

A1 in Northumberland: Morpeth to Ellingham

Scheme Number: TR010041

6.1 Environmental Statement - Appendix 4.5 DMRB Sensitivity Test

APFP Regulation 5(2)(a)

Planning Act 2008

Infrastructure Planning (Applications: Prescribed
Forms and Procedure) Regulations 2009

June 2020

Infrastructure Planning

Planning Act 2008

**The Infrastructure Planning
(Applications: Prescribed Forms and
Procedure) Regulations 2009**

**The A1 in Northumberland: Morpeth to Ellingham
Development Consent Order 20[xx]**

Environmental Statement

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1 DMRB SENSITIVITY TEST

- 1.1.1. Some Design Manual for Roads and Bridges (DMRB) was updated in 2019 and 2020, which included the withdrawal of associated Interim Advice Notes (IANs). At that time the Environmental Impact Assessment (EIA) for the Scheme was largely complete. **Tables 1 to 5** below set out the differences between the former DMRB guidance and updated DMRB guidance, and what implications the updated DMRB guidance would have on EIA reported in the Environmental Statement (ES) (refer to **paragraph 5.1.3** for application document references).
- 1.1.2. **Tables 1 to 5** focus on DMRB guidance and IANs relevant to the EIA and environmental design for the Scheme. Therefore, the tables do not cover DMRB guidance and IANs relevant to the Scheme design, unless it is relevant to the environmental design, and delivery of the Scheme. The design of the Scheme in relation to the updated DMRB would be considered at the detailed design stage. However, there would be no implications to the environmental assessment because the assessment focuses on the Scheme that forms part of the Development Consent Order application. In addition, **Tables 1 to 5** do not detail DMRB guidance or IANs which have not been superseded.
- 1.1.3. **Tables 1 to 3** should be read in conjunction with the Technical Chapters within the following volumes of the ES:
- a. Table 1: Volume 1** of this ES (**Application Document Reference: TR010041/APP/6.1**)
 - b. Table 2: Volume 2** of this ES (**Application Document Reference: TR010041/APP/6.2**) and **Volume 3** of this ES (**Application Document Reference: TR010041/APP/6.3**)
 - c. Table 3: Volume 4** of this ES (**Application Document Reference: TR010041/APP/6.4**)
- 1.1.4. **Table 4** should be read in conjunction with the **Habitat Regulations Assessment (Application Document Reference: TR010041/APP/6.14)**
- 1.1.5. **Table 5** should be read in conjunction with the **Outline Construction Environmental Management Plan (Application Document Reference: TR010041/APP/7.3)**.
- 1.1.6. Where it was identified that the updated DMRB guidance could change the outcomes of the assessment presented in the ES, further assessment work has been undertaken. This additional work is presented as an appendix to the relevant Technical Chapter in each case. As such, DMRB sensitivity test appendices have been prepared for the following environmental topics:
- a. Air Quality**
 - b. Noise and Vibration**
 - c. Biodiversity**
 - d. Road Drainage and the Water Environment**
 - e. Geology and Soils**

Table 1 – Design Manual for Roads and Bridges (DMRB) Sensitivity Test for Introductory Chapters (refer to Volume 1 of this ES (Application Document Reference: TR010041/APP/6.1))

ES Chapter	DMRB (and IANs) Referenced in the ES Chapter	Updated DMRB Guidance	How the Guidance has Changed	Implications for the Assessment
Chapter 1: Introduction	Ref. 1.10 Design Manual for Roads and Bridges (DMRB)	Ref. 1.10 has been superseded by updated DMRB guidance. The full suite of updated DMRB guidance is available at: https://www.standardsforhighways.co.uk/dmrb/	Updates to the DMRB guidance relevant to each chapter of the ES and other relevant documents forming part of the Application are set out in Tables 1 to 5 of this document. While the superseded guidance is referred to within Chapter 1: Introduction, Volume 1 of this ES (Application Document Reference: TR010041/APP/6.1), the updated guidance does not affect the content of this chapter.	N/A
	Ref. 1.11 Interim Advice Notes (IAN)	Ref. 1.11 has been superseded by updated DMRB guidance. The full suite of updated DMRB guidance is available at: https://www.standardsforhighways.co.uk/dmrb/	Updates to the DMRB guidance relevant to each chapter of the ES and other relevant documents forming part of the Application are set out in Tables 1 to 5 of this document. While the superseded guidance is referred to within Chapter 1: Introduction, Volume 1 of this ES (Application Document Reference: TR010041/APP/6.1), the updated guidance does not affect the content of this chapter.	N/A
Chapter 2: The Scheme	N/A	N/A	Updates to the DMRB guidance relevant to each chapter of the ES and other relevant documents forming part of the Application are set out in Tables 1 to 5 of this document. While the superseded guidance is referred to within Chapter 2: The Scheme, Volume 1 of this ES (Application Document Reference: TR010041/APP/6.1), the updated guidance does not affect the content of this chapter.	N/A
Chapter 3: Assessment of Alternatives	N/A	N/A	Updates to the DMRB guidance relevant to each chapter of the ES and other relevant documents forming part of the Application are set out in Tables 1 to 5 of this document. The updated guidance does not affect Chapter 3: Assessment of Alternatives, Volume 1 of this ES (Application Document Reference: TR010041/APP/6.1).	N/A

ES Chapter	DMRB (and IANs) Referenced in the ES Chapter	Updated DMRB Guidance	How the Guidance has Changed	Implications for the Assessment
Chapter 4: Environmental Assessment Methodology	Ref. 4.1 DMRB Volume 11, Section 3.	Ref. 4.1 has been superseded by updated DMRB guidance. The full suite of updated DMRB guidance is available at: https://www.standardsforhighways.co.uk/dmr/	Updates to the DMRB guidance relevant to each chapter of the ES and other relevant documents forming part of the Application are set out in Tables 1 to 5 of this document.	N/A
	Ref. 4.4 DMRB Volume 11, IAN 125/15	Ref. 4.4 has been superseded by updated DMRB guidance. Available at: https://www.standardsforhighways.co.uk/dmr/	LA 104 reflects the EIA Directive 2014, which was transposed into UK law by the EIA Regulations 2017. The guidance refers to the consideration of environmental factors set out in the EIA Directive 2014, as well as the consideration of heat and radiation and major accidents and disasters.	The Scheme Scoping Reports (for Part A: Morpeth to Felton (Part A) (Application Document Reference: TR010041/APP/6.10) and for Part B: Alnwick to Ellingham (Part B) (Application Document Reference: TR010041/APP/6.11)) was prepared in line with the EIA Regulations 2017, therefore the assessment is compliant with LA 104. No change is therefore required to the assessment methodology.
	Ref. 4.8 DMRB Volume 11, Section 2, Part 5.	Ref. 4.8 has been superseded by DMRB, LA 104 Environmental assessment and monitoring. Available at: https://www.standardsforhighways.co.uk/dmr/	LA 104 reflects the EIA Directive 2014, which was enacted into UK law by the EIA Regulations 2017. The guidance refers to the consideration of environmental factors set out in the EIA Directive 2014, as well as the consideration of heat and radiation and major accidents and disasters.	The Scheme Scoping Reports (for Part A (Application Document Reference: TR010041/APP/6.10) and for Part B (Application Document Reference: TR010041/APP/6.11)) was prepared in line with the EIA Regulations 2017, therefore the assessment is compliant with LA 104. No change is therefore required to the assessment methodology.

Table 2 - DMRB Sensitivity Test for Part A (refer to Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2)) and Part B (refer to Volume 3 of this ES (Application Document Reference: TR010041/APP/6.3))

ES Chapter	DMRB (and IANs) Referenced in the ES Chapter	Updated DMRB Guidance	How the Guidance has Changed	Implications for the Assessment
Chapter 5: Air Quality	Part A: Ref 5.15 DMRB Volume 11 Environmental Assessment, Section 3 Environmental	Part A Ref. 5.15, Part A Ref. 5.20, Part A Ref. 5.22, Part A Ref. 5.23, Part A Ref. 5.24, Part B Ref. 5.15, Part B Ref. 5.20, Part B Ref. 5.22, Part B Ref. 5.23 and Part B Ref. 5.24 have been superseded by DMRB LA 105 Air	The changes updates and refine the air quality assessment methodology that was previously specified in HA 207/07 and associated IANs. The assessment of regional emissions of	The potential implications of the numbered changes to guidance are considered below. 1.) This is unlikely to change the ARN. As with substantial speed changes, changes in speed band would be most likely where there is a substantial change in traffic (1000 Average Annual

