils) of the ES (Document Reference 6.1), which shows relevant sensitive receptors and geological elements within the study area.
			This should also be used in the ES to support scoping out potential impacts such as historic landfill sites that are too far from the Proposed Development to cause an impact (paragraph 10.2.10); no distance or visual aid is provided to support this statement.	
4.6.5	2 to	investigations and further	A number of further surveys are proposed to be undertaken between paragraphs 10.2.2 and 10.2.37 to inform the baseline.	A preliminary ground investigation has been completed to help inform Chapte 9 (Geology and Soils) of the ES (Document Reference 6.1) and the Groun
	10.2. 37		Any surveys undertaken to inform the baseline and the assessment inthe ES should be appended to the relevant ES Chapter.	Investigation Report (Document Reference 7.11) has been submitted as part of the application.
4.6.6	Tables 10.2 and 10.3	Receptor sensitivity	The definition and justification of receptor sensitivity remains unclear; for example, Scoping Report Table 10.2 defines residential receptors as 'medium' sensitivity, yet it is defined as 'very high' sensitivity in Table 10.3.	Table 10.2 in the Scoping Report identified site specific receptors and their sensitivity with human health assessed as low and medium dependent on the nature of their relationship with the Scheme. It provided the generic receptor
			The ES should define and justify receptor sensitivity in line with the relevant guidance and/or consultation and ensure that this is consistent throughout the ES assessment.	sensitivity that forms part of the significance criteria and taken from LA 109 (Highways England, 2019). Table 10.3 allows for a range of sensitivity levels for human health – based on the relationship/use of a given site/development, with a range between negligible and very high. Accordingly, Tables 10.2 and 10.3 in the Scoping Report were accurate and are repeated in Chapter 9 (Geology and Soils) of the ES (Document Reference 6.1) .



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4.6.7	Section 10.4	Construction activities - Piling	Whilst construction activities are not currently confirmed, paragraph 10.4.3 anticipates that piling may be undertaken. Piling createspathways for contamination. The ES should assess any potential contamination impacts as a resultof piling and secure specific, appropriate mitigation measures agreedthrough consultation with the relevant statutory bodies including mitigating potential bentonite breakouts where relevant.	A geoenvironmental risk assessment and Stage 1 Tier 2 Generic Quantitative Risk Assessment (GQRA) for controlled waters has been undertaken to enable potential impacts to controlled waters to be assessed. The Geoenvironmental Assessment in the Ground Investigation Report (Document Reference 7.11) indicates a low potential for significant contamination to be present. Further to this, the requirement for design specific Foundation Works Risk Assessments (FWRA) are secured within the fiEMP (Document Reference 7.3). The FWRA would provide an assessment of the risk (specific to the selected foundation solution and ground conditions at each feature/structure) and any additional appropriate mitigation measures required and would be agreed with the relevant statutory bodies as part of the detailed design and included within the siEMP.
4.6.8	2.4.37 to 2.4.42, 10.3.3, Table 10.5 and section 10.4	Release of carbon and impacts toland receiving excavated soil	Scoping Report Paragraph 10.3.3 proposes that impacts to soils are to be included in the Geology and Soils assessment of the ES and the quantities will be defined in the design stage (determined in Chapter 11, Materials and Waste). Impacts from excavated soils should be included in the ES assessment where significant effects are likely to occur, including impacts from the release of carbon and on the land receiving the excavations which should be identified in the ES.	As noted in the Scoping Report, land use change (which includes soil movements), has been assessed within Chapter 14 (Climate Change) of the ES (Document Reference 6.1).
Miner	als and W	aste		
4.7.1	Table 11.11an d 11.3.3	Materials consumption and waste generation and management during operation	During operation, the quantity of materials used and waste producedas a result of the Proposed Development is anticipated to be small due to the nature of the development. The Inspectorate agrees that impacts associated with the consumption of material resources, site arisings and waste production during operation is unlikely to result insignificant effects. However, the Inspectorate considers that this matter should be considered where likely significant effect may occur.	Noted, impacts associated with the consumption of material resources, site arisings and waste production during operation would not result in significant adverse effects, therefore have not been assessed within the Chapter 10 (Material Assets and Waste) of the ES (Document Reference 6.1). Significant effects are not predicted owing to the very limited materials and waste generated during operation / maintenence.
4.7.2	Table 11.7	Minerals safeguarding area andpeat resources	The ES should provide a Figure locating any mineral safeguarding areas and/or peat deposits within the study area to enable understanding of potential impacts on these receptors.	Figure 10.1 (Mineral Safeguarding Areas) of the ES (Document Reference 6.2) presents the Mineral Safeguarding Area and the the Application Boundary. There has been some peat identified in the area of the proposed footbridge across the River Itchen within the Application Boundary. However, it is not a mineral that is safeguarded, and also at a depth where it would be retained in situ and not affected. Therefore, this is not considered within the ES chapter.



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4.7.3	Table 11.6	Mitigation	The Inspectorate is content with the embedded mitigation measures set out in Table 11.6. The proposed Materials Management Plan is included during the construction phase; this should be consulted and agreed upon with the relevant bodies before being implemented during construction. The Applicant should endeavour to agree mitigation measures, both embedded and additional, with the relevant consultation bodies and reference any such consultation in the ES.	Statutory environmental bodies (including the Environment Agency, Natural England and the South Downs National Park Authority have been consulted during the Scheme design. In particular, consultation with the South Downs National Park Authority has informed the Scheme design and the proposed re-profiled landscape on the eastern escarpment of the Scheme as it rises in elevation. This design provides mitigation to reduce the Scheme's intervisibility to the South Downs National Park and directly influenced the amount of construction waste, reported in Chapter 10 (Material Assets and Waste) of the ES (Document Reference 6.1). Mitigation is also outlined within the fiEMP (Document Reference 7.3).
4.7.4	11.6.6	Sourcing of materials	Where the materials required to construct the Proposed Development will be sourced and transported from and their method of transportation should be included in the assessment of significant effects.	Chapter 10 (Material Assets and Waste) of the ES (Document Reference 6.1) assesses the likely impacts of the volume and composition of the construction materials and any waste generated during construction. Where materialswould be sourced and transported are not known owing to the stage of the Scheme – preliminary design. However, consideration of the transportation of construction materials has been assessed within Chapter 5 (Air Quality) of the ES (Document Reference 6.1) and Chapter 11 (Noise and Vibration) of the ES (Document Reference 6.1) respectively.
4.7.5	10.3.1.	Impacts from imported materials and storage of materials on site	Materials may be required to be imported to the site for construction and also there will be stored materials on site i.e. spoil. The ES should include an assessment of the importation and/or storage of these materials (e.g. leachate impacts) where significant effects are likely to occur. Details on mitigation measures to prevent/avoid such impacts should be included and secured in the Application.	Consideration of impacts from imported materials / storage of materials and associated mitigation is addressed within Chapter 13 (Road Drainage and the Water Environment) of the ES (Document Reference 6.1). Mitigation measures to prevent / avoid impacts are also outlined within the fiEMP (Document Reference 7.3).
4.7.6	Chapter 11	Potential for existing contamination	The construction phase of the Proposed Development has the potential to generate road plannings/waste which may contain coal tars. The ES does not consider such arisings during demolition and construction. Such materials are classified as hazardous waste and should be dealt with accordingly. The ES should assess impacts associated with these materials where significant effects are likely to occur.	The assessment of effects from hazardous waste is reported in Chapter 10 (Material Assets and Waste) of the ES (Document Reference 6.1). Mitigation measures are outlined within the fiEMP (Document Reference 7.3).
Noise	and Vibra	ation		
4.8.1	N/A	N/A	No matters have been proposed to be scoped out of the assessment	Noted - no response required.



