

# A47 Blofield to North Burlingham Dualling

**Scheme Number: TR010040**

**Volume 6**

## **6.2 Environmental Statement Appendices** **Appendix 4.1 – Scoping Opinion Responses**

APFP Regulation 5(2)(a)

Planning Act 2008

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

December 2020

Infrastructure Planning

Planning Act 2008

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

A47 Blofield to North Burlingham  
Development Consent Order 202[x]

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**ENVIRONMENTAL STATEMENT APPENDICES**  
**Appendix 4.1 – Scoping Opinion Responses**

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# 1. Scoping Opinion Responses

## 1.1. Introduction

- 1.1.1. The Scoping Opinion (**TR010040/APP/6.6**) and the comments from consultees have been considered in undertaking the Environmental Impact Assessment (EIA) and in preparing the Environmental Statement (ES).
- 1.1.2. Comments from the Planning Inspectorate and the responses are recorded in the following tables.
- 1.1.3. Further consultation with topic specific consultees is detailed in chapters 5 to 15 of the ES (**TR010040/APP/6.1**).

## 1.2. Planning Inspectorate comments

Table 1-1: General comments

Comment	Response
<p>Section 2.4 of the Scoping Report provides only a brief description of the main components of the Proposed Development. Figure 1.1 provides an indication of the location of the Proposed Development, however no scheme detail is provided e.g. junction layouts, bridge arrangements etc. The lack of detail to the description combined with the lack of figures limits the ability of the Inspectorate and the consultation bodies to fully comprehend the proposals and provide comment on the scope of the assessment. This point is also reflected in Suffolk and Norfolk County Councils' consultation responses.</p>	<p>Detail provided in chapter 2 The Proposed Scheme (<b>TR010040/APP/6.1</b>).</p> <p>General Arrangement Plans (<b>TR010040/APP/2.6</b>) provide junction arrangements.</p>
<p>The Inspectorate expects that at the point of application the ES should include a detailed description of the Proposed Development which includes all of the works for which development consent is sought, supported by clear figures. Details of components such as signage, gantries, lighting, drainage features, landscaping and environmental mitigation features have not been specified in the Scoping Report and this information should be provided in the ES.</p>	<p>Detail provided in chapter 2 The Proposed Scheme (<b>TR010040/APP/6.1</b>)</p>
<p>The Inspectorate notes that the DCO Site Boundary shown in Figure A.1 of the Scoping Report includes a route running diagonally from the south-western corner of the boundary, across a field bordered by Hemblington Road to the east and Braydeston Hall Lane to the west. From the description of the development it is not clear what works are anticipated in this area, although it is understood that they relate to drainage.</p>	<p>Previously considered for drainage options. No longer part of the Proposed Scheme.</p>
<p>The ES should describe any development activities associated with The Windle, which is located close to the proposed DCO Site Boundary.</p>	<p>Not included as part of the Proposed Scheme.</p>

Comment	Response
<p>The description of the Proposed Development and the development footprint do not distinguish between temporary and permanent land take. The ES should clearly identify temporary land take (e.g. for construction compounds, demolition works, access routes, spoil handling), as well as the operational land take (including drainage features and mitigation areas).</p>	<p>Permanent and temporary land take is presented in the Work Plans <b>(TR010040/APP/2.3)</b> and assessed in the ES.</p>
<p>Limited information is provided in the Scoping Report relating to the physical characteristics of the Proposed Development during construction and operation. The ES should include a clear description of all relevant works/activities and development including; demolition works; construction facilities and accesses; site clearance activities; ground and excavation works and works to services and utilities. It is noted that Cadent and UK Power Networks apparatus are located in the vicinity of the Proposed Development and must be taken into account in the design development (Appendix 2).</p>	<p>Detail provided in chapter 2 The Proposed Scheme <b>(TR010040/APP/6.1)</b>.</p>
<p>Where flexibility is sought, the ES should set out the parameters that would apply for all components of the Proposed Development, where applicable setting out clearly any proposed limits of deviation. This should include the footprint and heights of structures (e.g. bridges and lighting columns) and permanent earthworks such as embankments (taking account of existing ground levels). The description should be supported by appropriate figures/drawings which should be clearly and appropriately referenced in the ES. Further advice on flexibility is provided below.</p>	<p>Limits of deviation included in chapter 2 The Proposed Scheme <b>(TR010040/APP/6.1)</b>.</p>
<p>Construction of the Proposed Development is proposed to last for approximately 16 months. The ES should set out any anticipated phased approach to construction, including the likely duration and location of construction activities. Construction traffic routing should be described (with reference to an accompanying plan), along with anticipated numbers/types of vehicle movements, with sufficient detail to enable a robust assessment in the ES. A draft/outline Construction Traffic Management Plan (CTMP) should be provided with the DCO application and agreed with relevant consultees. The CTMP should set out a clear strategy for managing temporary traffic diversions, including any diversion of heavy goods vehicles (HGVs) on the B1140 associated with sugar beet farming activities in the local area.</p>	<p>Construction phasing is included in chapter 2 The Proposed Scheme <b>(TR010040/APP/6.1)</b>. An Outline Traffic Management Plan has also been prepared <b>(TR010040/APP/7.8)</b></p>
<p>The Scoping Report provides a brief description of the location of the Proposed Development, and an overview of existing footways and other non-motorised routes in the vicinity. The ES should provide a detailed description of the existing land uses and features across the land to which the proposed DCO application relates. This information should be taken into account where relevant to individual aspect assessments.</p>	<p>Walker, cyclist and Horse rider (WCH) (previously referred to as non-motorised users) provision is assessed as part of chapter 12 Population and Human Health <b>(TR010040/APP/6.1)</b>.</p>