ES Chapter	DMRB (and IANs) Referenced in the ES Chapter	Updated DMRB Guidance	How the Guidance has Changed	Implications for the Assessment
	<p>Assessment Techniques. HA 207/07. Air Quality.</p> <p>Ref. 5.20. Interim Advice Note (IAN) 185/15. Updated traffic, air quality and noise advice on the assessment of links speeds and generation of vehicle data into 'speed-bands' for users of DMRB Volume 11, Section 3, Part 1 Air Quality.</p> <p>Ref. 5.22. IAN 170/12v3. Updated air quality advice on the assessment of future NO_x and NO₂ projections for users of DMRB Volume 11, Section 3, Part 1 Air Quality.</p> <p>Ref. 5.23. IAN 174/13. Updated advice for evaluating significant local air quality effects for users of DMRB Volume 11, Section 3, Part 1 Air Quality.</p> <p>Ref. 5.24. IAN 175/13. Updated air quality advice on risk assessment related to compliance with the ES Directive on ambient air quality and on the project of Scheme air quality action plans for user of DMRB Volume 11, Section 3, Part 1 Air Quality.</p> <p>Part B:</p> <p>Ref 5.15 DMRB Volume 11 Environmental Assessment, Section 3 Environmental Assessment Techniques. HA 207/07. Air Quality.</p>	<p>Quality Revision 0. Available at: https://www.standardsforhighways.co.uk/dmr/</p> <p>Replacing HA 207/07, IAN 170/12, IAN 174/13, IAN 175/13, part of IAN 185/15</p>	<p>NO_x, PM₁₀ and CO₂ are no longer included within the scope. The implications include:</p> <ol style="list-style-type: none"> 1.) Change to screening criteria to define the Affected Road Network (ARN): separate criteria concerning average and peak speed changes replaced with speed band change criterion. 2.) Clearer guidance on determining if simple or detailed assessment is required. 3.) Clearer guidance on simple and detailed assessment elements. 4.) Inclusion of gardens and playing fields as sensitive receptors where there is a risk of short-term air quality thresholds being exceeded. 5.) States that PM₁₀ is only modelled in the base year unless this base year modelling indicates a potential risk of future exceedance with the project. Further, no explicit modelling of PM_{2.5} is required because this can be inferred from the PM₁₀ results (since PM_{2.5} is a fraction of PM₁₀). 6.) Improved guidance on qualifying features for EU limit value compliance risk assessment. 7.) Overhaul of method for assessing impacts at sensitive ecological receptors which are now referred to as 'designated habitats' (previously as 'designated sites'). More habitat types require consideration than before including locally designated habitats (Local Nature Reserves and Local Wildlife Sites), Nature Improvement Areas and veteran trees. 	<p>Daily Traffic (AADT) or more). Given the low compliance risk posed by the Part A and Part B, no update has been deemed necessary.</p> <ol style="list-style-type: none"> 2.) A detailed assessment would be required under the updated guidance. As a detailed assessment has already been undertaken, there would be no change to the assessment level for Part A and Part B. 3.) The elements of the detailed assessment that would be required under the updated guidance are the same as the original assessment for Part A and Part B. Therefore, this does not affect the assessment. 4.) Given the low compliance risk posed by Part A and Part B, no update was considered necessary. Predicted pollutant concentrations are so low that the risk of exceedance of the short-term air quality thresholds is negligible. 5.) As part of the assessment, PM₁₀ has been modelled and PM_{2.5} considered for all scenarios. Therefore, the assessment presented in Part A Chapter 5: Air Quality, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) and Part B Chapter 5: Air Quality, Volume 3 of this ES (Application Document Reference: TR010041/APP/6.3) is more detailed than what is required by the updated guidance. Therefore, the updated guidance does not affect the assessment undertaken for Part A and Part B. 6.) Part A: The updated DMRB guidance requires a more detailed assessment. Existing modelled NO₂ concentrations for Part A are low and the predicted modelled impacts would not result in an exceedance of EU Limit Value. Therefore, there would be no risk to reported date of compliance and the conclusion of the assessment would remain the same. <p>Part B: The updated DMRB guidance does not change the qualifying features for the compliance risk assessment, therefore the assessment for Part B would remain the same.</p> <ol style="list-style-type: none"> 7.) Part A: Locally designated habitats were included in the original assessment undertaken for Part A. However, impacts at Nature Improvement Areas and veteran trees were not considered. The potential changes in nitrogen deposition for these additional receptors have been considered in the DMRB sensitivity test as detailed in Appendix 5.8: Air Quality DMRB Sensitivity Test, Volume 7 of this ES (Application Document Reference: TR010041/APP/6.7). The analysis identified no

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	<p>Ref. 5.22 IAN 170/12. Updated air quality advice on the assessment of future NO_x and NO₂ projections for users of DMRB Volume 11, Section 3, Part 1 Air Quality.</p> <p>Ref. 5.23 IAN 174/13. Updated advice for evaluating significant local air quality effects for users of DMRB Volume 11, Section 3, Part 1 Air Quality.</p> <p>Ref. 5.24 IAN 175/13. Updated air quality advice on risk assessment related to compliance with the ES Directive on ambient air quality and on the project of Scheme air quality action plans for users of DMRB Volume 11, Section 3, Part 1 Air Quality.</p> <p>Ref. 5.20 IAN 185/15. Updated traffic, air quality and noise advice on the assessment of links speeds and generation of vehicle data into 'speed-bands' for users of DMRB Volume 11, Section 3, Part 1 Air Quality.</p>		<p>8.) Refined guidance on speed band emission factors for motorway links.</p> <p>9.) Updated guidance on assessment of impacts at designated habitats, making the process somewhat simpler. Applicants are no longer required to consider change in annual mean NO_x in relation to the critical level. The assessment focuses on change in nitrogen deposition with new deposition rates specified for grassland and forest type habitats.</p> <p>10.) Clearer guidance on gap analysis.</p> <p>11.) Refined guidance on construction dust impacts.</p> <p>12.) Clearer guidance on construction traffic impacts.</p> <p>13.) Clearer guidance on determining significance.</p> <p>14.) Updated guidance on mitigation.</p> <p>15.) Updated guidance on reporting.</p>	<p>change to the assessment of the significance of effects. Refer to the biodiversity section below for the changes to the conclusions of the biodiversity assessment.</p> <p>Part B: Previously there were no designated sites within 200 m of the ARN for Part B, with the new guidance four veteran trees are within 200 m of ARN. The potential changes in nitrogen deposition for these additional receptors have been considered in the DMRB sensitivity test as detailed in Appendix 5.7: Air Quality DMRB Sensitivity Test, Volume 8 of this ES (Application Document Reference: TR010041/APP/6.8). The analysis identified no change to the assessment of significant of effects. Refer to the biodiversity section below for the changes to the conclusions of the biodiversity assessment.</p> <p>8.) There are no motorway links in the air quality model for Part A and Part B and therefore this does not affect the assessment undertaken.</p> <p>9.) Part A: The potential changes in the assessment of nitrogen deposition on designated habitats for Part A have been considered in the DMRB sensitivity test as detailed in Appendix 5.8: Air Quality DMRB Sensitivity Test, Volume 7 of this ES (Application Document Reference: TR010041/APP/6.7). The analysis identified no change to the assessment of the significance of effects. Refer to the biodiversity section below for the changes to the conclusions of the biodiversity assessment.</p> <p>Part B: The potential changes in the assessment of nitrogen deposition on designated sites for Part B have been considered in the DMRB sensitivity test as detailed in Appendix 5.7: Air Quality DMRB Sensitivity Test, Volume 8 of this ES (Application Document Reference: TR010041/APP/6.8). The analysis identified no change to the assessment of significant of effects. Refer to the biodiversity section below for the changes to the conclusions of the biodiversity assessment.</p> <p>10.) The updated guidance provides clarity on the assessment approach that should be undertaken. However, the original assessment for Part A and Part B is compliant with this updated guidance, meaning the original assessment would not be affected.</p> <p>11.) The updated guidance provides clarity on the assessment approach that should be undertaken. However, the original assessment for Part A and Part B is compliant with this updated</p>

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				<p>guidance, meaning the original assessment would not be affected.</p> <p>12.) The updated guidance provides clarity on the assessment approach that should be undertaken. However, the original assessment for Part A and Part B is compliant with this updated guidance, meaning the original assessment would not be affected.</p> <p>13.) The updated guidance provides clarity on the assessment approach that should be undertaken. However, the original assessment for Part A and Part B is compliant with this updated guidance, meaning the original assessment would not be affected.</p> <p>14.) The updated guidance provides clarity on the assessment approach that should be undertaken. However, the original assessment for Part A and Part B is compliant with this updated guidance, meaning the original assessment would not be affected.</p> <p>15.) The updated guidance provides clarity on the assessment approach that should be undertaken. However, the original assessment is compliant with this updated guidance for Part A and Part B, meaning the original assessment would not be affected.</p>
Chapter 6: Noise and Vibration	<p>Part A: Ref. 6.20 DMRB, Volume 11, Section 3, Part 7, HD 213/11 revision 1. Noise and Vibration. Ref. 6.22 IAN 185/15 Updated traffic, air quality and noise advice on the assessment of link speeds and generation of vehicle data into 'speed-bands' for users of DMRB Volume 11, Section 3, Part 1 'Air Quality and Volume 11, Section 3, Part 7 Noise.</p> <p>Part B:</p>	<p>Part A Ref. 6.20, Part A Ref. 6.22, Part B Ref. 6.20 and Part B Ref. 6.22 have been superseded by LA 111 Noise and Vibration. Available at: https://www.standardsforhighways.co.uk/dmr/</p>	<p>The key changes for noise and vibration in LA 111 are:</p> <ol style="list-style-type: none"> 1.) Traffic speeds - LA 111 removes the requirement for speed banding. This has associated implications on road surface corrections. 2.) Study Area - LA 111 provides an update to the guidance for the derivation of the operational Study Area. 3.) Operational Vibration - LA 111 scopes out the assessment of operational vibration where within HD 213/11 it was scoped in. The requirement and methodology for calculating airborne vibration nuisance is not present in LA 111. This was previously included within HD 213/11. 	<p>The potential implications of the numbered changes to guidance are considered below.</p> <ol style="list-style-type: none"> 1.) Traffic speeds – For the sensitivity test for Part A and Part B, the speeds and road surface corrections were adjusted in the noise model to align with LA 111. For Part A, refer to Chapter 6: Noise and Vibration, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) and Appendix 6.10: Noise and Vibration DMRB Sensitivity Test, Volume 7 of this ES (Application Document Reference: TR010041/APP/6.7) for further details. For Part B, refer to Chapter 6: Noise and Vibration, Volume 3 of this ES (Application Document Reference: TR010041/APP/6.3) and Appendix 6.10: Noise and Vibration DMRB Sensitivity Test, Volume 8 of this ES (Application Document Reference: TR010041/APP/6.8) for further details. 2.) Study Area - It is expected that the guidance contained within LA 111 would lead to a reduced Study Area to that adopted using HD 213/11 if applied to Part A and Part B. However, the

