

A1 in Northumberland: Morpeth to Ellingham

Scheme Number: TR010041

6.4 Environmental Statement – Chapter 17 Summary

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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17. SUMMARY

17.1. INTRODUCTION

- 17.1.1. This chapter provides a summary of the likely significant effects reported in this Environmental Statement (ES). Topic specific impact assessments are presented in detail in the **Technical Chapters 5 to 16** for Part A: Morpeth to Felton (Part A) in **Volume 2** of this ES (**Application Document Reference: TR010041/APP/6.2**) and Part B: Alnwick to Ellingham (Part B) in **Volume 3** of this ES (**Application Document Reference: TR010041/APP/6.3**). The assessment summaries are set out in **Table 17-2** and **Table 17-3**.
- 17.1.2. A non-technical summary of the ES is also available in **Volume 9** of this ES (**Application Document Reference: TR010041/APP/6.9**).

17.2. COMPETENT EXPERT EVIDENCE

- 17.2.1. The competence of those persons involved in the production of this ES chapter are set out in **Table 17-1**.

Table 17-1 – Professional Competence

Name	Role	Qualifications and Professional Membership	Experience
Nicola Townley	Author	BSc (Hons) in Environmental Management MSc in Environmental Impact Assessment and Management Graduate Member of the Institute of Environmental Management and Assessment (IEMA)	Assistant Consultant 1 and a half years' experience in environmental consulting relating to the preparation and coordination of Environmental Impact Assessments (EIAs). Other recent relevant experience includes: – Assistant to the environment lead for Alwoodley Gates Park and Ride EIA
Declan Franklin	Author	BSc (Hons) in Geography Practitioner member of IEMA (PIEMA)	Senior Consultant 4 years' experience in environmental consultancy and coordinating Environmental Impact Assessments. Other relevant experience includes: – Assistant coordinator for this EIA and ES

Name	Role	Qualifications and Professional Membership	Experience
			<ul style="list-style-type: none"> – Assistant EIA coordinator and lead author for the cumulative effect's assessment and ES non-technical summary for the East West Rail Phase 2 project – Environmental lead for Macclesfield Rail Resignalling, Blackpool Sidings and Anglesey Overhead Line Routing assessments
Victoria Wilson	Part B Environmental Assessment Lead – responsible for co-ordinating the EIA and preparation of the ES	BSc (Hons) in Ecology MSc in Environmental Analysis and Assessment Full Member of the Institute of IEMA Chartered Environmentalist (CEnv)	Associate 20 years' experience in environmental regulation, and assessment and management of engineering schemes. Other recent relevant experience includes: <ul style="list-style-type: none"> – Environmental assessment lead for the A19 Norton to Wynyard improvement scheme for preliminary design stage – Environmental assessment lead for a number of strategic road studies including: <ul style="list-style-type: none"> ○ Trans-Pennine Tunnel: Wider Transport Connectivity Assessment; and ○ Oxford to Cambridge Expressway – EIA Project Manager for A45 Daventry Development Link for Northamptonshire County Council

Name	Role	Qualifications and Professional Membership	Experience
Nic Macmillan	Part A Environmental Assessment Lead – responsible for co-ordinating the EIA and preparation of the ES	BSc (Hons) Special Physical Geography PGCert Environmental Management and Technology Practitioner Member of the Institute of Environmental Management and Assessment (IEMA) IEMA Approved Advanced EMS Auditor (UK)	Associate 16 years' experience in environmental assessment and management of engineering schemes. Other recent relevant experience includes: <ul style="list-style-type: none"> – Secondment to Highways England – to assist with review and update of the Environmental Risk Assessment product; reviewing Environmental Management Plans; production of Smart Motorways Environmental Study Report templates. – State of the Environment Report, Technical Lead, Highways England – DMRB People and Communities Guidance development, Technical Specialist, Highways England – A19 Coast Road Junction Improvement scheme. Assistant EIA Coordinator, Highways England – development consent order.
Kevin Stubbs	Reviewer	Higher National Diploma in Rural Resources and their Management MA in Landscape Management Chartered Member of the Landscape Institute	Technical Director 30 years' experience in the environmental sector. Other recent relevant experience includes: <ul style="list-style-type: none"> – Technical Director for the A1 Birtley to Coal

Name	Role	Qualifications and Professional Membership	Experience
		Member of the Chartered Institute of Ecology and Environmental Management (CIEEM)	House scheme for Options Identification and Options Selection stages, and currently for preliminary design stage – Environment Technical Director for A19/A1058 Coast Road Improvement and A19 Norton to Wynyard Improvements (preliminary design stage) – Environment Technical Director for A1 Scotswood to North Brunton (option identification and option selection stage) Improvement schemes

17.3. SIGNIFICANCE OF EFFECTS

17.3.1. The approach to the assessments has been based on the guidance in the Design Manual for Roads and Bridges (DMRB) Volume 11 Section 2 Part 5 (Ref. 17.1) and a DMRB sensitivity test has been undertaken based on the updated DMRB guidance published after the conclusion of the assessments reported in this ES (Ref. 17.2). The approach to the environmental assessment for each topic, including the results of the DMRB sensitivity test for each topic, is presented in the **Technical Chapters 5 to 15** for Part A, **Volume 2** of this ES (**Application Document Reference: TR010041/APP/6.2**) and Part B, **Volume 3** of this ES (**Application Document Reference: TR010041/APP/6.3**). In accordance with the DMRB, the assessments cover the likely significant effects arising from the permanent and temporary, direct, indirect, secondary, cumulative, short, medium and long-term, positive and negative effects of the Scheme.

17.3.2. As explained in **Section 4.5** of **Chapter 4: Environmental Assessment Methodology, Volume 1** of this ES (**Application Document Reference: TR010041/APP/6.1**), effects, whether adverse or beneficial, assessed as “moderate” or above significance are deemed to be significant. Effects determined to be slight or neutral are deemed to be not significant. Where this threshold varies for a technical chapter, it is explained in the methodology section of the respective chapter. **Table 17-2** presents a summary of significant effects for

Part A, while **Table 17-3** presents a summary of significant effects for Part B. **Table 17-4** presents a summary of significant effects both for the Scheme as a whole (i.e. the in combination effects of Part A and Part B) and the cumulative assessment of the Scheme and other developments. Where a significant effect has arisen as a result of the DMRB sensitivity test, this has been referred to in the relevant table under an additional heading title 'DMRB Sensitivity Test'. For chapters where there are no new significant effects as a result of the DMRB sensitivity test, the tables do not make reference to the sensitivity test.

17.4. MITIGATION

- 17.4.1. Measures to mitigate the significant effects of the Scheme have been identified and included, as necessary, within the **Technical Chapters 5 to 15, Volume 2 (Application Document Reference: TR010041/APP/6.2)** and **Volume 3 (Application Document Reference: TR010041/APP/6.3)** of this ES. Mitigation measures have also been included in the Register of Environmental Actions and Commitments (REAC) which forms part of the **Outline Construction Environmental Management Plan (Outline CEMP) (Application Document Reference: TR010041/APP/7.3)** which accompanies the Development Consent Order (DCO) application.

17.5. SUMMARY OF LIKELY SIGNIFICANT EFFECTS

- 17.5.1. **Table 17-2, Table 17-3** and **Table 17-4** below summarise the likely significant environmental effects for the Scheme, listed for Part A, Part B and cumulative effects (including an assessment of the Scheme as a whole) respectively. **Table 17-4** only presents the likely significant effects of the Scheme that are additional to the effects reported in **Table 17-2** and **Table 17-3**. The tables also detail the mitigation measures associated with the effects and their delivery mechanisms, as well as any associated enhancement measures.
- 17.5.2. Refer to **Technical Chapters 5 to 15** for Part A, **Volume 2** of this ES (**Application Document Reference: TR010041/APP/6.2**) and for Part B, **Volume 3 (Application Document Reference: TR010041/APP/6.3)** of this ES and the **Outline CEMP (Application Document Reference: TR010041/APP/7.3)** for comprehensive detail on mitigation measures.