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4.8.2	Chapter 12	Diversion routes	Diversion routes and potential traffic flows are not yet determined in the Scoping Report. The ES should locate and describe any traffic management measures and explain any subsequent changes in traffic flow; the ES should report any	Preliminary information of temporary diversion routes is included within Chapter 2 (The Scheme and its Surroundings) of the ES (Document Reference 6.1) .
			noise impacts and effects that might derive from this.	Chapter 2 (The Scheme and its Surroundings) of the ES (Document Reference 6.1) also describes the necessary traffic management measures and associated changes in traffic flows.
				The temporary diversion routes have been considered and assessed within Chapter 11 (Noise and Vibration) of the ES (Document Reference 6.1).
4.8.3	12.2.6	Timing of noise surveys	Scoping Report paragraph 12.2.6 states that the extent and locations for baseline sound monitoring will be agreed with the LPA in advance. The duration and timings of the surveys should also be agreed with the LPA to ensure that they are representative.	The duration and timings of the surveys were agreed with Winchester City Council in November 2020.
4.8.4	Chapter 12	· •	The Scoping Report refers to a scoping area and calculation area throughout Chapter 12, but these are not defined and it is unclear whether they are the same or different areas. Additionally, Table 12.1 provides a list of sensitive receptors identified as being located withinthe calculation area (paragraph 12.2.9) but since it is not currently defined, the Inspectorate cannot have confidence that this is a complete and accurate list.	The calculation and study areas are the same. However, Chapter 11 (Noise and Vibration) of the ES (Document Reference 6.1) only refers to the study area – which is also defined within the chapter and was used to identify sensitive receptors. The study area and sensitive receptors have been identified and are presented in Figure 11.1 (Noise and Vibration Study Areas and Monitoring Locations) of the ES (Document Reference 6.2) .
			The ES should explain whether the calculation and study areas are different and if so, how. These areas should be defined based on the ZOI and identified on a supporting Figure and sensitive receptors within the study area should be identified in line with the methodology set out.	
4.8.5	12.1.1	Inclusion of diverted routes in study area	The study area is proposed to only include diverted routes where full carriageway closures are required during the night suggesting that any other types of diversion, i.e. during the day or partial closures, will not be included in the study area.	National Highways presented the study areas within the Preliminary Environmental Impact Report (PEIR) (Highways England 2021). Winchester City Council confirmed acceptability of the proposed study areas.
			The ES should define the study area based on the ZOI which should include potential impacts from all forms of traffic management. Effort should be made to agree the study area with the relevant consultation bodies.	



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4.8.6	12.2.13, 12.6.6 and 12.6.28	Road Investment Strategy (RIS) and Noise Important Areas (NIAs)	The ES should demonstrate how the Proposed Development aligns with the objectives of the RIS and provisions of the Round 3 NIAs, three of which the Proposed Development passes through as illustrated in Scoping Report Appendix 2.1, Figure 2.2. Scoping Report paragraph 2.6.28 says that particular consideration will be given for noise changes at NIAs in terms of magnitude of impact; impact magnitude criteria is set out in Table 12.4 and it is not explained what 'particular consideration' would entail. Where assessment diverges from the methodology the ES should explain and justify how it has changed and for what reason. Effort should be made to agree alternative approaches with the relevant consultation bodies.	Chapter 11 (Noise and Vibration) of the ES (Document Reference 6.1) demonstrates how the Scheme aligns with the noise requirements of the Road Investment Scheme. The assessment outcome in terms of noise change within NIAs is provided within Chapter 11 (Noise and Vibration) of the ES (Document Reference 6.1).
4.8.7	12.6.25	Predicted future noise	The ES should include and justify the assumptions they have made in relation to future operation and resulting anticipated noise impacts and effects taking into account changes in vehicle fleet and fuel source, where relevant.	Chapter 11 (Noise and Vibration) of the ES (Document Reference 6.1) considers the resulting noise impacts and effects taking into account change in vehicle fleet and fuel source, where relevant in accordance with the DMRB LA 111 (Highways England, 2020).
4.8.8	12.7.4	Assumptions and Limitations and worst-case scenario	A number of assumptions are anticipated regarding the number, type,operation and location of plant machinery used for construction. Where these assumptions form the basis of the assessment, a reasonable worst-case scenario should be described, and the ES should explain why it is appropriate. Effort should be made to agree this approach with the relevant consultation bodies.	Construction information has been provided by the Scheme's Principal Contractor regarding the number, type, operation and location of plant machinery. The Principal Contractor has based this information on anticipated worst-case activities based on experience from similar previous schemes. S42 responses received from Winchester City Council confirmed that the Local Planning Authority was satisfied with the approach outlined in the PEIR which is also replicated in Chapter 11 (Noise and Vibration) of the ES (Document Reference 6.1).
Popu	lation and	Human Health		
4.9.1	N/A	N/A	No matters have been proposed to be scoped out of the assessment	No response required.
4.9.2	Section 13.2and Figure 13.1	Baseline Figure	The only Figure accompanying Chapter 13 of the Scoping Report identifies the study area of the assessment. The sensitive receptors characterising the baseline have been described in section 13.2. It is important to understand the location of the sensitive receptors in relation to the Proposed Development to give context to the assessment of significant effects. The ES should include a Figure depicting the location of sensitive receptors within the study area to support the assessment of likely significant effects.	 The location of specific sensitive receptors are provided in Figures 12.3-12.6 of the ES (Document Reference 6.2) as follows: Figure 12.3 (Agricultural Land Holdings) of the ES (Document Reference 6.2) shows the agricultural land holdings within the Application Boundary Figure 12.4 (Community Land and Assets) of the ES (Document Reference 6.2) shows the community land and assets within the Application Boundary and within 500m of the Application Boundary Figure 12.5 (Development Land and Businesses) of the ES (Document Reference 6.2) shows the development land and businesses



ID	Ref	Applicant's proposed matters toscope out / Other points	Inspectorate's comments	National Highways Response
				 within the Application Boundary and within 500m of the Application Boundary Figure 12.6 (Walking, Cycling and Horse-riding) of the ES (Document Reference 6.2) shows the walking, cycling and horse-riding receptors within the Application Boundary
4.9.3	13.1.4 to 13.1.10	Study area	The proposed study area is up to 2km from the red line boundary of the Proposed Development. Public Health England highlight that the usual walking commute is approximately 2 miles and cycling commute up to 3 miles therefore the study area does not appear appropriate. The ES should fully justify the study area based on the Zol.	Various study areas are proposed in Chapter 12 (Population and Human Health) of the ES (Document Reference 6.1). A 500m study area has been adopted for the land use and accessibility assessment which is considered appropriate and proportionate to assess likely significant effects on population and human health receptors at the local level. The 500m study area aligns with DMRB LA 112 Population and human health (Highways England, 2020), which recommends a 500m boundary is used (and increased or decreased where appropriate). A further 5km study area has been considered for the walking, cycling and horse-riding receptors to capture any indirect effects on the wider PRoW network. The human health assessment considers health profiles of local communities at the ward level, which is shown on Figure 12.2 (Human Health Study Area) of the ES (Document Reference 6.2).
4.9.4	7.2.4 and Tables 13.4 and 13.5	Accounting for anomalies causedby the COVID-19 pandemic	Some statistics in Chapter 13 of the Scoping Report derive from the Office of National Statistics Annual Population Survey in 2020, for example, Tables 13.4 and 13.5. The COVID-19 pandemic has disrupted the socio-economic activity across the UK throughout 2020. The ES should explain how the pandemic may have affected baseline figures deriving from 2020 data and how the baseline, where informed by 2020 data, is representative and appropriate to inform the assessment of significant effects.	Following further consideration of Chapter 12 (Population and Human Health) of the ES (Document Reference 6.1) all economic / socio-economic data was removed from the chapter. This was to ensure the assessment undertaken was in accordance with the DMRB LA112 Population and human health (Highways England, 2020) and because economics are better considered within other DCO documents including the Combined Modelling and Appraisal Report (Document Reference 7.10). How the effects of Covid-19 have affected the chapter are considered / embedded throughout Chapter 12 (Population and Human Health) of the ES (Document Reference 6.1).