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	<p>Ref. 6.20 DMRB, Volume 11, Section 3, Part 7, HD 213/11 revision 1. Noise and Vibration.</p> <p>Ref. 6.22 IAN 185/15 Updated traffic, air quality and noise advice on the assessment of link speeds and generation of vehicle data into 'speed-bands' for users of DMRB Volume 11, Section 3, Part 1 'Air Quality and Volume 11, Section 3, Part 7 Noise.</p>		<p>4.) Noise nuisance - The requirement and methodology for calculating the operational noise nuisance from the project is not present in LA 111. This was previously included within HD 213/11.</p> <p>5.) Significance of effects - Where a building is predicted to experience different changes in noise level on different facades, LA 111 advises that the greatest magnitude of change in noise should be reported. HD 213/11 advised that the least beneficial change in noise level should be reported. LA 111 requires that, when determining significance of effect, the noise level change on all property facades are to be considered rather than just the greatest magnitude of change. LA 111 sets out more definitively how to determine if an impact gives rise to a significant effect, whereby the magnitude of the short-term noise level change is considered in combination with a number of contextual factors.</p> <p>6.) Night-time noise levels - HD 213/11 previously included a 55 dB L_{night} cut-off threshold for receptors during the night-time. This is not included in LA 111.</p> <p>7.) Other Sensitive Receptors - LA 111 introduces consideration of night-time short-term noise changes for dwellings and other sensitive receptors. HD 213/11 only considered this in the long-term for dwellings. LA 111 now also includes other sensitive receptors in the long term.</p>	<p>sensitivity test has considered the original Study Area as a reasonable worst-case scenario.</p> <p>3.) Operational Vibration - As an assessment of operational vibration is scoped out of the assessment methodology in LA 111, and no operational vibration significant effects were predicted for Part A and Part B, this requires no further consideration.</p> <p>4.) Noise nuisance - As the assessment of noise nuisance is no longer required, and no significant effects were predicted for Part A and Part B, this requires no further consideration. The previous assessment has been retained in the ES in any case.</p> <p>5.) Significance of effect - Whilst the approach to determining significance of effects broadly follows the same approach as presented in LA 111, the new guidance in LA 111 provides some specific guidance which has been considered. It is also necessary that the greatest magnitude of change is reported in place of the least beneficial change.</p> <p>Part A: When applying the updated guidance, there would be 11 additional significant beneficial noise effects on dwellings. There would also be the potential for one additional significant adverse effect at Northgate Farm if the noise barrier cannot be built at this location, however, it is likely that this property would be eligible for compensation under the Noise Insulation Regulations if this is the case. Refer to Part A Chapter 6: Noise and Vibration, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) and Appendix 6.10: Noise and Vibration DMRB Sensitivity Test, Volume 7 of this ES (Application Document Reference: TR010041/APP/6.7) for further details.</p> <p>Part B: The significance of effects for Part B using LA 111 has been considered and there would be no additional significant effects. However, one significant effect would increase from Moderate beneficial to Major beneficial. Refer to Part B Chapter 6: Noise and Vibration, Volume 3 of this ES (Application Document Reference: TR010041/APP/6.3) and Appendix 6.10: Noise and Vibration DMRB Sensitivity Test, Volume 8 of this ES (Application Document Reference: TR010041/APP/6.8) for further details.</p> <p>6.) Night-time – The results of the assessment of significance applicable to the daytime $LA_{10,18h}$ is also expected to be reflective of the night-time assessment for Part A and Part B. Consequently, including night-time results below the 55 dB L_{night} cut-off threshold should not alter the assessment of significant</p>

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				<p>effects and is unlikely to necessitate the consideration of additional mitigation.</p> <p>7.) Other Sensitive Receptors - Given that the results of the assessment of significance applicable to the daytime LA_{10,18h} is also reflective of the night-time results, the introduction of the additional requirements applicable to Other Sensitive Receptors is unlikely to change the conclusions of the noise and vibration assessment for Part A and Part B.</p>
Chapter 7: Landscape and Visual	<p>Part A: Ref. 7.28 IAN 135/10 Landscape and Visual Effects Assessment. Ref. 7.29 GLVIA3 which replaced (DMRB Volume 11, Section 3, Part 5), was a methodology for Highways Landscape and Visual Impact Assessment (LVIA) written in 2010, in the light of the best practice professional guidance at the time – the Guidelines for Landscape & Visual Impact Assessment Second Edition, 2002 (GLVIA2).</p> <p>Part B: Ref. 7.23 IAN 135/10 Landscape and Visual Effects Assessment. Ref. 7.24, which replaced (DMRB Vol 11, Section 3, Part 5), was a methodology for Highways Landscape and Visual Impact Assessment (LVIA) written in 2010, in the light of the best practice professional guidance at the time – the Guidelines for Landscape & Visual Impact Assessment</p>	<p>Part A Ref. 7.28, Part A Ref. 7.29, Part B Ref. 7.23 and Part B Ref. 7.24 have been superseded by LA 107 Landscape and Visual Effects. Available at: https://www.standardsforhighways.co.uk/dmr/</p> <p>LA 107 Landscape and visual effects, published in September 2019, is a rewrite to bring DMRB into line with the third edition of the guidance GLVIA3, 2013. It also brings the DMRB guidance into line with the EIA Regulations developed since the publication of Directive 2011/92/EU amended by 2014/52/EU.</p>	<p>IAN135/10 was the methodology for Highways LVIA written in 2010 in light of the best practice professional guidance at the time GLVIA2.</p> <p>LA 107 has been developed from IAN135/10 to bring DMRB closely in line with the third edition of the guidance GLVIA3, published in 2013. It also brings the DMRB guidance in line with the EIA Regulations developed since the publication of Directive 2011/92/EU amended by 2014/52/EU.</p> <p>Guidance issued by the Landscape Institute ahead of publication of GLVIA3 advised that, in general terms the approach and methodologies are the same, with the main difference being that GLVIA3 places greater emphasis on professional judgement and less emphasis on a formulaic approach. It also goes into more detail and covers cumulative assessment more thoroughly. This change is reflected in LA 107, except in so far as the detailed descriptors for levels of landscape and visual sensitivity and magnitude given in LA 107 conflict with the GLVIA3 emphasis on professional judgement.</p> <p>The criteria for sensitivity and magnitude used in LA 107 and the categories of significance align with</p>	<p>There are no key differences in the assessment for landscape character for Part A and Part B. It is unlikely that any different conclusions would be drawn about the significance of landscape effects.</p> <p>The implications of the key differences for visual amenity are as follows:</p> <p>The Study Area does not include any receptors that are likely to be of very high sensitivity (i.e. major tourist attractions, very important national/international landscapes and cultural/historical sites and for receptors engaged in specific activities for enjoyment of dark skies). Therefore, the addition of the very high sensitivity rating does not apply to Part A and Part B.</p> <p>1.) A strict interpretation of LA 107 might result in a lower sensitivity being found for individual scattered residential receptors and small settlements, and lead to a lower level of significance of visual effect. The assigned level of sensitivity under the IAN 135/10 guidance, used in the original assessment maintains a higher sensitivity rating and therefore describes the worst case scenario. On balance, this is unlikely to change the findings of the overall assessment for Part A and Part B.</p> <p>The implications of the differences in relation to the assessment scenarios is set out below:</p> <p>1.) The original assessment has been carried out in accordance with IAN 135/10, therefore the scenarios identified in LA 107 have also been assessed. The night time assessment has been scoped in for Part A (scoped out for Part B), therefore the current assessment is in accordance with the updated LA 107 guidance. There are no implications for the current assessment for Part A and Part B in applying the updated LA 107 guidance.</p>

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	<p>Second Edition, 2002 (GLVIA2).</p>		<p>LA 104, albeit using more subject-specific descriptors. The criteria in LA 107 has been developed from those used in IAN 135/10. However, the descriptors of the level of visual sensitivity given in LA 107 differ from those in IAN 135/10.</p> <p>The key differences are that LA 107:</p> <ol style="list-style-type: none"> 1.) Adds a new level of very high sensitivity specifically related to views from and of major tourist attractions, very important national/international landscapes and cultural/historical sites and for receptors engaged in specific activities for enjoyment of dark skies. 2.) Removes consideration of individual residential receptors and replaces it with “residential areas” and, in doing so might reduce the level of sensitivity to be assigned to ‘less populated residential areas’ (in LA 107 the sensitivity would be moderate, where in IAN135/10 all residential receptors were deemed to be of high sensitivity). This reduction in the level of sensitivity could be assigned to less populated areas based on professional judgement, as there are no specific thresholds for the definition of dense or less populated residential areas. <p>The description of the assessment scenarios although set out differently is broadly comparable as detailed below:</p> <ol style="list-style-type: none"> 1.) The scenarios to be assessed as described in LA 107 are similarly outlined and required to be 	<ol style="list-style-type: none"> 2.) An assessment of the effects on landscape character areas for Part A and Part B has been carried out, therefore there are no implications for the current assessment when applying the updated LA 107 guidance. 3.) Consultation has been carried out, through statutory consultation and to inform the assessment methodology and approach for Part A and Part B. Therefore, the current assessment has delivered against the requirements described in the LA 107 guidance and there are no implications for the current assessment carried out under IAN 135/10.