Key to table:

P / T = Permanent or Temporary; D / I = Direct or Indirect; ST / MT / LT = Short-Term, Medium-Term or Long-Term; N/A = Not Applicable

Table 17-2 – Part A: Summary of Significant Effects (refer to Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2))

Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements
Chapter 5: Air Quality					
No significant adverse or beneficial Air Quality effects have been identified for the construction or operational phase of Part A.					
Chapter 6: Noise and Vibration					
No significant adverse or beneficial effects have been identified for the construction phase of Part A.					
Decrease in noise levels at 13 dwellings and three other sensitive receptors (Tritlington Church of England School and two Oakwood Holiday Cottages) (referred to in Chapter 6: Noise and Vibration, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) as 'Group 1')	Operation	Application of Low Noise Road Surfacing and noise barriers.	CEMP	Major and Moderate Beneficial D / P / LT	N/A
Potential decrease in noise levels at three properties (Warreners Cottages and Northgate Farm)	Operation	Noise enhancement barrier (PNB1), however due to design constraints the construction of this barrier is not yet confirmed.	N/A (Policy compliance enhancement measure)	Moderate Beneficial (subject to the barrier being constructed) D / P / LT	N/A
Potential decrease in noise levels at Felmoor Park and Bockenfield Holiday Park	Operation	Noise enhancement barrier (PNB4), however due to design constraints the construction of this barrier is not yet confirmed.	N/A (Policy compliance enhancement measure)	Moderate or Major Beneficial (subject to the barrier being constructed) D / P / LT	N/A
Increase in noise levels at The Cottage	Operation	The noise barrier (PNB2)	CEMP	Major Adverse D / P / LT	N/A
Increase in noise levels at Joiners Cottage	Operation	The noise barrier (PNB2)	CEMP	Moderate adverse D / P / LT	N/A
Increase in noise levels at New Houses Farm	Operation	The noise barrier (PNB3)	CEMP	Moderate Adverse D / P / LT	N/A

Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements
Updated DMRB Guidance					
Potential for one additional significant adverse effect at Northgate Farm if the noise barrier (PNB1) cannot be built at this location, however, it is likely that this property would be eligible for compensation under the Noise Insulation Regulations (NIR) if this is the case	Operation	Noise enhancement barrier (PNB1), however due to design constraints the construction of this barrier is not yet confirmed.	N/A (Policy compliance enhancement measure)	Minor Adverse (considered to be significant under updated guidance) if PNB1 cannot be constructed D / P / LT	N/A
Decrease in noise levels for 11 additional dwellings in the Scheme Study Area: Part A.	Operational	Application of Low Noise Road Surfacing and noise barriers (PNB 2 and PNB3)	CEMP	Major and Moderate Beneficial D / P / LT	N/A
Chapter 7: Landscape and Visual					
Effects on the perception of landscape character in Landscape Character Area (LCA) 38b Lowland Rolling Farmland – Longhorsley, 35a Broad Lowland Valley – Coquet Valley	Construction	Manage construction activities: avoid unnecessary loss of vegetation outside working area and protect retained vegetation. Arrange compound so that temporary soil bunds screen views and potential light pollution.	CEMP	Moderate adverse D / T / ST	Main contractor to identify and monitor protection measures for retained vegetation for the duration of the construction period.
Effects on the perception of landscape character in LCA 38b Lowland Rolling Farmland – Longhorsley, 35a Broad Lowland Valley – Coquet Valley and 17 Coquet Valley	Operation (Winter Year 1)	Deliver mitigation strategy as per the Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)).	Landscape Mitigation Masterplan / Landscape Management Plan / Handover Environmental Management Plan (HEMP)	Moderate Adverse D / P / LT	Monitoring of the growth and establishment of the planting strategy by The Applicant implemented as part of the Scheme through the HEMP, via the CEMP and as a requirement in the DCO.
Local landscape area of the River Coquet bridge	Construction	Manage construction activities: avoid unnecessary loss of vegetation outside working area and protect retained vegetation. Arrange compound so that temporary soil bunds screen views and potential light pollution.	CEMP	Large Adverse D / T / ST	Main contractor to identify and monitor protection measures for retained vegetation for the duration of the construction period.
Local landscape area of the River Coquet bridge	Operation (Winter Year 1)	Deliver mitigation strategy as per the Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)).	Landscape Mitigation Masterplan / Landscape Management Plan / Handover Environmental Management Plan (HEMP)	Large Adverse D / P / LT	Monitoring of the growth and establishment of the planting strategy by The Applicant implemented as part of the Scheme through the HEMP, via the CEMP and as a requirement in the DCO.

Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements
<p>Residential receptors subject to adverse visual effects at:</p> <ul style="list-style-type: none"> – VP 1 - View looking north, along West View – VP 5 – View looking south -west from Public Right of Way (PRoW) (407/018) Beacon Hill – VP 10 - View looking south-west from PRoW (423/002) at The Farmhouse – VP 36 - View looking east from PRoW (423/001) at Fenrother 	Construction	Manage construction activities: avoid unnecessary loss of vegetation outside working area and protect retained vegetation. Arrange compound so that temporary soil bunds screen views and potential light pollution.	CEMP	Moderate Adverse D / T / ST	Main contractor to identify and monitor protection measures for retained vegetation for the duration of the construction period.
<p>Residential receptors subject to adverse visual effects at:</p> <ul style="list-style-type: none"> – VP-27 - View looking north-east from Howdens Glebe cottages, off West Moor Road 	Construction	Manage construction activities: avoid unnecessary loss of vegetation outside working area and protect retained vegetation. Arrange compound so that temporary soil bunds screen views and potential light pollution.	CEMP	Large Adverse D / T / ST	Main contractor to identify and monitor protection measures for retained vegetation for the duration of the construction period.
<p>PRoW users subject to adverse visual effects at:</p> <ul style="list-style-type: none"> – VP 3 - View looking north-west towards the start of Coronation Avenue from PRoW (407/010) – VP 5 - View looking south -west from PRoW (407/018) Beacon Hill – VP-8 - View looking north-west from PRoW (423/001) at the northern extent of Coronation Avenue – VP-9 - View looking west from south bound bus stop located along existing A1 – VP-10 - View looking south-west from PRoW (423/002) at The Farmhouse – VP-18 - View looking north-west from PRoW (422/020) – VP-19 - View looking north from PRoW (422/020) 	Construction	Manage construction activities: avoid unnecessary loss of vegetation outside working area and protect retained vegetation. Arrange compound so that temporary soil bunds screen views and potential light pollution.	CEMP	Moderate Adverse D / T / ST	Main contractor to identify and monitor protection measures for retained vegetation for the duration of the construction period.

Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements
<ul style="list-style-type: none"> – VP-20 -View looking south from PRoW (422/020) – VP-23 - View looking north-east from PRoW (115/016) – VP-36 - View looking east from PRoW (423/001) at Fenrother 					
<p>PRoW users subject to adverse visual effects at:</p> <ul style="list-style-type: none"> – VP-4 - View looking west from Hebron Road within the vicinity of the Church of St Cuthbert – VP-6 – View looking north-west from PRoW (407/018) at Beacon Hill – VP-29 - View looking north-east from PRoW (422/012) – VP-32 - View looking south-east from PRoW (423/013) – VP-33 - view looking south-west from PRoW (423/006) – VP-37 - view looking north from PRoW (423/001) 	Construction	Manage construction activities: avoid unnecessary loss of vegetation outside working area and protect retained vegetation. Arrange compound so that temporary soil bunds screen views and potential light pollution.	CEMP	Large Adverse D / T / ST	Main contractor to identify and monitor protection measures for retained vegetation for the duration of the construction period.
<p>Users of Long Distance Path:</p> <ul style="list-style-type: none"> – VP-24 - View looking south-east from St Oswald's way 	Construction	Manage construction activities: avoid unnecessary loss of vegetation outside working area and protect retained vegetation. Arrange compound so that temporary soil bunds screen views and potential light pollution.	CEMP	Large Adverse D / T / ST	Main contractor to identify and monitor protection measures for retained vegetation for the duration of the construction period.
<p>Road users subject to adverse visual effects at:</p> <ul style="list-style-type: none"> – VP 4 - View looking west from Hebron Road within the vicinity of the Church of St Cuthbert – VP 28 - View looking east from PRoW (422/011) adjacent to Burgham Park Golf and Leisure Club 	Construction	Manage construction activities: avoid unnecessary loss of vegetation outside working area and protect retained vegetation. Arrange compound so that temporary soil bunds screen views and potential light pollution.	CEMP	Moderate Adverse D / T / ST	Main contractor to identify and monitor protection measures for retained vegetation for the duration of the construction period.

Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements
<ul style="list-style-type: none"> VP 31 - View looking east from Causey Park Hag/Causey Park Road 					
<p>Road users subject to adverse visual effects at:</p> <ul style="list-style-type: none"> VP 27 - View looking north-east from Howdens Glebe cottages, off West Moor Road 	Construction	Manage construction activities: avoid unnecessary loss of vegetation outside working area and protect retained vegetation. Arrange compound so that temporary soil bunds screen views and potential light pollution.	CEMP	Large Adverse D / T / ST	Main contractor to identify and monitor protection measures for retained vegetation for the duration of the construction period.
<p>Residential receptors subject to adverse visual effects at:</p> <ul style="list-style-type: none"> VP 27 - View looking north-east from Howdens Glebe cottages, off West Moor Road 	Operation (Year 1)	Deliver mitigation strategy as per the Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)).	Landscape Mitigation Masterplan / Landscape Management Plan / HEMP	Moderate Adverse D / P / LT	Monitoring of the growth and establishment of the planting strategy by The Applicant implemented as part of the Scheme through the HEMP, via the CEMP and as a requirement in the DCO.
<p>Users of PRow subject to adverse visual effects at:</p> <ul style="list-style-type: none"> VP-4 - View looking west from Hebron Road within the vicinity of the Church of St Cuthbert VP-5 – View looking south -west from PRow (407/018) Beacon Hill VP-6 – View looking north-west from PRow (407/018) at Beacon Hill VP-8 - View looking north-west from PRow (423/001) at the northern extent of Coronation Avenue VP-9 - View looking west from south bound bus stop located along existing A1 VP-29 - View looking north-east from PRow (422/012) VP-33 - view looking south-west from PRow (423/006) VP-36 - View looking east from PRow (423/001) at Fenrother 	Operation (Year 1)	Deliver mitigation strategy as per the Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)).	Landscape Mitigation Masterplan / Landscape Management Plan / HEMP	Moderate Adverse D / P / LT	Monitoring of the growth and establishment of the planting strategy by The Applicant implemented as part of the Scheme through the HEMP, via the CEMP and as a requirement in the DCO.

Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements
<p>Users of PRow subject to adverse visual effects at:</p> <ul style="list-style-type: none"> VP-32 - View looking south-east from PRow (423/013) VP-37 - view looking north from PRow (423/001) 	Operation (Year 1)	Deliver mitigation strategy as per the Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)).	Landscape Mitigation Masterplan / Landscape Management Plan / HEMP	Large Adverse D / P / LT	Monitoring of the growth and establishment of the planting strategy by The Applicant implemented as part of the Scheme through the HEMP, via the CEMP and as a requirement in the DCO.
<p>Users of Long Distance Path:</p> <ul style="list-style-type: none"> VP-24 - View looking south-east from St Oswald's way 	Operation (Year 1)	Deliver mitigation strategy as per the Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)).	Landscape Mitigation Masterplan / Landscape Management Plan / HEMP	Moderate Adverse D / P / LT	Monitoring of the growth and establishment of the planting strategy by The Applicant implemented as part of the Scheme through the HEMP, via the CEMP and as a requirement in the DCO.
<p>Road users subject to adverse visual effects at:</p> <ul style="list-style-type: none"> VP-4 - View looking west from Hebron Road within the vicinity of the Church of St Cuthbert VP-27 - View looking north-east from Howdens Glebe cottages, off West Moor Road VP-28 - View looking east from PRow (422/011) adjacent to Burgham Park Golf and Leisure Club VP-31 - View looking east from Causey Park Hag/Causey Park Road 	Operation (Year 1)	Deliver mitigation strategy as per the Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)).	Landscape Mitigation Masterplan / Landscape Management Plan / HEMP	Moderate Adverse D / P / LT	Monitoring of the growth and establishment of the planting strategy by The Applicant implemented as part of the Scheme through the HEMP, via the CEMP and as a requirement in the DCO.
<p>Residential receptors subject to adverse visual effects at:</p> <ul style="list-style-type: none"> VP-27 - View looking north-east from Howdens Glebe cottages, off West Moor Road 	Operation (Year 15)	Deliver mitigation strategy as per the Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)).	Landscape Mitigation Masterplan / Landscape Management Plan / HEMP	Moderate Adverse D / P / LT	Monitoring of the growth and establishment of the planting strategy by The Applicant implemented as part of the Scheme through the HEMP, via the CEMP and as a requirement in the DCO.
<p>Users of PRow subject to adverse visual effects at:</p> <ul style="list-style-type: none"> VP-8 - View looking north-west from PRow (423/001) at the 	Operation (Year 15)	Deliver mitigation strategy as per the Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES	Landscape Mitigation Masterplan / Landscape Management Plan / HEMP	Moderate Adverse D / P / LT	Monitoring of the growth and establishment of the planting strategy by The Applicant implemented as part of the Scheme through the HEMP, via the CEMP and as a requirement in the DCO.

Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements
northern extent of Coronation Avenue – VP-32 - View looking south-east from PRow (423/013) – VP-33 - view looking south-west from PRow (423/006) – VP-37 - view looking north from PRow (423/001)		(Application Document Reference: TR010041/APP/6.5)).			
Road users subject to adverse visual effects at: – VP-27 - View looking north-east from Howdens Glebe cottages, off West Moor Road	Operation (Year 15)	Deliver mitigation strategy as per the Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)).	Landscape Mitigation Masterplan / Landscape Management Plan / HEMP	Moderate Adverse D / P / LT	Monitoring of the growth and establishment of the planting strategy by The Applicant implemented as part of the Scheme through the HEMP, via the CEMP and as a requirement in the DCO.
Residential receptors subject to adverse visual effects at: – Longfield Cottage (R9) – Thirston New House (R34) – Causey Park Lodge (North) (R48) – Causey Park Hag (2 properties) (R50) – New Build Off Causey Park (R56) – Four Gables (R57) – The Oak Inn (R61) – New Houses Farm (R65) – Portland House (R71) – Welbeck House (2 properties) (R72) – The Old School (1 properties) (R73) – Stonebrook Cottage (4 properties) (R78) – East Fenrother (3 properties) (R79) – High Highlaws Cottage (R94) – High Highlaws (R95)	Construction	Manage construction activities: avoid unnecessary loss of vegetation outside working area and protect retained vegetation. Arrange compound so that temporary soil bunds screen views and potential light pollution.	CEMP	Moderate Adverse D / T / ST	Main contractor to identify and monitor protection measures for retained vegetation for the duration of the construction period.
Residential receptors subject to adverse visual effects at:	Construction	Manage construction activities: avoid unnecessary loss of vegetation outside working area and protect retained	CEMP	Large Adverse D / T / ST	Main contractor to identify and monitor protection measures for retained

Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements
<ul style="list-style-type: none"> – The Cottage (R35) – West Moor House (R36) – West Moorhouse (4 properties) (R37) – Joiners Cottage (R58) – The Bungalow (R59) – Bridge House (R60) – Tindale Hill (R68) – Earsdon Moor Farm (R70) – Strafford House (R93) – Capri Lodge (R96) – Warreners Barns (2 properties) (R97) – Northgate Farm (R98) – Warreners Cottages (2 properties) (R100) – Warreners House (R101) – Warreners House (2) (R102) 		vegetation. Arrange compound so that temporary soil bunds screen views and potential light pollution.			vegetation for the duration of the construction period.
Residential receptors subject to adverse visual effects at: <ul style="list-style-type: none"> – Thirston New House (R34) – Causey Park Lodge (North) (R48) – Causey Park Hag (2 properties) (R50) – New Build Off Causey Park (R56) – Four Gables (R57) – Portland House (R71) – Welbeck House (2 properties) (R72) – Stonebrook Cottage (4 properties) (R78) – East Fenrother (3 properties) (R79) – Strafford House (R93) – High Highlaws Cottage (R94) 	Operation (Year 1)	Deliver mitigation strategy as per the Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)).	Landscape Mitigation Masterplan / Landscape Management Plan / HEMP	Moderate Adverse D / P / LT	Monitoring of the growth and establishment of the planting strategy by The Applicant implemented as part of the Scheme through the HEMP, via the CEMP and as a requirement in the DCO.
Residential receptors subject to adverse visual effects at: <ul style="list-style-type: none"> – The Cottage (R35) – West Moor House (R36) 	Operation (Year 1)	Deliver mitigation strategy as per the Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES	Landscape Mitigation Masterplan / Landscape Management Plan / HEMP	Large Adverse D / P / LT	Monitoring of the growth and establishment of the planting strategy by The Applicant implemented as part of the Scheme through the HEMP, via the CEMP and as a requirement in the DCO.

Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements
<ul style="list-style-type: none"> – West Moorhouse (4 properties) (R37) – Joiners Cottage (R58) – The Bungalow (R59) – Bridge House (R60) – Tindale Hill (R68) – Earsdon Moor Farm (R70) 		(Application Document Reference: TR010041/APP/6.5)).			
<p>Residential receptors subject to adverse visual effects at:</p> <ul style="list-style-type: none"> – The Cottage (R35) – West Moor House (R36) – West Moor House (4 properties) (R37) – Joiners Cottage (R58) – The Bungalow (R59) – Tindale Hill (R68) – Earsdon Moor Farm (R70) – Portland House (R71) – Welbeck House (2 properties) (R72) – Strafford House (R93) 	Operation (Year 15)	Deliver mitigation strategy as per the Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)).	Landscape Mitigation Masterplan / Landscape Management Plan / HEMP	Moderate Adverse D / P / LT	Monitoring of the growth and establishment of the planting strategy by The Applicant implemented as part of the Scheme through the HEMP, via the CEMP and as a requirement in the DCO.
<p>Visual effects on Public Rights of Way (PRoW):</p> <ul style="list-style-type: none"> – 407/010 Footpath / Bridleway 	Construction	Manage construction activities: avoid unnecessary loss of vegetation outside working area and protect retained vegetation. Arrange compound so that temporary soil bunds screen views and potential light pollution.	CEMP	Moderate Adverse D / T / ST	N/A
<p>Visual effects on PRoW:</p> <ul style="list-style-type: none"> – 423/001 Footpath – 423/002 Footpath – 423/011 Footpath – 422/020 Footpath – 115/016 Footpath – 407/018 Footpath – 423/006 Footpath – 423/013 Footpath 	Construction	Manage construction activities: avoid unnecessary loss of vegetation outside working area and protect retained vegetation. Arrange compound so that temporary soil bunds screen views and potential light pollution.	CEMP	Large Adverse D / T / ST	Monitoring of the growth and establishment of the planting strategy by The Applicant implemented as part of the Scheme through the HEMP, via the CEMP and as a requirement in the DCO.

Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements
<ul style="list-style-type: none"> – St Oswald’s Way – Regionally Promoted Route 					
Visual effects on PRow: <ul style="list-style-type: none"> – St Oswald’s Way – Regionally Promoted Route 	Operation (Year 1)	Deliver mitigation strategy as per the Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)).	Landscape Mitigation Masterplan / Landscape Management Plan / HEMP	Moderate Adverse D / P / LT	Monitoring of the growth and establishment of the planting strategy by The Applicant implemented as part of the Scheme through the HEMP, via the CEMP and as a requirement in the DCO.
Visual effects on PRow: <ul style="list-style-type: none"> – 423/001 Footpath – 423/013 Footpath – 423/006 Footpath – 407/018 Footpath 	Operation (Year 1)	Deliver mitigation strategy as per the Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)).	Landscape Mitigation Masterplan / Landscape Management Plan / HEMP	Large Adverse D / P / LT	Monitoring of the growth and establishment of the planting strategy by The Applicant implemented as part of the Scheme through the HEMP, via the CEMP and as a requirement in the DCO.
Visual effects on PRow: <ul style="list-style-type: none"> – 423/001 Footpath – 423/006 Footpath – 423/013 Footpath 	Operation (Year 15)	Deliver mitigation strategy as per the Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)).	Landscape Mitigation Masterplan / Landscape Management Plan / HEMP	Moderate Adverse D / P / LT	Monitoring of the growth and establishment of the planting strategy by The Applicant implemented as part of the Scheme through the HEMP, via the CEMP and as a requirement in the DCO.
Commercial/Community facilities subject to adverse visual effects at: <ul style="list-style-type: none"> – Oak Inn (Public House) – Tritlington Church of England First School – Jackson J K and Sons garage 	Construction	Manage construction activities: avoid unnecessary loss of vegetation outside working area and protect retained vegetation. Arrange compound so that temporary soil bunds screen views and potential light pollution.	CEMP	Moderate Adverse D / T / ST	Main contractor to identify and monitor protection measures for retained vegetation for the duration of the construction period.
Commercial/Community facilities subject to adverse visual effects at: <ul style="list-style-type: none"> – Oak Inn (Public House) – Jackson J K and Sons garage 	Operation (Year 1)	Deliver mitigation strategy as per the Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)).	Landscape Mitigation Masterplan / Landscape Management Plan / HEMP	Moderate Adverse D / P / LT	Monitoring of the growth and establishment of the planting strategy by The Applicant implemented as part of the Scheme through the HEMP, via the CEMP and as a requirement in the DCO.

Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements
Chapter 8: Cultural Heritage					
Permanent removal or destruction of additional remains associated with findspot of Mesolithic flint	Construction	Preservation through record.	CEMP	Moderate adverse D / P / LT	N/A
Permanent removal or destruction of buried remains associated with the Chapel or Hermitage at Helm (HER 11347)	Construction	Preservation through record.	CEMP	Moderate adverse D / P / LT	N/A
Permanent removal or destruction of Cropmark of rectilinear enclosure (HER 11367)	Construction	Preservation through record.	CEMP	Unknown at present but the effect could be significant D / P / LT	N/A
Permanent removal or destruction of currently unknown below-ground archaeological remains of medium value from the Prehistoric, Roman, Early Medieval and Late Medieval date period	Construction	Preservation through record.	CEMP	Moderate adverse D / P / LT	N/A
Permanent removal or destruction of currently unknown below-ground heritage assets of high or very high value ranging from the Prehistoric to the Post-Medieval period	Construction	Preservation through record.	CEMP	Large to very large adverse D / P / LT	N/A
Temporary impacts upon the non-designated park and designated assets within Felton Park	Construction	Best practice measures are set out in the Outline CEMP (Application Document Reference: TR010041/APP/7.3) would manage working in proximity to designated assets.	N/A	Moderate Adverse D / T / ST	N/A
Temporary impacts upon the setting of Grade II Listed Longfield Cottage (NHL)	Construction	Best practice measures are set out in the Outline CEMP (Application Document Reference:	CEMP	Moderate Adverse D / T / ST	N/A

Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements
1041875) and Boundary Stones (NHL 1041876)		TR010041/APP/7.3) would manage working in proximity to designated assets			
No significant adverse or beneficial effects have been identified for the operational phase of Part A.					
Chapter 9: Biodiversity					
Loss of 0.27 ha of ancient woodland associated with the River Coquet and Coquet Valley Woodlands Site of Special Scientific Interest (encompassing Dukes Bank Wood ancient woodland)	Construction	Woodland planting at a 12:1 ratio and associated measures detailed in the Ancient Woodland Strategy (Appendix 9.21, Volume 7 of this ES (Application Document Reference: TR010041/APP/6.7)) . Total of 8.16 ha when combined with below.	CEMP / Ancient Woodland Strategy	Very Large Adverse D / P / LT	Preliminary monitoring and management of the Woodland Creation Area over a 50-year period are presented in the Ancient Woodland Strategy (Appendix 9.21, Volume 7 of this ES) . The Strategy would be finalised at detailed design.
Loss of 0.41 ha of woodland within the Coquet River Felton Park Local Wildlife Site, which has been treated as ancient woodland	Construction	Woodland planting at a ratio of 12:1 and associated measures detailed in the Ancient Woodland Strategy (Appendix 9.21, Volume 7 of this ES (Application Document Reference: TR010041/APP/6.7)) . Total of 8.16 ha when combined with above.	CEMP / Ancient Woodland Strategy	Moderate Adverse D / P / LT	Preliminary monitoring and management of the Woodland Creation Area over a 50-year period are presented in the Ancient Woodland Strategy (Appendix 9.21, Volume 7 of this ES) . The Strategy would be finalised at detailed design.
Provision of more broadleaved semi-natural woodland habitat in comparison to woodland lost; 0.38 ha of woodland lost to 25.3 ha created.	Construction	Deliver mitigation strategy as per the Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)) .	Landscape Mitigation Masterplan / Landscape Management Plan / HEMP	Moderate Beneficial D / P / LT	Monitoring of the growth and establishment of the planting strategy by the Applicant implemented as part of the Scheme through the HEMP, via the CEMP, and as a requirement in the DCO.
Provision of more neutral grassland – semi-improved habitat in comparison to that lost; 3.02 ha lost to 40.64 ha created	Construction	Deliver mitigation strategy as per the Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)) .	Landscape Mitigation Masterplan / Landscape Management Plan / HEMP	Moderate Beneficial D / P / LT	Monitoring of the growth and establishment of the planting strategy by the Applicant implemented as part of the Scheme through the HEMP, via the CEMP, and as a requirement in the DCO.
No significant adverse or beneficial effects have been identified for the operational phase of Part A.					

Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements
Chapter 10: Road Drainage and the Water Environment					
No significant adverse or beneficial effects have been identified for the construction or operational phase of Part A for Road Drainage and the Water Environment.					
Chapter 11: Geology and Soils					
Agricultural land take of approximately 9 ha of Best and Most Versatile land	Construction	N/A	N/A	Moderate Adverse D / P / LT	N/A
Agricultural land take of approximately 73 ha of Subgrade 3b	Construction	N/A	N/A	Moderate Adverse D / P / LT	N/A
The overall assessment of agricultural land loss, including 100 ha of moderate to poor agricultural quality (Subgrade 3b (73 ha) and Grade 4 (27 ha)) and approximately 9 ha of best and most versatile (BMV) land (Grade 2 (<1 ha) and Subgrade 3a (8 ha)). For the purposes of the assessment the areas not surveyed (<0.1 ha) have been included as BMV.	Construction	N/A	N/A	Slight to Moderate Adverse D / P / LT	N/A
No significant adverse or beneficial effects have been identified for the operational phase of Part A.					
Chapter 12: Population and Human Health					
Views from the road during construction	Construction	N/A	N/A	Moderate Adverse D / T / ST	N/A
PRoWs closed or diverted during the construction period: <ul style="list-style-type: none"> - 407/013 - 407/010 - 407/018 - 423/001 	Construction	Temporary diversions to ensure that some routes remain open and provide safe access for Walking Cyclists and Horse-riders (WCH). Consultation regarding the diversions with affected individuals, groups, and	Construction Traffic Management Plan (CTMP) (Application Document Reference: TR010041/APP/7.4) CEMP	Moderate Adverse D / T-P / ST-LT	N/A

Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements
<ul style="list-style-type: none"> - 423/006 - 423/007 - 423/013 - 422/002 - 422/020 - 115/009 - 115/013 - 115/008 - 115/016 - 422/011 		<p>Northumberland County Council (NCC).</p> <p>A PRoW Management Plan would be produced by the main contractor</p>			
Users of PRoW 423/001	Operation	Permanent diversions to ensure that some routes remain open and provide safe access for WCH.	CTMP CEMP	Moderate Adverse D / P / LT	N/A
Demolition of North Gate House	Construction	No mitigation available for loss of property. However, compensation has been agreed as part of the Scheme with the occupiers of North Gate House.	N/A	Moderate Adverse D / P / LT	N/A
Recreational users of the River Coquet	Construction	<p>Inform the public and community groups of the nature, timing and duration construction activities.</p> <p>Directions at the appropriate places would be provided for alternative access points or routes.</p>	CEMP	Moderate Adverse D / T / ST	N/A
Impacts on agricultural land holdings – Clarehugh	Construction	<p>Engage in early consultation with landowners to maintain access and minimise the impact on farm and diversified rural businesses during construction.</p> <p>Returning temporarily required land to the landowner upon completion including reinstatement of boundary features.</p> <p>Pursuant to the Compensation Code, compensation would be agreed as part of Part A with the relevant parties whose land would be temporarily and</p>	<p>CTMP</p> <p>CEMP</p> <p>Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 (Application Document Reference: TR010041/APP/6.5)).</p>	Moderate Adverse D / T / ST	Monitoring of the growth and establishment of the planting strategy by the Applicant implemented as part of the Scheme through the HEMP, via the CEMP, and as a requirement in the DCO

Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements
		permanently acquired or severed to accommodate Part A.			
Impacts on agricultural land holdings – Hemelspeth Farm	Construction	<p>Any temporarily required land would be reinstated to its original condition following the completion of construction.</p> <p>Pursuant to the Compensation Code, compensation would be agreed as part of Part A with the relevant parties whose land would be temporarily and permanently acquired or severed to accommodate Part A.</p>	CEMP	Moderate Adverse D / T / ST	N/A
Impacts on agricultural land holdings – Causey Park	Construction	<p>Access provision or cattle handling facilities to land severed to the east of Part A.</p> <p>Access provision during construction for farm and all additional enterprises and commercial lets.</p> <p>Accommodation works have been included in the Landscape Mitigation Masterplan to reduce impact to New Houses farmstead.</p> <p>Pursuant to the Compensation Code, compensation would be agreed as part of Part A with the relevant parties whose land would be temporarily and permanently acquired or severed to accommodate Part A.</p>	<p>CTMP</p> <p>Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)).</p>	Moderate Adverse D / T / ST	Monitoring of the growth and establishment of the planting strategy by the Applicant implemented as part of the Scheme through the HEMP, via the CEMP, and as a requirement in the DCO
Impacts on agricultural land holdings – ‘Farm C’	Construction	<p>Any temporarily required land would be reinstated to its original condition following the completion of construction.</p> <p>Pursuant to the Compensation Code, compensation would be agreed as part of Part A with the relevant parties whose land would be temporarily and permanently acquired or severed to accommodate Part A.</p>	CEMP	Moderate Adverse D / T / ST	N/A

Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements
Impacts on agricultural land holdings – Clarehugh	Operation	<p>Deliver mitigation strategy as per the Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)).</p> <p>Pursuant to the Compensation Code, compensation would be agreed as part of Part A with the relevant parties whose land would be permanently acquired or severed to accommodate Part A.</p>	Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)).	Moderate Adverse D / P / LT	Monitoring of the growth and establishment of the planting strategy by the Applicant implemented as part of the Scheme through the HEMP, via the CEMP, and as a requirement in the DCO
Impacts on agricultural land holdings – Hemelspeth Farm	Operation	Pursuant to the Compensation Code, compensation would be agreed as part of Part A with the relevant parties whose land would be permanently acquired or severed to accommodate Part A.	CEMP	Moderate Adverse D / P / LT	N/A
Impacts on agricultural land holdings – Causey Park	Operation	<p>Access provision or cattle handling facilities to land severed to the east of the Scheme.</p> <p>Access provision once operational for farm and all additional enterprises and commercial lets.</p> <p>Accommodation works have been included in the Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)) to reduce impact to New Houses farmstead.</p> <p>Pursuant to the Compensation Code, compensation would be agreed as part of Part A with the relevant parties whose land would be permanently acquired or severed to accommodate Part A.</p>	<p>Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)).</p> <p>CEMP</p>	Moderate Adverse D / P / LT	Monitoring of the growth and establishment of the planting strategy by the Applicant implemented as part of the Scheme through the HEMP, via the CEMP, and as a requirement in the DCO
Impacts on agricultural land holdings – ‘Farm C’	Operation	Pursuant to the Compensation Code, compensation would be agreed as part	CEMP	Moderate Adverse	N/A

Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements
		of Part A with the relevant parties whose land would be permanently acquired or severed to accommodate Part A.		D / P / LT	
Updated DMRB Guidance					
Demolition of North Gate House	Construction	No mitigation available for loss of property. Compensation has been agreed as part of the Scheme with the occupiers of North Gate House, however this has not been considered as part of this assessment.	N/A	Large Adverse D / P / LT (Overall conclusions of the assessment of significance would remain the same as when compared to former DMRB guidance)	N/A
Chapter 13: Material Resources					
No significant adverse or beneficial effects have been identified for the construction or operational phase of Part A for Material Resources					
Chapter 14: Climate					
No significant adverse or beneficial effects have been identified for the construction or operational phase of Part A for Climate.					
Chapter 15: Combined Effects for Part A					
Combined effects upon residential receptors	Construction	Mitigation measures relating to potential effects on residents are set out in Technical Chapters 5 to 13 and 15 for Part A, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3)	CEMP	Moderate to Large Adverse D-ID / T-P / ST-LT	Monitoring measures relating to potential effects on residents are set out in the respective Technical Chapters 5 to 13 and 15, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3) .
Combined effects upon areas of amenity surrounding Part A	Construction	Mitigation measures relating to potential effects on amenity areas are	CEMP	Moderate Adverse	Monitoring measures relating to potential effects on amenity areas are set out in

Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements
		set out in Technical Chapters 5 to 13 and 15 for Part A, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3)		D / T- P / ST-LT	the respective Technical Chapters 5 to 13 and 15, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3) .
Combined effects upon road users	Construction	Mitigation measures relating to potential effects on road users are set out in Technical Chapters 5 to 13 and 15 for Part A, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3)	CEMP	Moderate to Large Adverse D / T / ST	Monitoring measures relating to potential effects on road users are set out in the respective Technical Chapters 5 to 13 and 15, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3) .
Combined effects upon users of footpaths and PRoW	Construction	Mitigation measures relating to potential effects on users of footpaths and PRoW are set out in Technical Chapters 5 to 13 and 15 for Part A, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3)	CEMP	Moderate to Large Adverse D / T-P / ST-LT	Monitoring measures relating to potential effects on users of footpaths and PRoW are set out in the respective Technical Chapters 5 to 13 and 15, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3) .
Combined effects upon statutory and non - statutory designated ecological sites/local biodiversity	Construction	Mitigation measures relating to potential effects on ecological sites are set out in Technical Chapters 5 to 13 and 15 for Part A, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3) Deliver mitigation strategy as per the Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES	CEMP / Landscape Mitigation Plan / Landscape Management Plan / HEMP	Minor adverse to Moderate Beneficial D-ID / T-P / ST-LT	Monitoring measures relating to potential effects on ecological sites are set out in the respective Technical Chapters 5 to 13 and 15, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3) .

Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements
		(Application Document Reference: TR010041/APP/6.5)).			
Combined effects upon agricultural land and associated rural enterprises	Construction	Mitigation measures relating to potential effects on agricultural land and associated rural enterprises are set out in Technical Chapters 5 to 13 and 15 for Part A, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3)	CEMP	Slight to Moderate Adverse D / T-P / ST-LT	Monitoring measures relating to potential effects on agricultural land and associated rural enterprises are set out in the respective Technical Chapters 5 to 13 and 15, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3).
Combined effects upon Tritlington Church of England Aided First School	Construction	Mitigation measures relating to potential effects on Tritlington Church of England Aided First School are set out in the Technical Chapters 5 to 13 and 15 for Part A, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3)	CEMP	Moderate Adverse D / T / ST	Monitoring measures relating to potential effects on Tritlington Church of England Aided First School are set out in the respective Technical Chapters 5 to 13 and 15, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3).
Combined effects upon residential receptors	Operation	Mitigation measures relating to potential effects on residents are set out in the Technical Chapters 5 to 13 and 15 for Part A, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3)	CEMP / Landscape Mitigation Plan / Landscape Management Plan / HEMP	Major Beneficial to Major Adverse D / P / LT	Monitoring measures relating to potential effects on residents are set out in the respective Technical Chapters 5 to 13 and 15, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3).
Combined effects upon users of footpaths and PRoW	Operation	Mitigation measures relating to potential effects on users of footpaths and PRoW are set out in Technical Chapters 5 to 13 and 15 for Part A, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) and presented in the Outline CEMP (Application	CEMP / Landscape Mitigation Plan / Landscape Management Plan / HEMP	Moderate Adverse D / P / LT	Monitoring measures relating to potential effects on users of footpaths and PRoW are set out in the respective Technical Chapters 5 to 13 and 15, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) and presented in the Outline CEMP

Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements
		Document Reference: TR010041/APP/7.3)			(Application Document Reference: TR010041/APP/7.3).