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4.9.5	Table 13.14	Human Health Significance	A significance matrix is provided at Scoping Report Table 13.14 which combines the sensitivity and impact magnitudes defined in Tables 13.12 and 13.13. Sensitivity and impact magnitude for Human Health are defined differently to other receptors in these tables and the significance matrix will not apply. No other definitive methodology other than a 'qualitative assessment' has been put forward.	Chapter 12 (Population and Human Health) of the ES (Document Reference 6.1) adopts the methodology set out in the DMRB LA 112 Population and human health.
			The ES should clearly set out a methodology by which the significance of effects on Human Health are assessed and determined.	
4.9.6	13.7.2 and Table 13.14	Significance terminology	Scoping Report paragraph 13.7.2 states that effect termed moderate or major will be deemed significant however, in the matrix in Table 13.14 effects are termed 'large' and 'very large' rather than 'major'. The ES should use consistent terminology across all the Chapters to avoid any confusion as to the assessment and conclusions of significant effects.	Consistent terminology has been adopted, using guidance outlined in the DMRB LA 104 Environmental assessment and monitoring (Highways England, 2020) within Chapter 12 (Population and Human Health) of the ES (Document Reference 6.1).
Road	Drainage	and the Water Envir	onment	
4.10.1	14.3.2	2 Assessment of nutrient neutrality	An assessment of nutrient neutrality is proposed to be scoped out on the basis that no new residential development or overnight stays are required for the Proposed Development. The Applicant references Natural England guidance in this respect and Winchester City Council's position statement; this guidance and position statement are not referenced therefore it is unclear what information is being referred to.	In line with Natural England guidance Advice on Achieving Nutrient Neutrality for New Development in the Solent Region (Version 4, dated March 2020) paragraph 4.12 and Winchester City Council's (WCC) Position Statement on Nitrate Neutral Development dated February 2020, the applicant considers that due to the absence of overnight stays associated with the Scheme, effects would not be significant.
			In the absence of more detailed justification and agreement to this approach from Natural England, the Inspectorate cannot agree to scope this out of the ES. The ES should determine where nutrients have potential to enter the water environment as a result of the Proposed Development and assess significant effects where they are likely to occur as a result.	Consultation has been completed with Natural England to confirm the requirement of a Nutrient Neutrality Assessment (meeting of 19 January 2021). It was confirmed that a formal Nutrient Neutrality Assessment would not be required because of the lack of likely significant effects, however consideration has been given to nutrients with the assessments which have been completed, including a Highways England Water Risk Assessment Tool (HEWRAT) assessment.
4.10.2	14.2.5	Impact pathway/recepto r: Itchen Navigation	The Itchen Navigation located 5km downstream from the site is proposed to be excluded from assessment due to being located toofar away from the Proposed Development. It is unclear from the Scoping Report whether this is being scoped out as a receptor or impact pathway. The Itchen Navigation is <5km from the red line boundary and downstream of the River Itchen so this statement appears to be incorrect. Other waterbodies such as the Southampton and Solent Water Special Protection Area are included in the assessment which are located 16km downstream of the Proposed Development. In the absence of a more detailed justification, the Inspectorate therefore, does agree to scope out the Itchen Navigation from the	Although located further than 1km from the Application Boundary, the River Itchen Navigation Canal (a heavily modified water body located just under 5km to the south of the site) has been included in the assessment within Chapter 13 (Road Drainage and the Water Environment) of the ES (Document Reference 6.1 due to its status as a WFD designated waterbody.



ID	Ref	Applicant's proposed matters toscope out / Other points	Inspectorate's comments	National Highways Response
			ES assessment.	
			The ES should assess impacts to receptors where significant effects are likely to occur.	
4.10.3	14.1.3	Study area and Figure	The proposed study area is the red line boundary plus a 500m buffer. This is not depicted on a Figure.	The overall study area within Chapter 13 (Road Drainage and the Water Environment) of the ES (Document Reference 6.1) has considered the Zone
		depictingstudy area and receptors	It is stated that the ES will fully justify and explain the rationale behind adapting the study area during the progression of the design. The ES should explain how the ZoI and hydrological connectivity of the site has informed the study area extent. The ES should include asupporting Figure locating the study area and	of Influence (ZOI) and hydrological connectivity of land within the Application Boundary. It also comprises the maximum physical extent of the Application Boundary, plus a buffer zone of 1km and beyond if appropriate as raised by stakeholders in response to the PEIR.
			receptors.	Further justification of the ZOI and study area assessed is included in Chapter 13 (Road Drainage and the Water Environment) of the ES (Document Reference 6.1) .
				Figure 13.1 (Study Area and Receptors) of the ES (Document Reference 6.2) shows the study area and receptors considered within Chapter 13 (Road Drainage and the Water Environment) of the ES (Document Reference 6.1).
4.10.4	7.3.3	River Crossings The Applicant proposes to cross the River Itchen at three locations including new bridge crossings/widening of existing crossings. The details regarding these proposed crossings are limited in the Scoping Report.	Although there are three crossings of the River Itchen only one new crossing is proposed over the river. Chapter 13 (Road Drainage and the Water Environment) of the ES (Document Reference 6.1) considers the methods	
			The ES should include the methods proposed to cross the river including the construction activities, timings and extent. Effort should be made to agree the river crossing solutions with the relevant consultation body and significant effects should be assessed where they are likely to occur.	The new foot and cycle bridge crossing has been designed to avoid intrusive works within the river channel and ensures a clear span structure with abutments set back from the riverbank to reduce impacts on the water environment. The bridge crossing has been designed in consultation with the Environment Agency. Mitigation measures are outlined within Chapter 13 (Road Drainage and the Water Environment) of the ES (Document Reference 6.1 and the fiEMP (Document Reference 7.3). Mitigation measures have also been discussed with Natural England and the Environment Agency.
4.10.5	10.2.20 and 14.2.18	Groundwater monitoring	Groundwater monitoring has been undertaken across the M3 J9 site since 2019. This data will inform the baseline in terms of groundwater levels, fluctuations and quality. It is stated that it will form part of the baseline assessment, but it is unclear what other data will be used to inform the baseline. The ES should explain how the data provides representative information on which to base assessments and make effort to agree the baseline scenario with the EA and any other relevant consultation bodies.	Groundwater monitoring data (levels, flow direction, water quality and infiltration rates), ground investigations, hydraulic modelling and assessment of existing discharge rates have all been used to inform the drainage design (Appendix 13.1 (Drainage Strategy Report) of the ES (Document Reference 6.3), HEWRAT Assessment (included in the Drainage Strategy Report) and Hydrogeological Risk Assessment (Appendix 13.2 (Hydrogeological Risk Assessment) of the ES Document Reference 6.3). The baseline assessments are summarised in Chapter 13 (Road Drainage and the Water Environment) of the ES (Document Reference 6.1). The results of the HgRA have been



ID	Ref	Applicant's proposed matters toscope out / Other points	Inspectorate's comments	National Highways Response
				The Flood Risk Assessment (Document Reference 7.4) is in agreement with the conclusions of the hydraulic modelling and assessment of flood risk.
				The assessment of the existing drainage regime and the proposed surface water drainage strategy has been prepared in consultation with EA and LLFA and has been reviewed by both.
4.10.6	14.2.28 and 14.6.18	River Itchen catchment area, climate change allowances and theFlood Risk	Scoping Report paragraph 14.2.28 states that the River Itchen Flood Modelling (2019) used climate change projection change factors of 35%, 45% and 105% in line with government guidance 'Flood Risk Assessments: Climate Change Allowances' (updated 22 July 2020). However, it is not stated which climate change allowances will be used for the Flood Risk Assessment (FRA).	Noted, the Flood Risk Assessment (Document Reference 7.4) defines the catchment area and applies appropriate climate change allowances. Agreement on climate change allowances has been confirmed with Environment Agency.
		Assessment (FRA)	The FRA should define the catchment area of the River Itchen and apply the appropriate climate change allowances in line with government guidance 'Flood Risk Assessment: Climate Change Allowances' to the assessment. Effort should be made to agree the approach to the FRA with the relevant consultation bodies.	
4.10.7	14.2.3 4 to 14.2.3 8	Extent of Reservoir and groundwater flooding	Scoping Report paragraph 14.2.38 states that the northern extent of the study area is at risk of flooding in the event of a failure of the Old Alresford Pond; it states that this will be similar in extent as river flooding, but the extent is not defined. Additionally, the extent of groundwater flooding is not defined.	The extent and risk of ground and reservoir flooding has been defined in the Flood Risk Assessment (Document Reference 7.4). The information within the Flood Risk Assessment was used to inform and undertake the assessment of likely significant effects in Chapter 13 (Road Drainage and the Water Environment) of the ES (Document Reference 6.1).
			The ES should define the extent and risk of both groundwater and reservoir flooding to and from the Proposed Development where there is potential for likely significant effects. This should be supported by a Figure.	The extents of all estimated and recoded flood extents from all sources are shown on Figures included in Appendix A of the Flood Risk Assessment (Document Reference 7.4).
4.10.8	14.2.41 and 14.3.5	Flood Risk from temporary and permanent sewers/draina ge systems	Scoping Report paragraph 14.2.41 states that historic flood events in Winchester record floods between 1997 to 2006 with sources identified as a combination of groundwater, fluvial flooding and foul/combined systems. The FRA submitted to inform the ES should address each of the relevant sources of flooding identified.	Relevant sources of flooding have been included and assessed in the Flood Risk Assessment (Document Reference 7.4). The information within the Flood Risk Assessment was used to inform and undertake the assessment of likely significant effects in Chapter 13 (Road Drainage and the Water Environment) of the ES (Document Reference 6.1).