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			<p>assessed in IAN 135/10, including day time and night time scenarios, in winter year of opening and summer – fifteenth year of operation to traffic, assessing the scenarios with or without the project.</p> <p>2.) An assessment of the effects on landscape character types and/or landscape character areas is required in both IAN 135/10 and LA 107.</p> <p>3.) Both LA 107 and IAN 135/10 require consultation to be carried out with statutory consultees and local stakeholders.</p>	
	<p>Part A: Ref. 7.32 DMRB Volume 10 Environmental Design and Management – Environment Objectives – Part 3 88/01 Landscape Elements</p> <p>Part B: Ref. 7.27 DMRB Volume 10 Environmental Design and Management – Environment Objectives – Part 3 88/01 Landscape Elements</p>	<p>Part A Ref. 7.32 and Part B Ref. 7.27 have been superseded by LD 117</p>	<p>LD 117 is less descriptive than Part A Ref. 7.32 and Part B Ref. 7.27. Although, the naming of the landscape elements remains unchanged.</p>	<p>There would be no implication on the landscape design for Part A and Part B.</p>
<p>Chapter 8: Cultural Heritage</p>	<p>Part A: Ref. 8.7 DMRB, Volume 11, Section 3, Part 2 (HA 208/07 – Cultural Heritage)</p> <p>Part B: Ref. 8.6 DMRB, Volume 11, Section 3, Part 2 (HA208/07 – Cultural Heritage)</p>	<p>Part A Ref. 8.7 and Part B Ref. 8.6 have been superseded by LA 106 Cultural Heritage Assessment Revision 1. Available at: https://www.standardsforhighways.co.uk/dmr/</p>	<p>LA 106 is much reduced compared to Part A Ref. 8.7 and Part B Ref. 8.6. The key changes are:</p> <p>There is no guidance for the size of Study Areas, which now need to be determined and agreed with the relevant body (i.e. Historic England and the Local Planning Authority Archaeologist) on a scheme-by-scheme basis, according to the</p>	<p>There would be limited implications for the assessment, as detailed below:</p> <p>The Study Areas for Part A and Part B were agreed with Historic England and Northumberland County Council (NCC) through the scoping exercise and therefore would still apply under the new guidance.</p> <p>1.) The only impact for Part A and Part B is in relation to Grade II listed structures which under the previous guidance would have automatically been classed as a medium value asset, but now could be either a high or medium value asset. The</p>

ES Chapter	DMRB (and IANs) Referenced in the ES Chapter	Updated DMRB Guidance	How the Guidance has Changed	Implications for the Assessment
			<p>sensitivity of the receiving environment and potential impact of Part A and Part B.</p> <p>The sensitivity (value) of heritage assets are no longer defined by its level or grade of designation and has to be assessed and justified for each heritage asset.</p> <p>1.) The guidance also now provides for assessment of cultural heritage resources, and does not define archaeological remains, buildings and historic landscapes as their own sub-topic.</p>	<p>value/sensitivity of the assets under the Part A and Part B assessment have been reviewed, in particular the Grade II Listed Buildings, to determine if they should be valued as a high value/sensitivity and not medium as originally reported. The Grade II Listed Buildings identified as being impacted are associated with agricultural activity (farmhouses and associated ancillary buildings) or are a milepost, and their value remains primarily associated with their regional associations (i.e. medium value). Any change in value, however, is not predicted to alter the assessment of significance of effect as set out below. The magnitude of change would remain the same when applying the updated DRMB guidance. The Significance Matrix Table has not changed (Table 3.8.1 - LA 104 Environmental Assessment Methodology). High value heritage assets with a minor impact would have a slight or moderate effect, and a moderate impact would result in moderate or large effect. Medium value heritage assets with a minor impact would have a slight effect, and a moderate impact a moderate effect. Therefore, even if the value of Grade II Listed Buildings were increased from medium to high value under LA 106 guidance, based on assessment of the magnitude of impact on assets from Part A and Part B, the resultant significance of effect would remain the same.</p> <p>2.) The assessment of significance for Part A and Part B would remain the same as the original assessment, however the assessment would be presented differently in the chapter.</p>
Chapter 9: Biodiversity	<p>Part A: Ref 9.21 DMRB Volume 11, Section 3, Part 4 Ecology and Nature Conservation. Ref. 9.20 IAN 130/10 Ecology and Nature Conservation: Criteria for Impact Assessment.</p> <p>Part B: Ref 9.19 DMRB Volume 11, Section 3, Part 4 Ecology and Nature Conservation.</p>	<p>Part A Ref. 9.21, Part A Ref. 9.20, Part B Ref. 9.19 and Part B Ref. 9.18 have been superseded by LA 108. Available at: https://www.standardsforhighways.co.uk/dmr/</p>	<p>This full document has been re-written to make it compliant with the new Highways England drafting rules.</p> <p>There are minor changes which result in improvement and clarity to the guidance. This includes updated level of impact criteria and expanded information to define geographical importance (previously value) classification of biodiversity resources, which aligns closer with the Chartered Institute of Ecology and Environmental Management (CIEEM) guidance. The guidance includes</p>	<p>The development of LA 108 was specifically influenced by CIEEM guidance, European directives and the UK relevant transposing regulations for the implementation of the directives. As the ecological impact assessment was conducted in accordance with CIEEM guidance and relevant legislation, there are no implications identified for/updates required to the biodiversity assessment for Part A and Part B.</p>

ES Chapter	DMRB (and IANs) Referenced in the ES Chapter	Updated DMRB Guidance	How the Guidance has Changed	Implications for the Assessment
	<p>Ref. 9.18 IAN 130/10 Ecology and Nature Conservation: Criteria for Impact Assessment.</p>		<p>reference to CIEEM Best Practice Guidance.</p>	
	<p>Part A: Ref 9.23 DMRB Volume 10 Section 4, Nature Conservation Ref. 9.55 DMRB, Volume 10 Section 4 Part 7 Nature Conservation Advice in Relation to Reptile and Roads. Ref. 9.26 IAN 116/08 Nature Conservation Advice in Relation to Bats. Ref. 9.51 DMRB, Volume 10 Environmental Design and Management, Section 4 Nature Conservation, Part 2 HA 59/92. Mitigating Against Effects on Badgers. Ref. 9.91 DMRB, Volume 10, Section 4, Part 4 Nature Conservation Advice in Relation to Otters Part B: Ref 9.21 DMRB Volume 10 Section 4, Nature Conservation Ref. 9.24 IAN 116/08 Nature Conservation Advice in Relation to Bats.</p>	<p>Part A Ref. 9.23, Part A Ref. 9.55, Part A Ref. 9.26, Part A Ref. 9.51, Part A Ref. 9.91, Part B Ref. 9.21 and Part B Ref. 9.24 have been superseded by LA 108. Available at: https://www.standardsforhighways.co.uk/dmr/ LD 118 Biodiversity design 10.4.1 supersedes HA 59/92 Mitigating Against Effects on Badgers, HA 67/93 The Wildflower Handbook, HA 80/99 Nature Conservation Advice in Relation to Bats, HA 81/99 Nature Conservation Advice in Relation to Otters, HA 84/01 Nature Conservation and Biodiversity, HA 97/01 Nature Conservation Management Advice in Relation to Dormice, HA 98/01 Nature Conservation Management Advice in Relation to Amphibians, HA 116/05 Nature Conservation Advice in Relation to Reptiles and Roads, IAN 116/08 Nature conservation advice in relation to bats, IAN 116/08 (W) Nature Conservation Advice in relation to Bats.</p>	<p>This full document has been re-written to make it compliant with the new Highways England drafting rules. LD 118 represents a full re-write of the guidance. The document strips back the majority of former guidance regarding survey methodology and mitigation. Instead, LD 118 references best practice, CIEEM guidelines and standing advice. References are made to other DMRB documents, including LA 108 Biodiversity in relation to Zone of Influences and Study Areas, LA 101 Introduction to environmental assessment in relation to surveys and LA 104 Environmental assessment and monitoring in relation to reporting. All of these documents are stripped back and take a similar approach. Guidance specific to reptile surveys is summarised in two paragraphs; "Use of artificial refuges" and "Population estimates". Guidance specific to badger is summarised in two paragraphs; "Survey area" and "Data publishing." There is no information within LD 118 that is specific to bats and otters.</p>	<p>LD 118 refers to best practice, CIEEM guidelines and standing advice. As the impact assessment undertaken and mitigation developed for Part A and Part B are in accordance with CIEEM guidelines, best practice and standing advice, there are no implications identified for/updates required to the biodiversity assessment for Part A and Part B.</p>
	<p>Part A: Ref. 9.17 DMRB Volume 11, Section 3, Part 1 Air Quality.</p>	<p>Part A Ref. 9.17, Part A Ref. 9.27, Part B Ref. 9.74 and Part B Ref. 9.25 have been superseded by LA 105. Available at: https://www.standardsforhighways.co.uk/dmr/</p>	<p>The assessment of operational air quality on ecological receptors was based on the outcomes of the air quality model prepared for Part A and Part B.</p>	<p>The change in the method for determining nitrogen deposition impacts has been tested. This required further analysis of nitrogen deposition impacts on designated sites. The analysis identified no change to the assessment of significance of effects for Part A and Part B. Refer to Appendix 9.27: Biodiversity</p>