Table 17-3 – Part B: Summary of Significant Effects (refer to Volume 3 of this ES (Application Document Reference: TR010041/APP/6.3))

Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Residual Environmental Effect	Monitoring Requirements
Chapter 5: Air Quality					
No significant adverse or beneficial effects have been identified for the construction or operational phase of Part B.					
Chapter 6: Noise and Vibration					
No significant adverse or beneficial effects have been identified for the construction phase of Part B.					
Decrease in noise levels at five dwellings.	Operation	Application of Low Noise Road Surfacing along the full length of the Scheme (excluding bridge decks).	CEMP	Moderate Beneficial D / P / LT	N/A
Decrease in noise levels at one other sensitive receptor (Patterson Cottage Boarding Kennels)	Operation	Application of Low Noise Road Surfacing along the full length of the Scheme (excluding bridge decks).	CEMP	Major Beneficial D / P / LT	N/A
Updated DMRB Guidance					
Decrease in noise levels at one dwelling.	Operation	Application of Low Noise Road Surfacing along the full length of the Scheme (excluding bridge decks).	CEMP	Major Beneficial D / P / LT (Overall conclusions of the assessment of significance would remain the same as when compared to former DMRB guidance)	N/A
Chapter 7: Landscape and Visual					
Landscape character subject to adverse effects (refer to Appendix 7.3: Landscape Effects Schedule, Volume 8 of this ES	Construction	Manage construction activities: avoid unnecessary loss of vegetation outside working area and protect retained	CEMP	Moderate Adverse D / T / ST	Main contractor to identify and monitor protection measures for retained vegetation for the duration of the construction period.

Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Residual Environmental Effect	Monitoring Requirements
<p>(Application Document Reference: TR010041/APP/6.8):</p> <ul style="list-style-type: none"> – 8c Charlton Ridge Landscape Character Area (LCA) – 3c Rock LCA – 6 North East Farmed Coastal Plan LCA 		<p>vegetation and soil quality for further planting. Arrange compound so that temporary soil bunds screen views and potential light pollution.</p>			
<p>Residential receptors subject to adverse visual effects (refer to Figure 7.2: Visual Receptors Plan, Volume 6 of this ES (Application Document Reference: TR010041/APP/6.6)):</p> <ul style="list-style-type: none"> – People living in properties with north east facing views (Receptors 1 & 2) – People living in properties with western facing views (Receptor 9) – People living in properties with filtered western facing views (Receptors 11 & 14) – People living in properties with close proximity views (Receptor 12) – People living in properties with close proximity south western facing views (Receptors 15 & 16) – People living in properties with south eastern facing views (Receptor 17). 	<p>Construction</p>	<p>Manage construction activities: avoid unnecessary loss of vegetation outside working area and protect retained vegetation. Arrange compound so that temporary soil bunds screen views and potential light pollution.</p>	<p>CEMP</p>	<p>Moderate Adverse D / T / ST</p>	<p>Main contractor to identify and monitor protection measures for retained vegetation for the duration of the construction period.</p>
<p>Residential receptors subject to adverse visual effects (refer to Figure 7.2: Visual Receptors Plan, Volume 6 of this ES (Application Document Reference: TR010041/APP/6.6)):</p> <ul style="list-style-type: none"> – People living in properties with eastern facing views (Receptors 3, 4, 5 & 8) – People living in properties with close proximity eastern facing views (Receptors 6, 7 & 10) 	<p>Construction</p>	<p>Manage construction activities: avoid unnecessary loss of vegetation outside working area and protect retained vegetation. Arrange compound so that temporary soil bunds screen views and potential light pollution.</p>	<p>CEMP</p>	<p>Large Adverse D / T / ST</p>	<p>Main contractor to identify and monitor protection measures for retained vegetation for the duration of the construction period.</p>

Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Residual Environmental Effect	Monitoring Requirements
<ul style="list-style-type: none"> – People living in properties with close proximity western facing views (Receptor 13) 					
<p>Recreational receptors travelling along PRow subject to adverse visual effects (refer to Figure 7.2: Visual Receptors Plan, Volume 6 of this ES (Application Document Reference: TR010041/APP/6.6)):</p> <ul style="list-style-type: none"> – People travelling along Public Right of Way (PRow) 112/008 and PRow 112/009 (Receptors 25 & 26) – People travelling along PRow 110/013 (Receptor 33) – People travelling along PRow 129/006 (Receptor 36) – People travelling along PRow 112/045 (Receptor 56) 	Construction	Manage construction activities: avoid unnecessary loss of vegetation outside working area and protect retained vegetation. Arrange compound so that temporary soil bunds screen views and potential light pollution.	CEMP	Moderate Adverse D / T / ST	Main contractor to identify and monitor protection measures for retained vegetation for the duration of the construction period.
<p>Recreational receptors travelling along PRow subject to adverse visual effects (refer to Figure 7.2: Visual Receptors Plan, Volume 6 of this ES (Application Document Reference: TR010041/APP/6.6)):</p> <ul style="list-style-type: none"> – People travelling along PRow 129/004 (Receptor 27) – People travelling along PRow 129/005 (Receptor 28) – People travelling along PRow 141/013 and PRow 141/002 (Receptors 42 & 43) 	Construction	Manage construction activities: avoid unnecessary loss of vegetation outside working area and protect retained vegetation. Arrange compound so that temporary soil bunds screen views and potential light pollution.	CEMP	Large Adverse D / T / ST	Main contractor to identify and monitor protection measures for retained vegetation for the duration of the construction period.
<p>Road users subject to adverse visual effects (refer to Figure 7.2: Visual Receptors Plan, Volume 6 of this ES (Application Document Reference: TR010041/APP/6.6)):</p> <ul style="list-style-type: none"> – People travelling along main roads (Receptor 37) 	Construction	Manage construction activities: avoid unnecessary loss of vegetation outside working area and protect retained vegetation. Arrange compound so that temporary soil bunds screen views and potential light pollution.	CEMP	Moderate Adverse D / T / ST	Main contractor to identify and monitor protection measures for retained vegetation for the duration of the construction period.

Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Residual Environmental Effect	Monitoring Requirements
<p>Residential receptors subject to adverse visual effects (refer to Figure 7.2: Visual Receptors Plan, Volume 6 of this ES (Application Document Reference: TR010041/APP/6.6)):</p> <ul style="list-style-type: none"> – People living in properties with north east facing views (Receptors 1 & 2) – People living in properties with western facing views (Receptor 9) – People living in properties with filtered western facing views (Receptor 11 & 14) – People living in properties with close proximity views (Receptor 12) – People living in properties with close proximity western facing views (Receptor 13) – People living in properties with close proximity south western facing views (Receptors 15 & 16) 	<p>Operation (Year 1)</p>	<p>Deliver mitigation strategy as per the Landscape Mitigation Plan (Figure 7.10, Volume 6 of this ES (Application Document Reference: TR010041/APP/6.6)).</p>	<p>Landscape Mitigation Plan / Landscape Management Plan / HEMP</p>	<p>Moderate Adverse D / P / LT</p>	<p>Monitoring of the growth and establishment of the planting strategy by the Applicant implemented as part of the Scheme through the HEMP, via the CEMP, and as a requirement in the DCO.</p>
<p>Residential receptors subject to adverse visual effects (refer to Figure 7.2: Visual Receptors Plan, Volume 6 of this ES (Application Document Reference: TR010041/APP/6.6)):</p> <ul style="list-style-type: none"> – People living in properties with eastern facing views (Receptors 3, 4, 5 & 8) – People living in properties with close proximity eastern facing views (Receptors 6, 7 & 10) 	<p>Operation (Year 1)</p>	<p>Deliver mitigation strategy as per the Landscape Mitigation Plan (Figure 7.10, Volume 6 of this ES (Application Document Reference: TR010041/APP/6.6)).</p>	<p>Landscape Mitigation Plan / Landscape Management Plan / HEMP</p>	<p>Large Adverse D / P / LT</p>	<p>Monitoring of the growth and establishment of the planting strategy by the Applicant implemented as part of the Scheme through the HEMP, via the CEMP, and as a requirement in the DCO.</p>
<p>Recreational receptors travelling along PRoW subject to adverse visual effects (refer to Figure 7.2: Visual Receptors Plan, Volume 6 of this ES (Application Document Reference: TR010041/APP/6.6)):</p>	<p>Operation (Year 1)</p>	<p>Deliver mitigation strategy as per the Landscape Mitigation Plan (Figure 7.10, Volume 6 of this ES (Application Document Reference: TR010041/APP/6.6)).</p>	<p>Landscape Mitigation Plan / Landscape Management Plan / HEMP</p>	<p>Moderate Adverse D / P / ST</p>	<p>Monitoring of the growth and establishment of the planting strategy by the Applicant implemented as part of the Scheme through the HEMP, via the CEMP, and as a requirement in the DCO.</p>

Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Residual Environmental Effect	Monitoring Requirements
<ul style="list-style-type: none"> – People travelling along PRoW 112/008 and PRoW 112/009 (Receptors 25 & 26) – People travelling along PRoW 129/004 (Receptor 27) – People travelling along PRoW 129/005 (Receptor 28) 					
<p>Residential receptors subject to adverse visual effects (refer to Figure 7.2: Visual Receptors Plan, Volume 6 of this ES (Application Document Reference: TR010041/APP/6.6)):</p> <ul style="list-style-type: none"> – People living in properties with eastern facing views (Receptors 3, 4, 5 & 8) – People living in properties with close proximity eastern facing views (Receptors 6, 7 & 10) 	Operation (Year 15)	Deliver mitigation strategy as per the Landscape Mitigation Plan (Figure 7.10, Volume 6 of this ES (Application Document Reference: TR010041/APP/6.6)).	Landscape Mitigation Plan / Landscape Management Plan / HEMP	Moderate Adverse D / P / LT	Monitoring of the growth and establishment of the planting strategy by the Applicant implemented as part of the Scheme through the HEMP, via the CEMP, and as a requirement in the DCO.
Chapter 8: Cultural Heritage					
<p>Permanent and irreversible loss of below ground heritage assets:</p> <ul style="list-style-type: none"> – Bronze Age cist burials (HER 5033) – Additional remains associated with findspot of two Neolithic or Bronze Age flint flakes (HER 5062) – Earthworks east of Heckley House (WSP 016) <p>Potential archaeological remains dating from Prehistoric, Medieval, Post-Medieval, Industrial, Modern date, Early Medieval and Late Medieval periods of medium value.</p>	Construction	Preservation through record.	CEMP	Moderate Adverse D / P / LT	N/A
<p>Permanent and irreversible loss of unknown below ground heritage asset of very high importance ranging from the Prehistoric to the Post-Medieval period</p>	Construction	Preservation through record.	CEMP	Very Large Adverse D / P / LT	N/A

Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Residual Environmental Effect	Monitoring Requirements
Permanent and irreversible loss of unknown below ground heritage assets of high importance ranging from the Prehistoric to the Post-Medieval period.	Construction	Preservation through record.	CEMP	Large Adverse D / P / LT	N/A
Change in setting of heritage assets: <ul style="list-style-type: none"> – Grade II Listed Building Heckley House (NHLE 1042044) – Grade II Listed Building Dovecote to the east of Heckley Fence Farmhouse with Attached Wall (NHLE 1371059) – Grade II Listed Building Patterson Cottage (NHLE 1371080) – Grade II Listed Building West Linkhall Farmhouse (NHLE 1298856) Scheduled Monument Camp at West Linkhall (NHLE 1006500)	Construction	Best practice measures are set out in the Outline CEMP (Application Document Reference: TR010041/APP/7.3) would manage working in proximity to designated assets.	CEMP	Moderate Adverse D / T / ST	N/A
Change in setting of the Grade II Listed Building Dovecote to the east of Heckley Fence Farmhouse with Attached Wall (NHLE 1371059)	Operation	Deliver mitigation strategy as per the Landscape Mitigation Plan (Figure 7.10, Volume 6 of this ES (Application Document Reference: TR010041/APP/6.6)).	Landscape Mitigation Plan / Landscape Management Plan / HEMP	Moderate Adverse D / P / LT	Monitoring of the growth and establishment of the planting strategy by the Applicant implemented as part of the Scheme through the HEMP, via the CEMP, and as a requirement in the DCO.
Chapter 9: Biodiversity					
Reinstatement/creation of compensatory woodland at a quantity significantly greater than that lost (10.14 ha created in comparison to 0.69 ha lost)	Construction	Best practice measures are set out in the Outline CEMP (Application Document Reference: TR010041/APP/7.3) . Deliver mitigation strategy as per the Landscape Mitigation Plan (Figure 7.10, Volume 6 of this ES (Application Document Reference: TR010041/APP/6.6)).	CEMP Landscape Mitigation Masterplan / Landscape Management Plan / HEMP	Moderate Beneficial D / P / LT	Monitoring of the growth and establishment of the planting strategy by the Applicant implemented as part of the Scheme through the HEMP, via the CEMP, and as a requirement in the DCO.
Permanent loss of watercourse habitat for fish during the extension and realignment of	Construction	Best practice measures are set out in the Outline CEMP (Application Document Reference: TR010041/APP/7.3) .	CEMP	Moderate Adverse D / P / LT	N/A

Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Residual Environmental Effect	Monitoring Requirements
culverts and during construction of new culverts.		Deliver mitigation strategy as per the Landscape Mitigation Plan (Figure 7.10, Volume 6 of this ES (Application Document Reference: TR010041/APP/6.6).	Landscape Mitigation Masterplan / Landscape Management Plan / HEMP		
No significant adverse or beneficial effects have been identified for the operational phase of Part B.					
Chapter 10: Road Drainage and the Water Environment					
No significant adverse or beneficial effects have been identified for the construction or operational phase of Part B.					
Chapter 11: Geology and Soils					
Agricultural land take of approximately 26 ha of Best and Most Versatile (BMV) land	Construction	N/A	N/A	Large Adverse D / P / LT	N/A
The overall assessment of agricultural land loss, including approximately 26 ha of BMV land, approximately 16 ha of moderate quality land and approximately 1 ha of poor quality land. For the purposes of the assessment the areas not surveyed have been included as BMV.	Construction	N/A	N/A	Neutral to Large Adverse D / P / LT	N/A
Updated DMRB Guidance					
Permanent loss of Grade 3b agricultural land	Construction	N/A	N/A	Moderate Adverse D / P / LT (Overall conclusions of the assessment of significance for agricultural land would remain the same when compared to former DMRB guidance)	N/A

Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Residual Environmental Effect	Monitoring Requirements
Chapter 12: Population and Human Health					
<p>PRoWs closed or diverted during the construction period:</p> <ul style="list-style-type: none"> - 110/004 - 129/014 - 110/013 - 129/022 - 110/019 - 110/010 - 129/021 - 110/003 - 129/009 - 129/024 - 129/004 	Construction	<p>Diversions to ensure that some routes remain open and provide safe access for WCH.</p> <p>Consultation regarding the diversions with affected individuals, groups, and Northumberland County Council (NCC).</p> <p>A PRoW Management Plan would be produced by the main contractor</p>	<p>CTMP</p> <p>CEMP</p>	<p>Moderate Adverse</p> <p>D / T-P / ST-LT</p>	N/A
Removal of three bus stops at Charlton Mires and along the B5341	Construction	Temporary bus stops to be provided. The exact locations of these bus stops would be finalised prior to construction in discussions with the service provider and NCC as the Highway Authority.	<p>CTMP</p> <p>CEMP</p>	<p>Potential significant effect (subject to journey origin)</p> <p>D / T / ST</p>	N/A
<p>PRoWs permanently diverted or amended during the operation period:</p> <ul style="list-style-type: none"> - 110/004 - 129/014 - 110/013 - 129/022 - 129/013 - 110/019 - 110/010 - 129/021 - 110/003 - 129/009 - 129/024 - 129/004 	Operation	Permanent diversions to ensure that some routes remain open and provide safe access for WCH.	<p>CTMP</p> <p>CEMP</p>	<p>Moderate Adverse</p> <p>D / P / LT</p>	N/A
Removal of three bus stops at Charlton Mires and along the B5341	Operation	Permanent bus stops to be provided.	CEMP	<p>Potential significant effect (subject to journey origin)</p>	N/A

Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Residual Environmental Effect	Monitoring Requirements
				D / T / ST	
Relief from existing severance through provision of grade separated WCH facilities	Operation	N/A	N/A	Substantial D / P / LT	N/A
Temporary and permanent land take and loss of residence and farm buildings from Charlton Mires Farm	Construction	The Applicant, alongside the District Valuer are currently discussing suitable compensation for temporary/permanent land take required for the scheme with the occupiers of Charlton Mires Farm.	N/A	Large Adverse D / P / LT	N/A
Permanent land take and loss of residence from East Cottage	Construction	The Applicant, alongside the District Valuer are currently discussing suitable compensation for temporary/permanent land take required for the scheme with the occupiers of East Cottage.	N/A	Large Adverse D / P / LT	N/A
Impacts on agricultural land holdings - Charlton Mires Farm	Construction	Any temporarily required land would be reinstated to its original condition following the completion of construction. Land and surface drainage affected by the construction works would be reinstated and land restored to a functional state. Appropriate access to the affected fields would be provided where required and any farm boundaries would be reinstated to maintain the boundary and restore landscape and ecology features. Pursuant to the Compensation Code, compensation would be agreed as part of Part B with the relevant parties whose land would be temporarily and permanently acquired or severed to accommodate Part B	CEMP	Large Adverse D / T-P / ST- LT	N/A
Impacts on agricultural land holdings - East Cottage	Construction	Any temporarily required land would be reinstated to its original condition following the completion of construction.	CEMP	Very Large Adverse D / T-P / ST- LT	N/A

Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Residual Environmental Effect	Monitoring Requirements
		<p>Land and surface drainage affected by the construction works would be reinstated and land restored to a functional state.</p> <p>Appropriate access to the affected fields would be provided where required and any farm boundaries would be reinstated to maintain the boundary and restore landscape and ecology features.</p> <p>Pursuant to the Compensation Code, compensation would be agreed as part of Part B with the relevant parties whose land would be temporarily and permanently acquired or severed to accommodate Part B</p>			
Impacts on agricultural land holdings - West Farm	Construction	<p>Any temporarily required land would be reinstated to its original condition following the completion of construction.</p> <p>Land and surface drainage affected by the construction works would be reinstated and land restored to a functional state.</p> <p>Appropriate access to the affected fields would be provided where required and any farm boundaries would be reinstated to maintain the boundary and restore landscape and ecology features.</p> <p>Pursuant to the Compensation Code, compensation would be agreed as part of Part B with the relevant parties whose land would be temporarily and permanently acquired or severed to accommodate Part B</p>	CEMP	Large Adverse D / T / ST	N/A
Impacts on agricultural land holdings - Charlton Mires Farm	Operation	<p>Appropriate access to the affected fields would be provided where required.</p> <p>Pursuant to the Compensation Code, compensation would be agreed as part of Part B with the relevant parties whose land would be permanently acquired or severed to accommodate Part B</p>	CEMP	Large Adverse D / P / LT	N/A
Impacts on agricultural land holdings - East Cottage	Operation	<p>Appropriate access to the affected fields would be provided where required.</p>	CEMP	Very Large Adverse	N/A

Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Residual Environmental Effect	Monitoring Requirements
		Pursuant to the Compensation Code, compensation would be agreed as part of Part B with the relevant parties whose land would be permanently acquired or severed to accommodate Part B		D / P / LT	
Chapter 13: Material Resources					
No significant adverse or beneficial effects have been identified for the construction or operational phase of Part B.					
Chapter 14: Climate					
No significant adverse or beneficial effects have been identified for the construction or operational phase of Part B.					
Chapter 15: Combined Effects for Part B					
Combined effects upon residents	Construction	Mitigation measures relating to potential effects on residents are set out in the respective Technical Chapters 5 to 13 and 15, Volume 3 of this ES (Application Document Reference: TR010041/APP/6.3) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3) .	CEMP	Large Adverse D-ID / T-P / ST-LT	Monitoring measures relating to potential effects on residents are set out in the respective Technical Chapters 5 to 13 and 15, Volume 3 of this ES (Application Document Reference: TR010041/APP/6.3) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3) .
Combined effects on road users	Construction	Mitigation measures relating to potential effects on road users are set out in the respective Technical Chapters 5 to 13 and 15, Volume 3 of this ES (Application Document Reference: TR010041/APP/6.3) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3) .	CEMP	Moderate Adverse D / T / ST	Monitoring measures relating to potential effects on road users are set out in the respective Technical Chapters 5 to 13 and 15, Volume 3 of this ES (Application Document Reference: TR010041/APP/6.3) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3) .
Combined effects upon users of PRoW (WCH)	Construction	Mitigation measures relating to potential effects on PRoW users are set out in the respective Technical Chapters 5 to 13 and 15, Volume 3 of this ES (Application Document Reference: TR010041/APP/6.3) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3) .	CEMP	Large Adverse D / T-P / ST-LT	Monitoring measures relating to potential effects on PRoW users are set out in the respective Technical Chapters 5 to 13 and 15, Volume 3 of this ES (Application Document Reference: TR010041/APP/6.3) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3) .

Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Residual Environmental Effect	Monitoring Requirements
Combined effects upon statutory and non-statutory designated ecological sites/local biodiversity	Construction	Mitigation measures relating to potential effects on PRoW users are set out in the respective Technical Chapters 5 to 13 and 15, Volume 3 of this ES (Application Document Reference: TR010041/APP/6.3) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3) . Deliver mitigation strategy as per the Landscape Mitigation Plan (Figure 7.10, Volume 6 of this ES (Application Document Reference: TR010041/APP/6.6)).	CEMP / Landscape Mitigation Plan / Landscape Management Plan / HEMP	Moderate Adverse to Moderate Beneficial D-ID / T-P / ST-LT	Monitoring measures relating to potential effects on PRoW users are set out in the respective Technical Chapters 5 to 13 and 15, Volume 3 of this ES (Application Document Reference: TR010041/APP/6.3) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3) .
Combined effects upon agricultural land and associated rural enterprises	Construction	Mitigation measures relating to potential effects on agricultural land and rural enterprises are set out in the respective Technical Chapters 5 to 13 and 15, Volume 3 of this ES (Application Document Reference: TR010041/APP/6.3) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3) .	CEMP	Very Large Adverse D / T-P / ST-LT	Monitoring measures relating to potential effects on agricultural land and rural enterprises are set out in the respective Technical Chapters 5 to 13 and 15, Volume 3 of this ES (Application Document Reference: TR010041/APP/6.3) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3) .
Combined effects upon residential receptors	Operation	Mitigation measures relating to potential effects on residential properties are set out in the respective Technical Chapters 5 to 13 and 15, Volume 3 of this ES (Application Document Reference: TR010041/APP/6.3) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3) .	CEMP / Landscape Mitigation Plan / Landscape Management Plan / HEMP	Major Beneficial to Moderate Adverse D / P / LT	Monitoring measures relating to potential effects on residential properties are set out in the respective Technical Chapters 5 to 13 and 15, Volume 3 of this ES (Application Document Reference: TR010041/APP/6.3) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3) .
Combined effects upon users of PRoW (WCH)	Operation	Mitigation measures relating to potential effects on PRoW users are set out in the respective Technical Chapters 5 to 13 and 15, Volume 3 of this ES (Application Document Reference: TR010041/APP/6.3) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3) .	CEMP / Landscape Mitigation Plan / Landscape Management Plan / HEMP	Slight Beneficial to Moderate Adverse D / P / LT	Monitoring measures relating to potential effects on PRoW users are set out in the respective Technical Chapters 5 to 13 and 15, Volume 3 of this ES (Application Document Reference: TR010041/APP/6.3) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3) .

Table 17-4 – Cumulative Assessment: Summary of Significant Effects (refer to Chapter 16: Assessment of Cumulative Effects, Volume 4 of this ES (Application Document Reference: TR010041/APP/6.4))

Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Residual Environmental Effect	Monitoring Requirements
WITHIN TOPIC COMBINED EFFECTS FOR THE SCHEME					
Air Quality					
No significant adverse or beneficial effects have been identified for the construction or operational phase of the Scheme.					
Noise and Vibration					
Decrease in noise levels at 13 dwellings and three other sensitive receptors (Tritlington Church of England School and two Oakwood Holiday Cottages) within Scheme Study Area: Part A	Operational	Application of Low Noise Road Surfacing and noise barriers	CEMP	Major and Moderate Beneficial D / P / LT	N/A
Increase in noise levels at three dwellings within Scheme Study Area: Part A	Operational	Application of Low Noise Road Surfacing and noise barriers	CEMP	Major and Moderate Beneficial D / P / LT	N/A
Decrease in noise levels at three dwellings and one other sensitive receptor (Patterson's Cottage Boarding Kennels) within Scheme Study Area: Part B	Operational	Application of Low Noise Road Surfacing	CEMP	Major and Moderate Beneficial D / P / LT	N/A
Decrease in noise levels along seven road links outside the Scheme Study Area: Part A and Scheme Study Area: Part B	Operational	N/A	N/A	Major and Moderate Beneficial D / P / LT	N/A
Updated DMRB Guidance					
Potential for one additional significant adverse effect at Northgate Farm if the noise barrier (PNB1) cannot be	Operational	Noise enhancement barrier (PNB1), however due to design constraints the construction of this barrier is not yet confirmed.	N/A (Policy compliance)	Minor Adverse (considered to be significant under updated)	N/A

Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Residual Environmental Effect	Monitoring Requirements
built at this location, however, it is likely that this property would be eligible for compensation under the Noise Insulation Regulations (NIR) if this is the case			enhancement measure	guidance) if PNB1 cannot be constructed. D / P / LT	
Decrease in noise levels for 11 additional dwellings in the Scheme Study Area: Part A.	Operational	Application of Low Noise Road Surfacing and noise barriers	CEMP	Major and Moderate Beneficial D / P / LT	N/A
Decrease in noise levels at one dwelling (Patterson Cottage)	Operational	Application of Low Noise Road Surfacing	CEMP	Major Beneficial D / P / LT (Overall conclusions of the assessment of significance would remain the same when compared to former DMRB guidance)	N/A
Biodiversity					
No significant adverse or beneficial effects have been identified for operational air quality for the Scheme					
Population and Human Health					
No significant adverse or beneficial effects have been identified for the construction or operational phase of the Scheme.					
Material Resources					
No significant adverse or beneficial effects have been identified for the construction or operational phase of the Scheme.					
Climate					
No significant adverse or beneficial effects have been identified for the construction or operational phase of the Scheme.					
CROSS TOPIC COMBINED EFFECTS FOR THE SCHEME					
Combined effects on residents within the vicinity of the Main Compound that could be affected by the use and	Construction	Mitigation measures relating to potential effects on residents are set out in the respective Technical Chapters 5 to 13 and 15 for Part A,	CEMP	Moderate Adverse to Slight Beneficial	Monitoring measures relating to potential effects on residents are set out in the respective Technical Chapters 5 to 13 and 15

Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Residual Environmental Effect	Monitoring Requirements
economic benefit of the Main Compound and construction traffic travelling between the Main Compound and Part B.		Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) and Part B, Volume 3 of this ES (Application Document Reference: TR010041/APP/6.3) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3) .		D-ID / T / ST	for Part A, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) and Part B, Volume 3 of this ES (Application Document Reference: TR010041/APP/6.3) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3) .
Cumulative Assessment					
No significant adverse or beneficial cumulative effects have been identified for the construction or operational phase of the Scheme.					

REFERENCES

Ref. 17.1 – Highways Agency. Design Manual for Roads and Bridges Volume 11 Section 2 Part 5.

Ref. 17.2 – Highways England. Design Manual for Roads and Bridges. [online]
Available at:

[https://standardsforhighways.co.uk/dmrp/search?discipline=SUSTAINABILITY
AND ENVIRONMENT](https://standardsforhighways.co.uk/dmrp/search?discipline=SUSTAINABILITY_AND_ENVIRONMENT) (Accessed 20 April 2020)

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