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4.10.9	14.4. 2 to 14.4. 7	Piling impacts and mitigation	Whilst impacts as a result of construction activities are proposed to be included in the ES assessment, there is no specific reference to impacts from piling and potential bentonite breakout (piling fluid). The ES should detail the piling methods and locations and potential impacts from these construction activities on the water environment, including groundwater sources.	Chapter 9 (Geology and Soils) of the ES (Document Reference 6.1) identifies that for piling works, a FWRA would be undertaken once final foundation solutions are known (this document is secured by the fiEMP (Document Reference 7.3) and Requirement 3 within the draft DCO (Document Reference 3.1). If appropriate, consideration of bentonite breakout would be addressed within the FWRA.
			Mitigation should include a plan for the event of a bentonite breakout which should be secured via the DCO; effort should be made to agreethe details of the plan with the relevant consultation bodies.	that for piling works, a FWRA would be undertaken once final foundation solutions are known (this document is secured by the fiEMP (Document Reference 7.3) and Requirement 3 within the draft DCO (Document Reference 3.1). If appropriate, consideration of bentonite breakout would be addressed within the FWRA. No piling works are proposed for the construction of the new outfalls or the bridge crossing at the River Itchen (i.e. works within 8m of watercourse). This is confirmed in the assessment of potential impacts in Chapter 13 (Road Drainage and the Water Environment) of the ES (Document Reference 6.1). Details of the proposed permanent surface water drainage strategy are included within Appendix 13.1 (Drainage Strategy Report) of the ES (Document Reference 6.3) and summarised in Chapter 13 (Road Drainage and the Water Environment) of the ES (Document Reference 6.1) as part of the embedded mitigation measures and secured through the fiEMP (Document Reference 7.3). The Temporary (Construction) Drainage Strategy is outlined in the fiEMP (Document Reference 7.3). Consultation has been ongoing with the Environment Agency and Lead Local Flood Authority (and Natural England regarding the Temporary (Construction) Drainage Strategy with regards to the proposed drainage measures and this is detailed in Chapter 13 (Road Drainage and the Water Environment) of the ES (Document Reference 6.1). Water abstractions are identified within Chapter 13 (Road Drainage and the Water Environment) of the ES (Document Reference 6.1) and the assessment of effects in relation to the groundwater Water Framework Directive body and in the Hydrogeological Risk Assessment (Appendix 13.2 (Hydrogeological Risk Assessment) of the ES Document Reference 6.3) and Water Framework Directive Assessment (Document Reference 7.7).
4.10.10	Section 14.4	Mitigation	The Scoping Report identifies that a temporary drainage strategy will be prepared for the construction phase and will be outlined in the ES and secured through the First and Second Iteration Environmental Management Plan (fiEMP and siEMP). Details of both temporary and permanent drainage features should be included in the ES and construction, operational and decommissioning impacts of these	included within Appendix 13.1 (Drainage Strategy Report) of the ES (Document Reference 6.3) and summarised in Chapter 13 (Road Drainage and the Water Environment) of the ES (Document Reference 6.1) as part of the embedded mitigation measures and secured through the fiEMP
			features should be assessed in the ES where significant effects are likely. Effort should be made to agree the embedded and additional mitigation measures with	, , ,
			the relevant statutory consultation bodies to ensure that they are appropriate.	Flood Authority (and Natural England regarding the Temporary (Construction) Drainage Strategy with regards to the proposed drainage measures and this is detailed in Chapter 13 (Road Drainage and the Water Environment) of the
4.10.11	14.2.25	Water abstraction licences	It is unclear whether impacts to licenced and non-licenced groundwater abstractions will be assessed in the ES. For clarification purposes, the ES should identify water abstractions within the study area and assess significant effects where they are likely to occur.	Water Environment) of the ES (Document Reference 6.1) and the assessment of effects in relation to the groundwater Water Framework Directive body and in the Hydrogeological Risk Assessment (Appendix 13.2 (Hydrogeological Risk Assessment) of the ES Document Reference 6.3)
Climate				
4.11.1	15.5.4 and Table 15.12	Construction – vulnerability of theProposed Development to climatechange	Due to the short term and temporary nature of construction it is anticipated that climate change will not significantly affect the workforce. The Inspectorate agrees that this matter can be scoped out of the assessment. Where extreme events occur, established procedures should be adhered to, to protect the workforce.	Noted - no response required.



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4.11.2	Table 15.12	Decommissioning	The Proposed Development is not anticipating being decommissioned and should decommissioning occur, this would be beyond the period of projected UK Government carbon budgets.	Noted - no response required.
			The Inspectorate agrees that impacts from decommissioning can be scoped out of the assessment on this basis.	
4.11.3	15.2.9	Modelled GHG emission scenarios	Scoping Report paragraph 15.2.9 indicates that the end-user GHG emissions from traffic flows will be modelled using the strategic and affected road network. Modelling is not proposed for the construction phase yet the number of vehicle movements/use of plant machinery and construction timing and extent is currently unknown and could increase the impact on carbon emissions of the Proposed Development as a whole. Modelling should be completed for both construction and operational phases of the proposed development. Any modelling should be appended to the ES.	Modelling of construction and operation GHG emissions has been undertaken and reported in Chapter 14 (Climate) of the ES (Document Reference 6.1. Appendix 14.1 (Construction GHG Assessment Calculations) and Appendix 14.2 (Operation GHG Assessment Calculations) of the ES (Document Reference 6.3) includes GHG emission calculations.
4.11.4	Table 15.7,	5.7, soils and release of GHG emissions	t of Currently the amount of soil to be stripped/moved is unknown. These processes release carbon from the soil which is a carbon store.	The anticipated amount of soil to be moved is 384,150m³ as set out in Chapter 2 (The Scheme and its Surroundings) of the ES (Document Reference 6.1).
	15.3.1 and 15.6.12		Additionally, this is not included in Table 15.7 of the Scoping Report as GHG emission sources.	GHGs from the transportation of soils has been assessed within Chapter 14 (Climate) of the ES (Document Reference 6.1), including GHGs from land use
			The ES should define the amount of soil to be moved and the subsequent carbon emissions from this and assess any significant effects where they are likely to occur.	change (which includes soil disturbance), which have been assessed qualitatively to determine the significance level of effects.
4.11.5	Table 15.6 and	I	Table 15.6 of the Scoping Report states that the potential to reduce carbon emissions through operation of the Proposed Development will be explored.	A Transport Assessment (Document Reference 7.13) has been prepared for the Scheme.
	15.6.6		The Chapter does not propose to use a transport assessment to inform the assessment of significant effects. Additionally, the government's 'Road to Zero' strategy has committed to stopping the sale of diesel and petrol cars and vans by 2040; this should be taken into account in the assessment.	The 'Road to Zero' and other Government strategies to reduce GHG emissions associated with transport have been considered within Chapter 14 (Climate) of the ES (Document Reference 6.1). Chapter 14 (Climate) of the ES (Document Reference 6.1) reports the assessment which has utilised transport data for the Scheme to model the potential GHG emissions resulting from end-users.
			The ES should include a transport assessment and use this to inform the assessment of the potential adverse and/or beneficial significant effects from the release/reduction in carbon emissions.	
4.11.6	15.4.2	Mitigation	Where mitigation is proposed to reduce the vulnerability of the Proposed Development to climate change, effort should be made to agree these measures with the relevant consultation bodies to ensure that they are appropriate.	The Drainage Strategy for the Scheme (Appendix 13.1 (Drainage Strategy Report) of the ES (Document Reference 6.3)) has been prepared in consultation with the Environment Agency. The planting strategy within Figure 2.3 (Environmental Masterplan) of the ES (Document Reference 6.2) has also been discussed with Natural England. See Chapter 7 (Landscape and Visual), Chapter 8 (Biodiversity) and Chapter 13 (Road Drainage and the Water Environment) of the ES (Document Reference 6.1) together with the



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4.11.7	15.6.7 and 15.6.1 4	Explanation of how professional judgement has been applied to achieve assessment conclusions	Scoping Report paragraph 15.6.7 states that the assessment will only report significant effects where they have a material impact on the ability of the government to meet carbon commitments. Paragraph 15.6.14 then states that any increase in GHG emissions is considered significant in line with IEMA guidance. Assumptions and limitations in section 15.7 include that there is uncertainty surrounding the methodology used to assess impacts to and from climate change. Professional judgement is proposed to determine impact magnitude to inform the significance of effects. The ES should provide a full explanation of how professional judgement has determined the magnitude of impact and subsequently the significance of effects and how this has materially impacted the government's ability to meet carbon commitments to give the Inspectorate confidence in the assessment and its conclusions. The assessment should clearly set out the approach to the assessment of other cumulative projects including other roads schemes.	The methodology for determining the significance of effects resulting from GHG emissions is set out in Chapter 14 (Climate) of the ES (Document Reference 6.1) . Effects have been determined and justified (with explanation) by professional judgement in the context of sectoral, local and national carbon budgets in Chapter 14 (Climate) of the ES (Document Reference 6.1) , as per the DMRB LA 114 Climate (Highways England, 2021). The GHG emissions from other road schemes have been accounted for within the transport data from which the end-user GHG emissions have been calculated. Therefore, the assessment of GHG emissions is inherently cumulative and have not been reported within Chapter 15 (Cumulative Effects) of the ES (Document Reference 6.1) .
4.11.8	Table 15.8	Likelihood categories	Scoping Report Table 15.8 lists the likelihood of an extreme event happening based on DMRB guidance. Both the 'low' and 'very low' categories describe the same threshold where an event happens once within 60 years. These categories feed into how the significance of an effect is determined in Table 15.10 of the Scoping Report. The Applicant should explain why a particular likelihood category has been applied referencing professional judgement as appropriate.	Table 15.8 in the Scoping Report (also within Chapter 14 (Climate) of the ES (Document Reference 6.1)) that defines the likelihood categories has been sourced from the DMRB LA 114 Climate (Highways England, 2021). Chapter 14 (Climate) of the ES (Document Reference 6.1) explains and justifies the likelihood category applied within the climate vulnerability assessment.
Cumu	lative effec	ts		
4.12.1	16.3.6 to 16.3.8	Traffic related air quality and noise	As traffic related air quality and noise impacts are already the basis ofthe air quality and noise assessments, this is not proposed to be assessed as a separate topic in the cumulative chapter. On the basis that traffic modelling accounts for future growth, air quality and noise assessments are considered to be inherently cumulative. Therefore, the Inspectorate agrees with this approachand is content to scope out this matter.	Noted - no response required.