ES Chapter	DMRB (and IANs) Referenced in the ES Chapter	Updated DMRB Guidance	How the Guidance has Changed	Implications for the Assessment
	<p>Ref. 9.27 IAN 174/13: Updated advice for evaluating significant local air quality effects for users of DMRB.</p> <p>Part B:</p> <p>Ref. 9.74 DMRB Volume 11, Section 3, Part 1 Air Quality.</p> <p>Ref. 9.25 IAN 174/13: Updated advice for evaluating significant local air quality effects for users of DMRB.</p>	<p>LA 105 Air quality supersedes HA 207/07 (formerly Volume 11 Section 3 Part 1 Air Quality) as well as IAN 170/12, IAN 174/13, 175/13 and part of IAN 185/15.</p>	<p>As such, reference should be made to the air quality section regarding changes to the air quality guidance.</p>	<p>DMRB Sensitivity Test, Volume 7 of this ES (Application Document Reference: TR010041/APP/6.7) and Appendix 9.12: Biodiversity DMRB Sensitivity Test, Volume 8 of this ES (Application Document Reference: TR010041/APP/6.8) for further details.</p>
	<p>Part A:</p> <p>Ref. 9.24 IAN 125/15: Environmental Assessment Update</p> <p>Part B:</p> <p>Ref. 9.22 IAN 125/15: Environmental Assessment Update</p>	<p>Part A Ref. 9.24 and Part B Ref. 9.22 have been superseded by LA 101 Introduction to environmental assessment, LA 103 Scoping project for environmental assessment and LA 104 Environmental assessment and monitoring. Available at: https://www.standardsforhighways.co.uk/dmr/</p>	<p>The content and principles contained within IAN 125/15 are largely adopted within the three new DMRB documents (LA 101, LA 103 and LA 104).</p> <p>The Screening Assessment Checklists in Annex B and Example Summary Table in Annex C are not included in the new guidance.</p>	<p>There would be no anticipated implications for the biodiversity assessment for Part A and Part B because the content and principles contained within IAN 125/15 are largely adopted within the new DMRB documents.</p>
<p>Chapter 10: Road Drainage and the Water Environment</p>	<p>Part A:</p> <p>Ref 10.16 DMRB Volume 11, Section 3, Part 10 (HD 45/09) Road Drainage and the Water Environment.</p> <p>Part B:</p> <p>Ref 10.15 DMRB Volume 11, Section 3, Part 10 (HD 45/09) Road Drainage and the Water Environment.</p>	<p>Part A Ref. 10.16 and Part B Ref. 10.15 have been superseded by LA 113. Available at: https://www.standardsforhighways.co.uk/dmr/</p>	<p>The changes to the road drainage and water environment assessment guidance are detailed below:</p> <p>1.) Highways Agency Water Risk Assessment Tool (HAWRAT) has become Highways England Water Risk Assessment Tool (HEWRAT). There are no significant changes between the tools, although, there is now an expectation and additional guidance on how to use background dissolved copper and zinc concentrations to understand the total risk as opposed to added risk of pollution occurring.</p>	<p>The potential implications of the numbered changes to guidance are considered below.</p> <p>1.) The change in background concentrations may lead to failures in the waterbody without mitigation measures, as the Water Framework Directive (WFD) publicly available data shows that the copper and zinc concentrations are both high and no site-specific data is readily available to quantify this for Part A and Part B. However, measures to mitigate the risk of failures are already included within the Scheme design as detailed in Appendix 10.3: Drainage Network Water Quality Assessment, Volume 7 of this ES (Application Document Reference: TR010041/APP/6.7) and Appendix 10.3: Drainage Network Water Quality Assessment, Volume 8 of this ES (Application Document Reference: TR010041/APP/6.8). Therefore, the assessment for Part A and Part B would remain unchanged.</p>

ES Chapter	DMRB (and IANs) Referenced in the ES Chapter	Updated DMRB Guidance	How the Guidance has Changed	Implications for the Assessment
			<p>2.) New assessment approach on groundwater levels and flows.</p> <p>3.) New guidance on Groundwater Dependant Terrestrial Ecosystems (GWDTE)</p> <p>4.) Changes to routine runoff - ephemeral streams should be assessed as a groundwater receptor and not a surface water receptor.</p> <p>5.) The 1 km buffer from a Site of Special Scientific Interest (SSSI) / Source Protection Zone (SPZ) or other sensitive areas has been removed and now requires professional judgement. Consultation should be undertaken if there is an abstraction point within 1 km downstream of an outfall.</p> <p>6.) A hydromorphological assessment is required under LA 113.</p> <p>7.) Modifications to the importance of receptor and significance criteria.</p>	<p>2.) An assessment of the impact to groundwater levels and flows has been undertaken. As part of this, a hydrogeological assessment and a sheet piling assessment for the operation of Part A and Part B has therefore been undertaken. With the application of appropriate mitigation measures, three new non-significant effects due to changes in groundwater flows and levels as a result of sheet piling, culverts and detention basins have been reported for both Part A and Part B. Refer to Appendix 10.6: Road Drainage and the Water Environment DMRB Sensitivity Test, Volume 7 of this ES (Application Document Reference: TR010041/APP/6.7) and Appendix 10.5: Road Drainage and the Water Environment DMRB Sensitivity Test, Volume 8 of this ES (Application Document Reference: TR010041/APP/6.8) for further details on the assessment and mitigation measures.</p> <p>3.) GWDTE - no surveys have been undertaken to date to identify if any GWDTE are present in the Study Area. Given the clay nature of the catchment the potential changes to these are not expected to be significant. Based on professional ecological knowledge, no impacts on GDWTE were identified due to the lack of any such ecosystems and lack of groundwater flow impacts for both Part A and Part B.</p> <p>4.) Part A: There are five ephemeral streams (watercourses with a Q95 flow of less than 1 l/s) located within the Study Area for Part A. However, due to the low permeability of the underlying geology the ability of pollutants to affect groundwater resources would be limited. Therefore, no assessment was deemed to be required, based on professional judgement. Mitigation measures for treating surface water runoff from the highway are already included in the Scheme design as detailed in Appendix 10.3: Drainage Network Water Quality Assessment, Volume 7 of this ES (Application Document Reference: TR010041/APP/6.7).</p> <p>Part B: No ephemeral streams (watercourses with a Q95 flow of less than 1 l/s) are located within the Study Area for Part B. Therefore, no additional assessment was required.</p> <p>5.) Based on professional judgement, no additional sensitive areas were identified that would be considered in the assessment following the change in guidance. There are no abstraction points within 1 km downstream of an outfall for Part A and Part B, so no further consultation was required as a result of this change.</p>

ES Chapter	DMRB (and IANs) Referenced in the ES Chapter	Updated DMRB Guidance	How the Guidance has Changed	Implications for the Assessment
				<p>6.) Hydromorphology and Part A and Part B in relation to the WFD has already been assessed. A standalone WFD assessment and road drainage and water environment assessment has been undertaken for Part A and B, and geomorphology assessments of the River Coquet (including the assessment of Parameter 10) undertaken for Part A. This existing assessment for Part A and Part B is therefore in compliance with that required under LA 113.</p> <p>7.) The changes to the importance or significance criteria would not change the outcome of the assessment for Part A and Part B.</p>
Chapter 11: Geology and Soils	<p>Part A: Ref. 11.21 DMRB Volume 11 Section 3, Part 11: Geology and Soils.</p> <p>Part B: Ref. 11.18 DMRB Volume 11 Section 3, Part 11: Geology and Soils.</p>	<p>Part A Ref. 11.21 and Part B Ref. 11.18 have been superseded by LA 109 Geology & Soils. Available at: https://www.standardsforhighways.co.uk/dmr/</p>	<p>The changes to the guidance are detailed below:</p> <ol style="list-style-type: none"> 1.) The new DMRB provides defined sensitivity / magnitude criteria (and descriptions) for impacts on geology / designated geological sites and from contamination to human health / groundwater / surface water. 2.) No requirement to assess contamination from spills / run off during operation (this is assessed under Road Drainage and the Water Environment). 3.) No requirement to assess sterilisation of mineral resources (this is to be assessed under Material Resources). 4.) No requirement to assess geohazards such as ground instability as part of the geology and soils assessment (this should be assessed and reported by Geotechnical Team under new DMRB geotechnical guidance CD622) 5.) Specific guidance documents for mitigation measures included in the new DMRB. 	<p>The potential implications of the numbered changes to guidance are considered below.</p> <ol style="list-style-type: none"> 1.) The updated assessment criteria to reflect the sensitivity and magnitude criteria now defined in the new DMRB has been considered, together with the updated significance terminology. The conclusions of the geology and soils assessment for Part A and Part B would not change. Refer to Appendix 11.5: Geology and Soils DMRB Sensitivity Test, Volume 7 of this ES (Application Document Reference: TR010041/APP/6.7) and Appendix 11.7: Geology and Soils DMRB Sensitivity Test, Volume 8 of this ES (Application Document Reference: TR010041/APP/6.8) for further detail. 2.) Potential impacts on spills / surface run off contamination would not be reported in the Geology and Soils chapter but would be reported in the Road Drainage and the Water Environment chapter following the new guidance. However, the effects of the assessment for Part A and Part B would remain the same. 3.) The new guidance requires the mineral resources / sterilisation assessment to be reported in the Material Resources chapter. Given this is a change in location of the assessment rather than a change in the assessment itself, there would be no implications to the assessment for Part A and Part B. It is noted that mineral resources are not scoped into the assessment for Part A. 4.) All text / sections that relate to the assessment of ground instability would not be reported in the Geology and Soils chapter following the new guidance. The assessment of risks from ground instability would need to be included within the

ES Chapter	DMRB (and IANs) Referenced in the ES Chapter	Updated DMRB Guidance	How the Guidance has Changed	Implications for the Assessment
			6.) No requirement to assess geomorphology (this is assessed under Road Drainage and the Water Environment for hydrological impacts and under Landscape and Visual for landscape character effects).	<p>geotechnical assessment and reports. However, the effects of the assessment for Part A and Part B would remain the same.</p> <p>5.) Specific guidance documents would be referenced in the mitigation section of the chapter following the new guidance. However, there would be no implications to the assessment for Part A and Part B or the mitigation measures detailed in Part A Chapter 11: Geology and Soils, Volume 2 of the ES (Application Document Reference: TR010041/APP/6.2) and Part B Chapter 11: Geology and Soils, Volume 3 of the ES (Application Document Reference: TR010041/APP/6.3).</p> <p>6.) No update required because geomorphology only included in terms of geologically designated sites for Part A and Part B which is consistent with the new DMRB guidance.</p>
	<p>Part A: Ref. 11.20 DMRB Volume 11 Section 3, Part 6: Land Use (2001)</p> <p>Part B: Ref. 11.17 DMRB Volume 11 Section 3, Part 6: Land Use (2001)</p>	<p>Part A Ref. 11.20 and Part B Ref. 11.17 have been superseded by LA 109 Geology & Soils (only covers agricultural land as a soil resource). Available at: https://www.standardsforhighways.co.uk/dmr/</p>	<p>The new DMRB guidance provides defined sensitivity / magnitude criteria (and descriptions) for impacts on soil resources (including agricultural land).</p>	<p>The updated sensitivity and magnitude criteria defined in the new DMRB have been considered, together with the updated significance terminology.</p> <p>Part A: The conclusions of the geology and soils assessment for Part A would not change.</p> <p>Part B: The effect on Grade 3b agricultural land for Part B which was previously assessed as not significant would be significant with the new guidance. However, the conclusions of the geology and soils assessment for Part B would not change because agricultural soils were previously assessed as significant overall. Refer to Part B Chapter 11: Geology and Soils, Volume 3 of this ES (Application Document Reference: TR010041/APP/6.3) and Appendix 11.7: Geology and Soils DMRB Sensitivity Test, Volume 8 of this ES (Application Document Reference: TR010041/APP/6.8).</p>
	<p>Part A: Ref. 11.43 DMRB Volume 11, Section 2, Part 5</p> <p>Part B: Ref. 11.43 DMRB Volume 11, Section 2, Part 5</p>	<p>Part A Ref. 11.43 and Part B Ref. 11.43 have been superseded by LA 104. Available at: https://www.standardsforhighways.co.uk/dmr/</p>	<p>The descriptors used for sensitivity and magnitude are the same for Part A Ref. 11.34 and Part B Ref. 11.43, and LA 104.</p>	<p>There would be no changes to the assessment for Part A and Part B because the sensitivity descriptors remain the same.</p>
Chapter 12: Population and Human Health	<p>Part A: Ref. 12.12 DMRB Volume 11 Section 3, Part 6 - Land use.</p>	<p>Part A Ref. 12.12 and Part B Ref. 12.11 have been superseded by LA 112. Available at: https://www.standardsforhighways.co.uk/dmr/</p>	<p>This full document has been re-written to make it compliant with the new Highways England drafting rules.</p>	<p>Land use was included under the superseded guidance. This is now covered under the topics of private property and housing, community land and assets, development land and businesses and agricultural land holdings in LA 112.</p>

ES Chapter	DMRB (and IANs) Referenced in the ES Chapter	Updated DMRB Guidance	How the Guidance has Changed	Implications for the Assessment
	<p>Part B: Ref. 12.11 DMRB Volume 11 Section 3, Part 6 - Land use.</p>		<p>LA 112 contains revised guidance on Study Areas, sensitivity criteria and magnitude of impact criteria. The assessment of effects on agricultural land in LA 112 is limited to agricultural land holdings and no longer specifies the inclusion of information on Agricultural Land Quality (this is to be covered in Geology and Soils).</p> <p>Clarity and structure provided to the assessment and streamlining to cover:</p> <p>Land-use and accessibility including;</p> <ul style="list-style-type: none"> a) Private property and housing; b) Community land and assets; c) Development land and businesses; d) Agricultural land holdings; and e) Walkers, Cyclists and Horse-riders (WCH). <p>LA 112 defines the use of a 500 m Study Area for the assessment of land use and accessibility aspects.</p>	<p>The sensitivity and magnitude of impact criteria used for the assessment of private property, commercial property, community facilities and recreational facilities is based on frequency of use and size of the receptor under the updated DMRB guidance. The application of levels of sensitivity and magnitude under both sets of guidance would mean the assessment of significance for Part A and Part B would remain the same and the assessment undertaken is robust.</p> <p>However, for Part A there would be a change to the magnitude of impact for North Gate House, as although compensation has been agreed, it would not be considered as mitigation. Therefore, when not considering compensation as mitigation the magnitude of impact would be major rather than minor. This would result in a direct, permanent effect of large significant adverse effect due to the loss of the property. However, this remains a significant effect for Part A.</p> <p>The criteria used for assessment of agricultural land holdings in the original assessment is based on industry best practice and is more detailed than that required under the updated DMRB guidance. Although there are differences, they both give an indication as to the importance of the land and access to the viability of the land holding. The categorisation of sensitivity in the current assessment is based on size and type of agricultural land holding and the updated DMRB guidance bases sensitivity on the frequency of use of land and access. Therefore, the assessment undertaken is robust and the updated guidance is unlikely to change the assessment for Part A and Part B.</p> <p>The original assessment is adequate and robust regarding land use receptors, so there are no anticipated implications for the assessment of significance for Part A and Part B, other than potential terminology changes. Refer to Part A Chapter 12: Population and Human Health, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) and Part B Chapter 12: Population and Human Health, Volume 3 of this ES (Application Document Reference: TR010041/APP/6.3) for further detail.</p>
	<p>Part A: Ref. 12.13 DMRB Volume 11 Section 3, Part 8 – Pedestrians, Equestrians,</p>	<p>Part A Ref. 12.13 and Part B Ref. 12.2 have been superseded by LA 112. Available at: https://www.standardsforhighways.co.uk/dmr/</p>	<p>This full document has been re-written to make it compliant with the new Highways England drafting rules.</p> <p>LA 112 contains revised guidance on Study Areas, sensitivity criteria and</p>	<p>Community effects and severance was included under the superseded guidance. This is now covered under the topics of community land and assets and WCH in LA 112.</p> <p>The sensitivity and magnitude of impact criteria used for the assessment of community facilities and recreational facilities is</p>

ES Chapter	DMRB (and IANs) Referenced in the ES Chapter	Updated DMRB Guidance	How the Guidance has Changed	Implications for the Assessment
	<p>Cyclists and Community Effects.</p> <p>Part B:</p> <p>Ref. 12.2 DMRB Volume 11 Section 3, Part 8 – Pedestrians, Equestrians, Cyclists and Community Effects.</p>		<p>magnitude of impact criteria. The assessment of effects on agricultural land in LA 112 is limited to agricultural land holdings and no longer specifies the inclusion of information on Agricultural Land Quality (this is to be covered in Geology and Soils).</p> <p>Clarity and structure provided to the assessment and streamlining to cover:</p> <p>Land-use and accessibility including;</p> <ul style="list-style-type: none"> a) Private property and housing; b) Community land and assets; c) Development land and businesses; d) Agricultural land holdings; and e) WCH. <p>LA 112 defines the use of a 500 m Study Area for the assessment of land use and accessibility aspects.</p>	<p>based on frequency of use and size of the receptor under the updated DMRB guidance. The application of levels of sensitivity and magnitude under both sets of guidance would mean the assessment of significance for Part A and Part B would remain the same and the assessment undertaken is robust.</p> <p>Assessment of journey amenity is not required under the updated LA 112, guidance.</p> <p>The original assessment is adequate and robust regarding community and WCH receptors so there are no further anticipated implications for the assessment of significance for Part A and Part B. Refer to Part A Chapter 12: Population and Human Health, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) and Part B Chapter 12: Population and Human Health, Volume 3 of this ES (Application Document Reference: TR010041/APP/6.3) for further detail.</p>
	<p>Part A:</p> <p>Ref. 12.14 DMRB Volume 11 Section 3, Part 9 – Vehicle Travellers.</p> <p>Part B:</p> <p>Ref. 12.3 DMRB Volume 11 Section 3, Part 9 – Vehicle Travellers.</p>	<p>Part A Ref. 12.14 and Part B Ref. 12.3 have been superseded by LA 112. Available at: https://www.standardsforhighways.co.uk/dmr/</p>	<p>This full document has been re-written to make it compliant with the new Highways England drafting rules.</p> <p>Impacts on vehicle travellers are not included in LA 112 guidance, and the aspects of 'View from the Road' and 'Driver Stress' are no longer included in the Population and Human Health assessment.</p>	<p>Assessment of vehicle travellers is no longer required under LA 112. Therefore, there are no implications to the assessment for Part A and Part B or changes required. The assessment for Part A and Part B has been retained in the ES in any event.</p>
N/A		<p>LA 112 now includes the requirement to assess human health. Available at: https://www.standardsforhighways.co.uk/dmr/</p>	<p>LA 112 now includes the requirement to assess human health. Clarity and structure provided to the assessment and streamlining to cover:</p> <ul style="list-style-type: none"> a.) Health profiles of affected communities; b.) Health determinants (e.g. noise or air pollution); and c.) Likely health outcomes. 	<p>The assessment has determined the significance of Part A and Part B's effect on human health, which differs from LA 112 which specifies reporting on impacts on health outcomes (positive, neutral, negative, uncertain) resulting from changes to health determinants (such as noise or air quality) as a result of Part A and Part B. However, the assessment of health undertaken for Part A and Part B is informed by likely changes to health determinants (community severance, accessibility, noise, etc). This means there would be no anticipated implications for the</p>