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4.12.2	16.3.11	Climate vulnerability	Vulnerability to climate change is specific to the Proposed Development and will not result in impacts to neighbouring developments and cumulative effects. The Inspectorate is content toscope this matter out of the cumulative assessment on this basis.	Noted - no response required.
4.12.3	16.3.12	Materials and Waste	The Applicant explains that waste capacity and materials availabilityare based on future regional demand projections including landfill void capacity and are inherently cumulative. Therefore, cumulative effects from materials and waste are assessed in the individual chapters. On this basis, the Inspectorate is content to scope this matter out.	Noted - no response required.
4.12.4	Table 16.1	Receptors	It is not made clear which receptors are being referred to where thereare potential interrelationships between aspects. For example, 'Residents along the existing Road Network' and 'Residents close to the Proposed Scheme' – it is unclear whether these receptors are the same.	The receptors in Chapter 15 (Cumulative Effects) of the ES (Document Reference 6.1) have been split up into the following groups: River Itchen, Agricultural land, South Downs National Park, Public Rights of Way Network, Magdalen Hill Cemetery, Worthy Park Historic Park and Gardens and habitats as these are the receptors with potential to experience combined effects.
4.12.5	Table 16.2	Study areas	In previous aspect reviews in this Scoping Opinion, there have been comments relating to the justification and application of study areas. The ES should assess the cumulative effects based on fully justifiedstudy areas from the individual aspect Chapters, unless other justified.	The justification for the study areas is set out in Table 15.1 in Chapter 15 (Cumulative Effects) of the ES (Document Reference 6.1).
4.12.6	16.3.14	Identification of 'other developments and long list of developments	Effort should be made to agree the of the list of other developments and relevant aspects for assessment with the Local Planning Authority.	WCC reviewed the list of other developments provided in the EIA Scoping Report and requested that the following sites were included: Strategic growth site in Eastleigh Local Plan – the new link road to J10 of the M3 and the M3 J9 Motorway Upgrade. These developments were included and assessed in Chapter 15 (Cumulative Effects) of the ES (Document Reference 6.1).
Late S	Scoping Co	nsultation Responses		
	Environment Agency (Late Response)		Introduction Overall, we are generally pleased with the scope of the report and the range of topics that have been proposed to be included within the Environmental Statement (ES). https://infrastructure.planninginspectorate.gov.uk/projects/south-east/m3-junction-9-improvement/?ipcsection=docs	Noted – no response required.
	Environment Agency (Late Response)		Our primary concerns regarding the scheme relate to the protection of groundwater, and protection/enhancement of the ecological balance and species within the River Itchen and surrounding areas (including biodiversity net gain). The River Itchen is a designated Main River, and the river and the associated floodplain is a Special Area of Conservation (SAC) and Site of	Potential effects to biodiversity receptors including the River Itchen SAC/SSSI have been key to the design and assessment process, resulting in a range of avoidance and mitigation measures which will ensure no significant effects, and provide gains for biodiversity through substantial habitat creation measures.



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			Special Scientific Interest (SSSI).	Potential effects to groundwater receptors including the River Itchen WFD Groundwater body have been considered in the design and assessment process. Appendix 13.2 (Hydrogeological Risk Assessment) of the ES Document reference 6.3) includes a groundwater impact assessment in relation to the proposed drainage scheme. A Controlled Waters Risk Assessment relating to existing contamination has been undertaken and is reported in the Ground Investigation Report (Document Reference 7.11). Appendix 13.1 (Drainage Strategy Report) of the ES (Document Reference 6.3) contains details of appropriate pollution prevention measures to ensure the risk to groundwater pollution is low.
	Environment Agency (Late Response)		In regard to flood risk, the majority of works are to take place in Flood Zone 1 areas. It seems that only minor works are taking place within the section of road that is located in Flood Zone 3 (i.e. the section of road crossing the River Itchen). Therefore, flood risk is of lesser concern to us at this stage. This may change if later design stages determine that more extensive work will be required within Flood Zone 3.	Noted. Any further works identified within Flood Zone 3 will be supported by a FRAP(s).
	Environment Agency (Late Response)		Our more detailed comments are split into the following three categories based on matters of most concern to us: 1. Protection of groundwater 2. Ecology/biodiversity – River Itchen 3. Flood risk	Comments addressed separately below.
	onment Ag onse)	ency (Late	It is our understanding that the applicant proposes to change various aspects of the project including improvements/construction of new bridge structures and reconfiguration of roundabouts and highways.	Noted – no response required
	Environment Agency (Late Response)		The proposed operational area rests upon the Seaford, Lewes Nodular, Holywell Nodular and Zig Zag Chalk formations, designated as Principal Aquifers by us. These formations are overlain by Head and Alluvial deposits in some locations, designated as unproductive and Secondary A aquifers respectively by us.	Noted – no response required. This baseline information is stated in the various relevant technical assessments and Chapter 13 (Road Drainage and the Water Environment) of the ES (Document Reference 6.1).
	Environment Agency (Late Response)		The northeast operational area intersects Source Protection Zones 1 and 2 for the Easton public groundwater supply, as well as numerous smaller, private abstraction nearby.	Noted – no response required. This baseline information is stated in the various relevant technical assessments and Chapter 13 (Road Drainage and the Water Environment) of the ES (Document Reference 6.1).
	Environment Agency (Late Response)		Hydrogeological Risk Assessment Given the sensitivity of the groundwater environment beneath the IAB, we would expect the Applicant to produce a Hydrogeological Risk Assessment for the development. This assessment would focus on groundwater and receptors that are dependent upon groundwater and potential risks of contamination (land contamination, drainage, piling and excavation).	A Controlled Waters Risk Assessment relating to existing contamination has been undertaken and is reported in the Ground Investigation Report (Document Reference 7.11). This has been used to inform the impact assessment in Chapter 9 (Geology and Soils) of the ES (Document Reference 6.1). Separately, Appendix 13.3 (Hydrogeological Risk Assessment) of the ES (Document Reference 6.3), including a groundwater



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		Other points		impact assessment in relation to the proposed drainage scheme, has been undertaken. The findings of the Hydrogeological Risk Assessment have been used to inform the impacts Chapter 9 (Geology and Soils) of the ES (Document Reference 6.1) and Chapter 13 (Road Drainage and Water Environment) of the ES (Document Reference 6.1).
	onment Ago onse)	ency (Late	We note that the Applicant has installed monitoring wells around the proposed site to obtain groundwater levels and groundwater quality. The data sets obtained by these wells could provide the basis for a hydrogeological risk assessment.	See response above.
	Environment Agency (Late Response)		Land contamination With the increased scope for excavation and penetrative works, there is a risk of the mobilisation of potentially contaminated material. There is a risk that unknown contamination could be mobilised into shallow groundwater. Groundwater may then act as a potential pathway to sensitive receptors, in this case ecological receptors or public water supply boreholes.	The Ground Investigation Report (Document Reference 7.11), has identified a low risk of significant site wide contamination that could be mobilised during any excavation and penetrative works. The Environmental Management Plan (EMP) would include measures for dealing with unexpected contamination and a FWRA would be undertaken. A first iteration Environmental Management Plan (fiEMP) (Document Reference 7.3) has been included as part of the submission for Development Consent. The requirement for a second iteration Environmental Management Plan (siEMP) would be secured as part of any DCO Consent. This would include measures (including the requirement for a watching brief if necessary) for dealing with any unexpected contamination.
	onment Ago onse)	ency (Late	In addition to the findings of the phase 2 site investigation. We would expect an extensive watching brief around any significant earthworks to ascertain contaminated material and initiate remediation and verification of the site prior to any intrusive works occurring.	The DCO seeks to secure the requirement for a second iteration Environmental Management Plan (siEMP) which would include the requirement for a watching brief for unexpected contamination and if necessary, for providing appropriate measures to deal with any contamination such as mitigation/remediation.
Enviro Resp	Environment Agency (Late Response)		Drainage We support the proposal to assess the use of SuDS in the drainage strategy and hope to see further information within the ES.	The proposed drainage strategy is detailed in Appendix 13.1. This contains full details of the proposed SuDS measures and the appropriate pollution control measures. The Hydrogeological Risk Assessment (Appendix 13.2 of the ES (Document Reference 6.3)) includes a groundwater impact assessment in relation to the proposed drainage scheme.
	onment Ago onse)	ency (Late	Whilst we would not object to the use of SuDs at this site, we expect the Applicant to incorporate a suitable level of pollution prevention measures into the drainage design to ensure that groundwater and drinking water supplies are protected.	See response above.
	Environment Agency (Late Response)		With regards to clean roof water, we have no objection to this being discharged to ground. However, surface water drainage from car parking areas and roads has the potential to contain pollutants and hazardous substances. We would expect a risk assessment to be carried out to determine the level of treatment required prior to the water from these areas being discharged to ground.	Appendix 13.1 (Drainage Strategy Report) of the ES (Document Reference 6.3) contains full details of the proposed SuDS measures and the appropriate pollution control measures. Appendix 13.2 (Hydrogeological Risk Assessment) of the ES (Document Reference 6.3) includes a groundwater impact assessment in relation to the proposed drainage scheme.



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	Environment Agency (Late Response)		In Section 14.2.24, the Applicant discusses the travel times in groundwater based upon Source Protection Zone designations. We would remind the Applicant that groundwater travel times in Chalk can be a lot faster than conventional flow rates and that any contamination released in a Source Protection Zone 2 could travel to a sensitive receptor, through groundwater in	A Controlled Waters Risk Assessment contained within the Ground Investigation Report (Document Reference 7.11) and Appendix 13.2 (Hydrogeological Risk Assessment) of the ES (Document Reference 6.3), has been undertaken and used to inform potential impacts in Chapter 9 (Geology and Soils) of the ES (Document Reference 6.1).
			much shorter period than the prescribed 400 days.	A Stage 1 Tier 2 Generic Quantitative Risk Assessment for controlled waters has been carried out. This has not identified any significant sources of existing potential contamination and therefore a Low risk to controlled waters. On this basis the requirement for a Tier 3 risk assessment, including modelling of specific aquifer properties has not been identified at the current time.
	Environment Agency (Late Response)		Piling and excavation It is assumed that with the changes in the proposal that there will be the need for piled foundations and excavations to support the new, proposed structures and reconfigurations. As explained in the comments on land contamination above, these works can liberate contaminated material into groundwater,	A Controlled Waters Risk Assessment contained within the Ground Investigation Report (Document Reference 7.11) and Appendix 13.2 (Hydrogeological Risk Assessment) of the ES (Document Reference 6.3), has been undertaken and used to inform potential impacts in Chapter 9 (Geology and Soils) of the ES (Document Reference 6.1).
			putting sensitive receptors at risk.	The requirement for a design specific Foundation Works Risk Assessment (FWRA) is included within the fiEMP (Document Reference 7.3) . This would provide an assessment of the risks relevant to the specific foundation solutions proposed (not confirmed at this stage), and any appropriate mitigation measures required, and would be agreed with the relevant statutory bodies.
Environment Agency (Late Response)		ency (Late	Additionally, they also increase the risk of turbidity. Piling operations and excavations can induce sediment loads into groundwater, this sediment then moves with groundwater flow and had the potential to carry harmful bacteria and can result in the shutdown of a public water supply.	As above, the requirement for a design specific Foundation Works Risk Assessment (FWRA) is included within the fiEMP (Document Reference 7.3). This would provide an assessment of the risks relevant to the specific foundation solutions proposed (not confirmed at this stage), and any appropriate mitigation measures required to ensure sediment loads are not introduced into groundwater, and would be agreed with the relevant statutory bodies.
Environment Agency (Late Response)		ency (Late	As such we would expect the Applicant to produce a Foundation Risk Assessment, focusing on the potential hazards of piling/excavation activities on local groundwater, and the methods that might mitigate the risk of those hazards having a detrimental impact.	See comment above.



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Enviro	onment Age onse)	ency (Late	The scoping report suggests that temporary de-watering may be required in order for construction activities to take place and mentions permits may be required. For information, dewatering is generally no longer exempt from needing an abstraction licence. However there still remains a small scale dewatering exemption in place under Section 5, Part 2 of the Water Abstraction and Impounding (Exemptions) Regulations 2017. Details on this exemption can be found on the following web page: https://consult.environment-agency.gov.uk/environment-and-business/removing-previously-exempt-abstraction activities/user_uploads/dewatering-application-advice-1.pdf	Noted - the appropriate licenses and/permits would be secured as required refer to the Consents and Agreements Position Statement (Document Reference 3.3).
Enviro	onment Age onse)	ency (Late	If the exemption cannot be complied, with then an abstraction licence will need to applied for. The licensing process can be fairly lengthy, therefore we recommend early pre-application discussions with us.	See above.
Enviro	onment Age onse)	ency (Late	An environmental permit may also be required to cover the discharge from the scheme.	See above.
Enviro	onment Age onse)	ency (Late	Additionally an abstraction licence and/or environmental permit may be required if the cuttings or other works are assessed to intercept groundwater on a longer term basis, and if more permanent passive or active groundwater management mitigation measures will be required. It is understood that groundwater levels are currently being monitored which could be used to assess groundwater levels extremes at the site (if taken over a number of years). As above, we recommend early pre-application discussions with us.	See above.
Enviro	_	nent Agency (Late 2. Ecology/biodiversity – River Itchen		The Brook Lamprey Condition Assessment report and the gov.uk website have both been reviewed and used to inform the ecological baseline within Chapter 8 (Biodiversity) of the ES (Document Reference 6.1).
Enviro Respo	onment Age onse)	ency (Late	Table 9-1 (Otter) We have previously discussed with the Applicant reports we have received about recent otter deaths reported on motorways where open central	A number of data gathering exercises for otter have been undertaken to inform the EIA process, including a desk study, and a number of field surveys within and adjacent to the Scheme.



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			reservation barriers have been replaced with closed concrete ones (M27 and M4/5). Given the close proximity of a recent report of an otter death (on the M27), we strongly recommend that there is scoped in further assessments of otter and other mammal movements in the project area, and the risk of them crossing the roads, with a view to minimising the risks of injuries and fatalities.	Measures such as otter fencing have been included in the scheme design to minimize the risk of collision with traffic – refer to Figure 2.3 (Environmental Mansterplan) of the ES (Document Reference 6.2).
Enviro Respo		gency (Late	Section 9.3 Potential impacts during construction should also include changes in surface water flows (quantity and quality) which lead to or are connected to aquatic habitats.	Potential construction phase impacts through changes in surface water flows (quantity and quality) have been assessed within Chapter 8 (Biodiversity) of the ES (Document Reference 6.1) and the HRA (Document Reference 7.5) .
	Environment Agency (Late Response)		Section 9.4 We welcome the aim of delivering biodiversity net gain, but feel this shouldn't be an aim but a requirement of the scheme to deliver against the Applicant's own commitments in their biodiversity plan, alongside the aims of national planning policy.	Appendix 8.2 (Net Gain Assessment Report) of the ES (Document Reference 6.3) presents the results of a biodiversity metric calculation which assesses the predicted habitat losses and gains, with the aim of maximising biodiversity outputs from the Scheme in accordance with National Highway's performance targets.
			planning pensy.	The design includes provision of extensive areas of new biodiverse habitats, including over 17ha of chalk grassland, a HPI and LBAP habitat.
Enviro		gency (Late	We would welcome further opportunities to discuss biodiversity net gain possibilities in the area of the project. There have been historic discussions about this aspect, with other organisations in attendance (Natural England, South Downs National Park Authority and the Hampshire & Isle of Wight Wildlife Trust), but these did not reach any conclusion as such.	Figure 2.3 (Environmental Masterplan) of the ES (Document Reference 6.2) shows the habitats provided across the scheme, which includes some of the options provided by the Environment Agency, Natural England, South Downs National Park Authority and the Hampshire and Isle of Wight Wildlife Trust.
				The design includes provision of extensive areas of new biodiverse habitats, including over 17ha of chalk grassland, a HPI and LBAP habitat.
Enviro Respo		gency (Late	Drainage designs should also ensure no likelihood of detrimental changes in quantity of surface water entering the River Itchen and associated wetland habitat, not just focus on quality of the surface water.	Appendix 13.1 (Drainage Strategy Report) of the ES (Document Reference 6.3) has been designed to ensure there is no increase in the quantity of surface water runoff to receptors as a result of the development. This is detailed in Appendix 13.1 (Drainage Strategy Report) of the ES (Document Reference 6.3).
Enviro Respo	•	gency (Late	Section 9.5.4 The ES should include changes to surface water flows as a potential for significant effect on the River Itchen SSSI/SAC and other priority habitats.	An assessment of impacts from changes in surface water flows is set out in Chapter 13 (Road Drainage and the Water Environment) of the ES (Document Reference 6.1).
Enviro	onment Aç	gency (Late	Section 9.6.10	Appendix 8.2 (Net Gain Assessment Report) of the ES (Document
Respo	onse)		We welcome the use of the Biodiversity Net Gain metric when assessing biodiversity net gains and losses and that this will be made available to consultees.	Reference 6.3) presents the results of a biodiversity metric calculation which assesses the predicted habitat losses and gains, with the aim of maximising biodiversity outputs from the Scheme in accordance with National Highway's
			If a Flood Risk Activity Permit (or other permits are required from us), then we will become a Competent Authority under the Habitat Regulations. We request, therefore, that the findings of the Habitats Regulation Assessment	performance targets.