ES Chapter	DMRB (and IANs) Referenced in the ES Chapter	Updated DMRB Guidance	How the Guidance has Changed	Implications for the Assessment
	<p>Part A: Ref 12.23 DMRB Volume 5, Section 2, Part 5, HD 42/17</p> <p>Part B: Ref 12.22 DMRB Volume 5, Section 2, Part 5, HD 42/17</p>	<p>Part A Ref. 12.23 and Part B Ref. 12.22 have been superseded by GG 142 Walking, cycling and horse riding assessment and review. Available at: https://www.standardsforhighways.co.uk/dmr/</p>	<p>The updated guidance refers to WCH instead of non-motorised users (NMUs). This is solely a change in terminology and not to the actual receptors to be assessed.</p>	<p>assessment for Part A and Part B, other than potential terminology changes.</p> <p>The Population and Human Health assessment for Part A and Part B covered impacts of Part A and Part B on WCHs respectively, but it does not refer to NMUs. As this update represents a change in terminology only, there are no implications for the assessment for Part A and Part B.</p>
Chapter 13: Material Resources	<p>Part A: Ref. 12.24 DMRB Volume 11, Section 2, Part 5, HA 205/08</p> <p>Part B: Ref. 12.23 DMRB Volume 11, Section 2, Part 5, HA 205/08</p>	<p>Part A Ref. 12.24 and Part B Ref. 12.23 in particular Tables 2.1 and 2.2 has been superseded by LA 112 Population and Human Health. Available at: https://www.standardsforhighways.co.uk/dmr/</p> <p>LA 112 includes Receptor Value (Sensitivity) criteria (Table 3.11) specific to each aspect covered by the Population and Human Health assessment, and replaces the criteria suggested in Volume 11, Section 2, Part 5.</p> <p>The assessment of economy and employment, although not required under DMRB, has been undertaken making reference to Tables 2.3 and 2.4 of Part A Ref. 12.24 and Part B Ref. 12.23 for overall significance criteria.</p> <p>LA 104 includes a description of the level of significance (Table 3.7) and the significance matrix (Table 3.8.1).</p>	<p>The sensitivity criteria in LA 112 is specific to the Land Use and Accessibility aspects of the Population and Human Health assessment.</p> <p>The significance descriptors in LA 104 focuses more on whether an effect would be material in the decision-making process, however the changes are not considered to be material.</p>	<p>LA 112 includes sensitivity and magnitude criteria specific to the Population and Human Health assessment. Previously, general assessment criteria detailed in Part A Ref. 12.24 and Part B Ref. 12.23 were applied in the absence of specific criteria. The implications of LA 112 on the Population and Human Health assessment are detailed above.</p> <p>It is considered that the assessment of economy and employment is robust and with the application of the updated guidance the conclusions of the assessment for Part A and Part B would remain unchanged.</p>
	<p>Part A: Ref. 13.23 DMRB Volume 11, Section 2, Part 5: HA205/08</p> <p>Part B: Ref. 13.23 DMRB Volume 11, Section 2, Part 5: HA 205/08</p>	<p>Part A Ref. 13.23 and Part B Ref. 13.23 have been superseded by LA 104 Environmental assessment and monitoring. Available at: https://www.standardsforhighways.co.uk/dmr/</p>	<p>Generally, the guidance document has been streamlined and simplified to improve use and readability. There are some additional descriptions and changes to terms used, for example with mitigation measures e.g., embedded and essential instead of essential and desirable. The criteria for assessing significance remains the same.</p>	<p>The changes to the guidance do not affect the overall assessment findings of the chapter for Part A and Part B. This is because the methodology for assessing significance is defined in LA 110, which mean that LA 110 remains unaffected by changes to LA 104. Refer to Part A Chapter 13: Material Resources, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) and Part B Chapter 13: Material Resources, Volume 3 of this ES (Application Document Reference: TR010041/APP/6.3).</p>

ES Chapter	DMRB (and IANs) Referenced in the ES Chapter	Updated DMRB Guidance	How the Guidance has Changed	Implications for the Assessment
	<p>Part A: Ref. 13.20 IAN 153/11 Guidance on the Environmental Impact Assessment of Materials.</p> <p>Part B: Ref. 13.20 IAN 153/11 Guidance on the Environmental Impact Assessment of Materials.</p>	<p>Part A Ref. 13.20 and Part B Ref. 13.20 have been superseded by LA 110 Material assets and waste. Available at: https://www.standardsforhighways.co.uk/dmr/</p>	<p>IAN 153/11 sets out the process for simple and detailed assessments of impacts and effects from materials and waste. LA 110 does not provide a separate assessment process for materials and waste (it combines them in a single table), however the data requirements for a detailed assessment (as set out in IAN 153/11, and as used in the assessment) are comparable to those required in LA 110. Within LA 110, there is, however, an increased focus on action in accordance with the Waste Hierarchy and a drive to circular economy action.</p> <p>IAN 153/11 does not provide any criteria or thresholds for significance of effect. Significance criteria have been updated in LA 110 for materials: the assessment of the geographical source of materials has been removed, and replaced with the overall percentage of material recovery / recycling of non-hazardous construction and demolition wastes. The significance criteria used in the assessment for waste has not changed.</p>	<p>The changes to the assessment processes between IAN153/11 and LA 110 required updates to the assessment methodology, specifically to reflect the updated criteria.</p> <p>Part A: The change in methodology to LA 110 would mean that the materials assessment for Part A would now reach a 'moderate' threshold in LA 110, which would trigger a significant adverse effect (previously assessed as 'not significant'). The reason for this change is Part A would achieve less than 70% overall material recovery/recycling (by weight) of non-hazardous Construction and Demolition (C&D) arisings to substitute use of primary materials (a high level estimate indicates 61% recovery).</p> <p>However, with the application of LA 110 and triggering of a significant effect, additional mitigation would be required. With this mitigation, there would be no significant effects for Part A. Refer to Part A Chapter 13: Material Resources, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) for further details on the DMRB sensitivity test and additional mitigation.</p> <p>Part B: The change in methodology to LA 110 would mean that the materials assessment for Part B would reach a 'slight' significance threshold, which would result in a 'not significant' effect (also previously assessed as 'not significant' in the original assessment). This is because Part B would achieve more than 70% overall material recovery/ recycling (by weight) of non-hazardous C&D arisings (to substitute the use of primary materials); a high level estimate indicates 99% recovery would be achieved. Refer to Part B Chapter 13: Material Resources, Volume 3 of this ES (Application Document Reference: TR010041/APP/6.3) for further details.</p> <p>Waste: The significance criteria for waste has not changed from those used in the assessment, and no further work for this topic for Part A and Part B is required.</p>
Chapter 14: Climate	<p>N/A</p> <p>At the time of writing the chapter there were no DMRB/IAN/Highways England guidance on climate. The chapter instead referred to the following for guidance: IEMA, European</p>	<p>LA 114 does not supersede any previous climate DMRB document. Available at: https://www.standardsforhighways.co.uk/dmr/</p>	<p>Not applicable as there was no previous guidance.</p>	<p>The overall scope of LA 114 aligns with the scope of the climate assessment for Part A and Part B.</p> <p>For the GHG assessment, the methods used for the assessment for Part A and Part B align with LA 114, as such, there are no implications or changes needed:</p> <p>1.) There are no changes in the Study Area for Part A and Part B, baseline assessment or data collection sources.</p>

ES Chapter	DMRB (and IANs) Referenced in the ES Chapter	Updated DMRB Guidance	How the Guidance has Changed	Implications for the Assessment
	Commission and National Networks-National Policy Statement.			<p>2.) The significance of GHG emissions was reported against the national carbon budgets for Part A and Part B, which aligns with LA 114 methods.</p> <p>3.) No changes are applicable to the design and mitigation methods for Part A and Part B.</p> <p>For climate vulnerability there is a slight change in the significance matrix as detailed below. No other implications are evident for Part A and Part B:</p> <p>1.) The significance criteria set out in LA 114, are replicated in the assessment for Part A and Part B. The significance matrix in LA 1114 (Table 3.41 of LA 114) differs slightly to the significance matrix within Part A Chapter 14: Climate, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) and Part B Chapter 14: Climate, Volume 3 of this ES (Application Document Reference: TR010041/APP/6.3). The significance matrix within Part A Chapter 14: Climate, Volume 2 of this ES and Part B Chapter 14: Climate, Volume 3 of this ES presents more 'significant' categories. Therefore, the implication to the assessment for Part A and Part B would be a reduction in significant aspects presented in the climate assessment, however no significant categories were identified. As such, there is no change to the assessment for Part A and Part B.</p> <p>2.) The Study Area for the baseline scenario for Part A comprised a 25 km² grid square, which incorporates Part A, and was supplemented by regional data. The Study Area for the baseline scenario for Part B comprised the North East England. This is considered proportionate for the assessment and in accordance with LA 114. The assessment of potential impacts for Part A (Table 14-14 in Part A Chapter 14: Climate, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2)) relate to Part A features within the Order Limits. The assessment of potential impacts for Part B (Table 14-14 and Table 14-15 in Part B Chapter 14: Climate, Volume 3 of this ES (Application Document Reference: TR010041/APP/6.3)) relate to Part B features within the Order Limits.</p> <p>3.) In line with LA 114, the baseline assessment for Part A and Part B included historical weather patterns and the UKCP18 probabilistic projections for a high risk scenario using the 50th percentile, and scenarios for extreme precipitation and weather events. The assessment uses a long term (2080) timeslice.</p>

ES Chapter	DMRB (and IANs) Referenced in the ES Chapter	Updated DMRB Guidance	How the Guidance has Changed	Implications for the Assessment
				<p>4.) The data collection aspects used in the assessment cover the construction, operation and end users of Part A and Part B. The examples of potential climate impacts provided in Table 3.35N of LA 114 are considered to have been adequately covered in the climate assessment where applicable to Part A and Part B.</p> <p>5.) The assessment for Part A and Part B follows a risk assessment approach as highlighted in Paragraph 3.38 of LA 114, setting out the hazards, risks, consequences, likelihood and significance rating.</p>
Chapter 15 Assessment of Combined Effects	<p>Part A: Ref. 15.3 DMRB Volume 11, Section 2, Part 5 Assessment and Management of Environmental Effects. HA205/08.</p> <p>Part B: Ref. 15.3 DMRB Volume 11, Section 2, Part 5 Assessment and Management of Environmental Effects. HA205/08.</p>	<p>Part A Ref. 15.3 and Part B Ref. 15.3 have been superseded by DMRB, LA 104 Environmental assessment and monitoring. Available at: https://www.standardsforhighways.co.uk/dmrb/</p>	<p>Part A Ref. 15.3 and Part B Ref. 15.3 sets out that combined effects from a single project should be considered within an EIA. In addition, a table for determining the significance of cumulative effects (Table 2.6), including combined effects, is presented within Part A Ref. 15.3 and Part B Ref. 15.3.</p> <p>LA 104 also requires combined effects to be considered as part of an EIA. LA 104 does not include a significance table but does note that cumulative assessments, including combined assessments, should adhere to the requirements of LA 104. The requirements are broadly the same as HA 205/08 but LA 104 provides more detail on the process that should be undertaken for the cumulative assessment. In particular, LA 104 indicates that a list of other projects that could act cumulatively with the development should be established and further information on these projects should be obtained.</p> <p>Although the significance descriptors in LA 104 focuses more on whether an effect would be material in the decision-making process, the levels of significance are similar except for the</p>	<p>The application of the significance criteria within LA 104 is not anticipated to materially change the combined effects assessment for Part A and Part B. This is due to the similarities between the significance criteria in Part A Ref. 15.3 and Part B Ref. 15.3, and LA 104. The approach to the original combined effects assessment is considered to be compliant with LA 104.</p>