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			(HRA) are presented to us and we are able to review the HRA at the earliest possible opportunity.		
	Environment Agency (Late Response)		In relation to Chapter 16 (entitled 'Cumulative Effects') we have the following comments: Table 16-1	Where there is potential for combined cumulative effects, these are assessed within Chapter 15 (Climate) of the ES (Document Reference 6.1) in accordance with the methodology also outlined within Chapter 15.	
			We consider that there are a number of 'Potential interrelationships between topics' that have been missed from this table. For example, the potential receptor of statutory designated sites has a potential interrelationship with soils and geology, yet this is not ticked (and yet it is for the River Itchen). Climate also has a potential interrelationship with biodiversity with regards to changes in rainfall (and therefore run-off/flooding patterns). This should be reassessed for the purposes of the cumulative effects chapter of the ES.		
		ency (Late	3. Flood Risk	Noted – should the design change to increase works in Flood Zone 3 then the Environment Agency will be consulted.	
	Response)		As set out in the introduction, we understand that relatively minor works (such as changing road markings) will be undertaken in the section of road within Flood Zone 3 (i.e. the section of the road crossing the River Itchen). Should this change during the detailed design phases, then further considerations will need to be taken account to ensure that flood risk is not increased elsewhere, and we would expect to be specifically consulted in this regard.	The Scheme has been designed so that no major works are proposed in Flood Zone 3. Temporary works are proposed in-channel for the installation/refurbishment of drainage outfalls but these are very localised and short term (i.e. approximately a week per outfall).	
	onment Ag onse)	ency (Late	We are pleased that a Flood Risk Assessment will be undertaken (Section 5.4.1 of the report), and we would recommend that the 'worst case scenario' is considered for the Flood Risk Assessment (Section 2.6.1 of the report). It should be borne in mind that Climate Change Allowances have been updated in accordance with UKCP18, and the Flood Risk Assessment is likely to need to take account of those.	The Flood Risk Assessment (Document Reference 7.4) applies appropriate climate change allowances. Agreement on climate change allowances and modelling methodology has been confirmed and approved by Environment Agency.	
			The latest information and guidance about UKCP18 can be accessed here – https://www.metoffice.gov.uk/research/collaboration/ukcp.		
			Guidance of when and how local planning authorities, developers and their agents should use climate change allowances in flood risk assessments can be found here - https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances.		
	_	ency (Late	In addition to the above, our updated flood model for the River Itchen was completed in 2019.	The updated hydraulic modelling of the River Itchen (using the 2019 EA model) and its tributaries included consideration of appropriate climate change	
,	Response)		Both new climate change allowances and the new model should be taken account of in terms of the baseline information for the Flood Risk Assessment, and we would encourage the Applicant to consult with us further in this regard.	allowance for both baseline and design. Further to our assessment, the fluvial climate change allowances were updated in July 2021. Correspondence with the Environment Agency (a copy is included in the Flood Risk Assessment (Document Reference 7.4) confirms that our assessment of H++ (+120%)	



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				gives a more conservative assessment as the new climate change allowance result in a lower value. The models did not need to be re-run.
Environment Agency (Late Response)		ency (Late	In the report, there is mention of possible works on or near the River Itchen (Sections 9.4.2 and 14.2.20). Any proposed works or structures in, under, over or within 8 metres of the river bank is likely to require a Flood Risk Activity Permit from us under the Environmental Permitting (England and Wales) Regulations 2016. Further details about Flood Risk Activity Permits can be found on the GOV.UK website using the following link - https://www.gov.uk/guidance/flood-risk-activities-environmental-permits. As construction details are developed, we would recommend early consultation with us regarding any applications for any Flood Risk Activity Permits.	Noted, FRAP requirements were discussed at a meeting with the Environment Agency on 4 October 2021. FRAP's are required for the new bridge over the River Itchen, modifications to Kingsworthy Bridge and installation of the two new drainage outfalls. A Consents and Agreement Position Statement (Document Reference 3.3) has been prepared and submitted as part of the application.
	Environment Agency (Late Response)		Final comments Pollution Prevention All precautions must be taken to avoid discharges and spills to the ground both during and after construction. Ultimately, we would expect to see a Construction Environmental Management Plan (CEMP) specifying any pollution prevention measures that will be incorporated into any works. Further details regarding pollution prevention for the long-term maintenance of the road post construction should also be included within the ES.	Essential mitigation measures are outlined in the fiEMP (Document Reference 7.3), in accordance with LD 120 Environmental management plans (Standards for Highways, 2020). As the design develops towards construction phase, mitigation would be refined and included within the siEMP, which would be secured through Requirement 3 in the DCO (Document Reference 3.1). The siEMP will be drafted in consultation with statutory bodies, and regular contact will be had with these parties through the subsequent detailed design and delivery (construction) phases.
	Environment Agency (Late Response)		Surface Water It should be noted that responsibility for surface water matters in terms of quantity and flow lies with the Lead Local Flood Authority (Hampshire County Council). We recommend that they are consulted in regard to the drainage proposals related to surface water. Our considerations in regard to surface water relate to the potential mobilisation of contaminants, which may impact the Main River and/or groundwater.	Meetings have been held with the LLFA in relation to the design of the proposed surface water strategy. The LLFA and the Environment Agency have reviewed the first draft of Appendix 13.1 (Drainage Strategy Report) of the ES (Document Reference 6.3) and further comments on the report have been taken into consideration. The Drainage Strategy Report contains full details of the proposed pollution prevention measures. The requirement for a design specific Erosion Prevention and Sediment Control Plan and Emergency Spill Response Plan is secured by the fiEMP (Document Reference 7.3) .
Histo	Historic England (Late Response)		Thank you for your letter of 23rd October 2020 consulting us about the above EIA Scoping Report. This development has the potential to have an impact upon a number of designated heritage assets. We note that that impact is likely to be primarily to the significance of those assets as contributed to by their setting.	Chapter 6 (Cultural Heritage) of the ES (Document Reference 6.1) includes a thorough assessment of the likely effects the Scheme may have on heritage assets.



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			In line with the advice in the National Planning Policy Framework (NPPF), we would expect the Environmental Statement to contain a thorough assessment of the likely effects which the proposed development might have upon those elements which contribute to the significance of these assets.	
Histor	ric England	(Late Response)	Known Heritage Assets	Noted – no response required.
			Our initial assessment shows the attached list of designated heritage assets within a 1km of the proposed development. We would draw your attention, in particular, to the following which we feel are likely to be most impacted by the proposals. We do however note that this may be subject to change once the details of the designs are released.:	
Histor	ric England	(Late Response)	Scheduled Monuments	These assets are considered within Chapter 6 (Cultural Heritage) of the ES
			The late Iron Age settlement site north of Grace's Farm (HA UID 1001825)	(Document Reference 6.1).
			The Angle Saxon cemetery in Worthy Park (HA UID 1001817)	
			The Site of St Gertrude's Chapel (HA UID 1005518)	
			Roman Road East of St Catherine's Hill (HA UID 1001798)	
			St Catherine's Hill Hillfort (HA UID 1016489)	
			The Bowl Barrow at the East of Magdalen Hill Down (HA UID 1015984)	
			Round Barrow cemetery on Magdalen Hill Down (HA UID 1016746)	
Histor	ric England	(Late Response)	Listed Buildings (Grade I and II*)	These assets are considered within Chapter 6 (Cultural Heritage) of the ES
			Grade I Church of St Mary (HA UID 1095898)	(Document Reference 6.1).
			Grade II* Worthy Park House (HA UID 1095892)	
			Grade II* Church of St Mary (HA UID 1156360)	
			Grade II* Dymoke House (HA UID 1095857)	
			Grade II* Church of St Swithin (HA UID 1350471)	
Histor	ric England	(Late Response)	Conservation Areas • Abbots Worthy	These assets are considered within Chapter 6 (Cultural Heritage) of the ES (Document Reference 6.1).