ES Chapter	DMRB (and IANs) Referenced in the ES Chapter	Updated DMRB Guidance	How the Guidance has Changed	Implications for the Assessment
	N/A	N/A	<p>terminology used (e.g. minor and slight).</p> <p>The combined effects assessment for Part A and Part B is based on the outcomes of the Part A and Part B technical assessments. Therefore, the DMRB sensitivity test for the Part A and Part B technical chapters (this table of this appendix) is applicable to the combined effects assessment presented in Part A Chapter 15: Assessment of Combined Effects, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) and Part B Chapter 15: Assessment of Combined Effects, Volume 3 of this ES (Application Document Reference: TR010041/APP/6.3).</p>	<p>Part A: With the application of the updated DMRB guidance, the permanent loss of North Gate House would increase from a moderate adverse effect to large adverse effect. However, this would not change the combined effect on residents in the vicinity of Part A during the construction, which is already moderate to large adverse.</p> <p>In addition, the total number of significant beneficial noise effects for Part A has increased as a result of application of the updated DMRB guidance. There would also be the potential for one additional significant adverse effect at Northgate Farm if the noise barrier cannot be built at this location, however, it is likely that this property would be eligible for compensation under the Noise Insulation Regulations if this is the case. However, this would not change the combined effect on residents during the operation of Part A, which was already major beneficial and major adverse significance.</p> <p>Part B: With the application of the updated DMRB guidance, the effect on Grade 3b agricultural land which was previously assessed as slight adverse (not significant) would be assessed as moderate adverse. However, the conclusions of the Geology and Soils assessment would not change because agricultural soils were previously assessed as significant overall. Therefore, this would not change the combined effect on agricultural land and associated rural enterprises during the construction of Part B, which is already very large adverse.</p> <p>In addition, an existing beneficial significant effect for noise would increase from moderate beneficial to major beneficial. However, this would not change the combined effects assessment for residents during the operation of Part B, which is already major beneficial to moderate adverse significance.</p>

Table 3 - DMRB Sensitivity Test for Summary Chapters (refer to Volume 4 of this ES (Application Document Reference: TR010041/APP/6.4))

ES Chapter	DMRB (and IANs) Referenced in the ES Chapter	Updated DMRB Guidance	How the Guidance has Changed?	Implications for the Assessment
Chapter 16: Assessment of Cumulative Effects	Ref. 16.8 DMRB Volume 11, Section 2, Part 5 Assessment and Management of Environmental Effects. HA 205/08.	Ref. 16.8 has been superseded by LA 104 Environmental assessment and monitoring. Available at: https://www.standardsforhighways.co.uk/dmrb/	The cumulative effect section of the LA 104 now states that the following should be considered within the cumulative assessment which was not included within the previous DMRB guidance: "3) proposals in adopted development plans with a clear identified programme for delivery."	The cumulative and combined assessment complies with the changes in LA 104. As per Section 16.4 of Chapter 16: Assessment of Cumulative Effects, Volume 4 of this ES (Application Document Reference: TR010041/APP/6.4), relevant developments were included in the cumulative assessment. This approach is consistent with Planning Inspectorate Advice Note Seventeen.
	N/A	N/A	The combined effects and cumulative effects assessment is based on the outcomes of the technical assessments for the Scheme. Therefore, the DMRB sensitivity test for Part A and Part B (Table 2 of this appendix) is applicable to the combined effects and cumulative effects assessment presented in Chapter 16: Assessment of Cumulative Effects, Volume 4 of this ES (Application Document Reference: TR010041/APP/6.4).	The DMRB sensitivity test for Part A and Part B (Table 2 of this appendix) is applicable to the combined effects and cumulative effects assessment presented in Chapter 16: Assessment of Cumulative Effects, Volume 4 of this ES (Application Document Reference: TR010041/APP/6.4). When considering the updated guidance for the technical assessments, there would be no change to the cumulative effects assessment.
Chapter 17: Summary	Ref 17.1 DMRB Volume 11, Section 2, Part 5	Ref. 17.1 has been superseded by DMRB, LA 104 Environmental assessment and monitoring. Available at: https://www.standardsforhighways.co.uk/dmrb/ LA 104 includes a description of the level of significance (Table 3.7) and the significance matrix (Table 3.8.1).	The significance descriptors in LA 104 focuses more on whether an effect would be material in the decision-making process, however the changes are not considered to be material.	It is considered that the assessment is robust and with the application of the updated guidance the conclusions of the assessment would remain unchanged.
	Ref 17.2 Design Manual for Roads and Bridges (DMRB)	Ref. 17.2 has been superseded by updated DMRB guidance. The full suite of updated DMRB guidance is available at: https://www.standardsforhighways.co.uk/dmrb/	Updates to the DMRB guidance relevant to each chapter of the ES and other relevant documents forming part of the Application are set out in Tables 1 to 5 of this document. While the superseded guidance is referred to within Chapter 17: Summary, Volume 4 of this ES (Application Document Reference: TR010041/APP/6.4), the updated guidance does not affect this chapter.	N/A

Table 4 - DMRB Sensitivity Test for Habitat Regulation Assessment (refer to Volume 14 of this ES (Application Document Reference: TR010041/APP/6.14))

ES Chapter	DMRB (and IANs) Referenced in the ES Chapter	Updated DMRB Guidance	How the Guidance has Changed?	Implications for the Assessment
Habitats Regulation Assessment (HRA)	Ref. 4 DMRB Volume 11, Section 4, 'Assessment of Implications on European Sites' (HD 44/09)	Ref. 4 has been superseded by LA 115 Habitats Regulations Assessment Available at: https://www.standardsforhighways.co.uk/dmr/	The full document has been re-written to make it compliant with the new Highways England drafting rules. The wording of the updated guidance is clearer, although there are no major changes in the content or changes to the approach of the assessment.	No implications identified for/updates required to the assessment for the Scheme because there are no major changes in the content of the guidance or changes to the assessment approach.
	Ref. 5 IAN 141/11 'Assessment of Implications on European Sites'	There is no replacement document for IAN 141/11 and it is therefore obsolete.	N/A	N/A
	Ref. 10 DMRB Air Quality, HA 207/07, Volume 11, Section 3, Part 1 'Air Quality'	Ref. 10 has been superseded by LA 105. LA 105 Air quality supersedes HA 207/07 (formerly Volume 11 Section 3 Part 1 Air Quality) as well as IAN 170/12, IAN 174/13, 175/13 and part of IAN 185/15. Available at: https://www.standardsforhighways.co.uk/dmr/	The changes update and refine the air quality assessment methodology that was previously specified in HA 207/07 and associated IANs. In relation to the ecological assessment for the HRA, LA 105 results in a change to screening criteria to define the ARN: separate criteria concerning average and peak speed changes replaced with speed band change criterion.	Reference to HA 207/07 in the HRA is exclusively in relation to the definition of the ARN. The wording of the criteria for the ARN has changed slightly. LA 105 replaces the criteria in HA 207/07 that relate to changes in daily average speed (by 10 km/hr or more) and peak hour speed (by 20 km/hr or more) with criteria "3) a change in speed band". However, this change is not anticipated to result in a change to the ARN. This is because changes in speed band would most likely be where there is a substantial change in traffic (1000 Average Annual Daily Traffic (AADT) or more), which would be captured within the ARN. Therefore, no additional European sites have been scoped into the assessment for the Scheme.

Table 5 - DMRB Sensitivity Test for Outline Construction Environmental Management Plan (Application Document Reference: TR010041/APP/7.3)

ES Chapter	DMRB (and IANs) Referenced in the ES Chapter	Updated DMRB Guidance	How the Guidance has Changed	Implications for the Assessment
Outline Construction Environmental Management Plan (CEMP)	Ref. 2 DMRB Volume 11, Section 2, Part 5	Ref. 2 has been superseded by updated DMRB guidance. Available at: https://www.standardsforhighways.co.uk/dmr/	Updates to the DMRB guidance relevant to each chapter of the ES and other relevant documents forming part of the Application are set out in Tables 1 to 5 of this document.	N/A

ES Chapter	DMRB (and IANs) Referenced in the ES Chapter	Updated DMRB Guidance	How the Guidance has Changed	Implications for the Assessment
	<p>Ref. 2 IAN 183/14, Environmental Management Plans</p>	<p>Ref. 2 has been superseded by LA 120 Environmental management plans. Available at: https://www.standardsforhighways.co.uk/dmrb/</p>	<p>LA 120 was re-written to make it compliant with the new Highways England drafting rules.</p> <p>Key changes include:</p> <ol style="list-style-type: none"> 1) A change to the naming protocol. LA 120 now refers to iterations rather than outline, construction and handover. 	<p>The implications of the key changes on the Outline CEMP (Application Document Reference: TR010041/APP/7.3) is as follows:</p> <ol style="list-style-type: none"> 1) This would have no material change on the Outline CEMP because it in relation to changes to the naming protocol.

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