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		toscope out / Other points		
			Easton	
			Kings Worthy	
			Martyr Worthy	
Historic England (Late Response)			We would expect the Environmental Statement to consider the potential impacts on non-designated features of historic, architectural, archaeological or artistic interest. Undesignated assets can also be of national importance and make an important contribution to the character and local distinctiveness of an area and its sense of place. This information is available via the local authority Historic Environment Record (www.heritagegateway.org.uk) and relevant local authority staff.	Chapter 6 (Cultural Heritage) of the ES (Document Reference 6.1) includes an assessment of the value and baseline conditions and potential impacts upon non-designated heritage assets together with assessment of likely significant effects.
Histor	ric England	England (Late Response) We would strongly recommend that you involve the Conservation Office archaeological staff at Winchester City Council in the development of assessment. They are best placed to provide advice on the following a Local historic environment issues and priorities Ways in which the proposal can be tailored to avoid an potential adverse impacts on the historic environment The nature and design of any required mitigation measures Opportunities for securing wider benefits for the future conservation Office archaeological staff at Winchester City Council in the development of a security		
			management of heritage assets	
Histor	ric England	(Late Response)	Proposed study area There is the possibility of taller structures being constructed as part of the proposed development. These structures could have an impact on the significance of designated heritage assets as contributed to by their setting, and the surrounding landscape character. Therefore, the proposals could, as a result, affect the significance of heritage assets at some distance from this site itself. We would expect the assessment to clearly demonstrate that the extent of the proposed study area is of the appropriate size to ensure that all heritage assets likely to be affected by this development have been included and can	The study areas used in Chapter 6 (Cultural Heritage) of the ES (Document Reference 6.1) were informed by the draft ZTVs, submitted as part of the Preliminary Environment Impact Report (PEIR) (National Highways 2021), and a walkover survey. They were agreed with the relevant stakeholders and National Highways. The ZTVs (Figures 7.5 to 7.11 of the ES (Document Reference 6.2)) have been updated. These do not indicate a significant increase in visibility and therefore the extent of the study areas has been retained.
Histor	ric Fngland	(Late Response)	be properly assessed. Potential impacts	Appendix 6.1 (Detailed Cultural Heritage Baseline) of the ES (Document
		()	It is important that the assessment is designed to ensure that all impacts are fully understood including the contribution the setting makes to the significance	Reference 6.3) includes a setting assessment of designated and non- designated heritage assets considered likely to receive effects from the



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			of these assets. In this respect an analysis of the views from within the site, out of, and across the site in relation to designated heritage assets will be important.	Scheme. Impacts upon the setting of those heritage assets is reported within Chapter 6 (Cultural Heritage) of the ES (Document Reference 6.1)
Histo	ric England	I (Late Response)	Techniques such as photomontages and computer generated views analysis imagery are a useful part of this.	Figures 7.12, 7.13 and 7.14 of the ES (Document Reference 6.2) includes photomontages which have been reviewed and considered as part of the cultural heritage assessment.
Histo	ric England	ZTV studies are also proposed and we think these will be helpful in understanding setting impacts in relation to heritage assets. It will be important to have close collaboration between cultural heritage and landscape/visual impact assessment. Further guidance on setting can be found at our website (https://content.historicengland.org.uk/images-books/publications/gpa3-setting-of-heritage-assets/gpa3.pdf/).		The ZTVs (Figures 7.5 to 7.11 of the ES (Document Reference 6.2)) were used in combination with desk-based work and a site walkover to infor the assessment of impact upon the setting of heritage assets. The setting assessments in Appendix 6.1 (Detailed Cultural Heritage Baseline) of the ES (Document Reference 6.3) and the assessment of impacts as reported within Chapter 6 (Cultural Heritage) of the ES (Document Reference 6.1) follows all relevant guidance.
Histo	ric England	I (Late Response)	Consideration should also be given to undertaking a practical exercise with either a crane or balloons erected at the height of any proposed tall structures so that all parties are better able to understand the landscape impact of the proposals. We have been engaged in other major developments where this technique has been used and it greatly assisted the identification of the key issues and impacts from which the resulting EIA was able to focus its assessment.	The ZTVs provided in Figures 7.5 to 7.11 of the ES (Document Reference 6.2) and the digital visualisations provided in Figure 7.14 ((Document Reference 6.2) have been used to better understand the impact of taller elements of the Scheme. Such tools are considered sufficient to inform a robust assessment of the likely significant effects to heritage receptors.
Histo	ric England	I (Late Response)	The assessment should also take account of the potential impact which associated activities (such as construction, servicing and maintenance, and associated traffic) might have upon perceptions, understanding and appreciation of the heritage assets in the area.	Chapter 6 (Cultural Heritage) of the ES (Document Reference 6.1) assesses the construction and operation (and where relevant maintenance) impacts of the Scheme on cultural heritage assets.
Histo	ric England	l (Late Response)	Finally the assessment should also consider, where appropriate, the likelihood of alterations to drainage patterns that might lead to in situ decomposition or destruction of below ground archaeological remains and deposits and can also lead to subsidence of buildings and monuments.	Changes in water hydrology are discussed in Chapter 13 (Road Drainage and the Water Environment) of the ES (Document Reference 6.1) and changes have been considered in Chapter 6 (Cultural Heritage) of the ES (Document Reference 6.1) in respect of effects upon cultural heritage receptors.
Histo	ric England	I (Late Response)	Content of the scoping report We have the following comments to make regarding the content of the Scoping Report:	Draft version of Desk-Based Assessment supplied with the PEIR. Final version submitted in February 2022.
			7.2.1 We note that the existing Desk Based Assessment, which informed the previous scoping report, will be updated. We support this and welcome the greater focus on the impacts of the proposals to designated heritage assets and particularly, consideration of their setting.	
			We welcome the opportunity to comment on this as and when the document	



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			becomes available.	
Historic England (Late Response)			The scope of the ZTV is yet to be determined and further work will inform on the extent of this. It would be our advice that assessments of this nature should be undertaken during the winter months where existing foliage is at a minimum to ensure all possible receptors are included.	The ZTVs used in this assessment are referenced in Chapter 6 (Cultural Heritage) of the ES (Document Reference 6.1) and shown in Figures 7.5 to 7.11 of the ES (Document Reference 6.2). The details of the methodology used to create these are given in Chapter 7 (Landscape and Visual) of the ES (Document Reference 6.1). The ZTV (Figure 7.10 (ZTV of the Scheme (Gantries percentage visibility) of the ES (Document Reference 6.2) takes into account gantries. The setting assessments within Appendix 6.1 (Detailed Cultural Heritage Baseline) of the ES (Document Reference 6.3) and the potential impacts of the Scheme consider winter months.
			This assessment should also take into consideration any structures within the proposals which are of height.	
Historic England (Late Response)			Given the number of designated heritage assets within the area, we would welcome early discussions with you in order to agree the key sites and setting issues which will need to be addressed within the EIA.	Discussions with Historic England have been ongoing throughout the project. A consultation workshop was held in November 2020 with Key Heritage Stakeholders including Historic England to discuss the key sites and setting issues. Historic England was in agreement with the heritage assets considered within the PEIR. A revised list of heritage assets was discussed with Historic England in a subsequent meeting and following confirmation of the Application Boundary.
Southern Water (Late Response)		(Late Response)	SWS is the statutory sewerage undertaker for the area of the proposed development. SWS has apparatus and interests in land which is the subject of the proposed application.	Noted – no response required.
			I enclose a spreadsheet listing the SWS's assets/easements in proximity to the proposed works, including approximate grid references. You will need to obtain copies of SWS's records to ascertain the full extent of plant affected.	
Southern Water (Late Response)		(Late Response)	Please note: This is sensitive data and should not be placed on the public record. The information and data contained on these drawings are copyright to SWS and are provided as a guide to the approximate position and details of the assets listed in the documents accompanying this letter. SWS accepts no responsibility in the event of inaccuracy. The actual positions and details will need to be determined on site in all cases.	
Southern Water (Late Response)		(Late Response)	Appropriate protective provisions will be required to ensure the protection of SWS's assets and ensure that necessary provisions are in place to ensure that the apparatus can be maintained in perpetuity. Without such provisions the proposed application will have an unacceptable impact on SWS's assets.	Protective provisions have been discussed with Southern Water as part of the drafting of the DCO (Document Reference 3.1).
Southern Water (Late Response)		(Late Response)	We look forward to hearing from you in due course, ideally to agree protective provisions in advance of the submission of your application for a Compulsory Purchase Order. Correspondence relating to this response should be sent to the address shown in the footer of this document.	Noted – no response required.