Comment	Response
<p>The EIA Regulations require that the Applicant provide ‘A description of the reasonable alternatives (for example in terms of development design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects’.</p>	<p>This is presented in chapter 3 Alternatives considered (TR010040/APP/6.1).</p>
<p>The Inspectorate notes the inclusion of a discrete section in the Scoping Report (chapter 3) that describes the alternative route alignments that were considered and consulted upon. The Inspectorate expects a comparable section to be included in the ES, which should include text and figures detailing the options considered for siting the dual carriageway as well as the configurations of the junctions and access roads.</p>	<p>This is presented in chapter 3 Alternatives considered (TR010040/APP/6.1).</p>
<p>The ES must also provide the reasoning for the selection of the chosen option(s), and this must include a comparison of the environmental effects.</p>	<p>This is presented in chapter 3 Alternatives considered (TR010040/APP/6.1).</p>
<p>The Applicant’s attention is drawn to the Inspectorate’s Advice Note Nine ‘Using the ‘Rochdale Envelope’1, which provides additional details on the recommended approach.</p>	<p>Noted</p>
<p>The Applicant should make every attempt to narrow the range of options and explain clearly in the ES which elements of the Proposed Development have yet to be finalised and provide the reasons. At the time of application, any Proposed Development parameters should not be so wide-ranging as to represent effectively different developments. The development parameters will need to be clearly defined in the draft DCO (dDCO) and in the accompanying ES. It is a matter for the Applicant, in preparing an ES, to consider whether it is possible to robustly assess a range of impacts resulting from a large number of undecided parameters. The description of the Proposed Development in the ES must not be so wide that it is insufficiently certain to comply with the requirements of Regulation 14 of the EIA Regulations.</p>	<p>Noted</p>
<p>The Inspectorate draws attention to paragraph 12.7.18 of the Scoping Report, which states that “the construction footprint (proposed site boundary) and the associated agricultural land-take has been based on the current proposed site boundary drawing” and that “the full extent of land-take (permanent or temporary) during construction is still unknown at this stage”. It should be noted that if the Proposed Development changes substantially during the EIA process and prior to submission of the DCO application the Applicant may wish to consider requesting a new Scoping Opinion.</p>	<p>Noted</p>

Table 1-2: Air Quality ES Chapter 5 (TR010040/APP/6.1)

Comment	Response
<p>The Inspectorate considers that the ES should also include an assessment of impacts associated with all relevant pollutants under the EU ambient air quality directive including increases in PM2.5 resulting from the Proposed Development where relevant.</p>	<p>The assessment of PM10 concentrations is included in the ES chapter and based on DMRB LA105 methodology. As per the methodology, there were no exceedances of the PM10 annual mean objective in the baseline year of 2015. Therefore, PM10 could be scoped out of the Do Minimum and Do Something scenarios. The risk of an exceedance with PM2.5 is unlikely given the assessment of PM10 was scoped out and no exceedances were reported.</p>
<p>In determining significance, the assessment should take into account performance against relevant target/limit values.</p>	
<p>Paragraph 5.3.5 states that further monitoring data 'should be available for the ES'. The Inspectorate considers that monitoring data used to inform the ES should include appropriate winter and summer survey data.</p>	<p>A six-month monitoring survey was undertaken for the Blofield Scheme. The data was bias adjusted and annualised in accordance with LAQM TG.(16) producing a 2015 annual mean. These concentrations were used in the air quality assessment to determine baseline conditions.</p>
<p>The ES should justify the continued application of DMRB HA207/07 for assessment of construction air quality effects, when more up to date guidance is available, such as the Institute for Air Quality Management (IAQM) "Guidance on the assessment of dust from demolition and construction (2014)".</p>	<p>HA207/07 has been superceded by LA105. The DMRB LA105 guidance was used for the air quality assessment in ES. In accordance with the new guidance, the dust assessment from demolition and construction was conducted using LA105 which has now superceded the IAQM guidance.</p>
<p>The Scoping Report indicates that there will be a qualitative assessment of impacts from construction traffic emissions if construction lasts longer than 6 months.                      This approach is broadly consistent with DMRB HA207/07 which states that traffic management measures and the effect of the additional construction vehicles should also be assessed as an additional scenario. The Inspectorate notes the proposed 16 month construction programme mentioned elsewhere in the Scoping Report and agrees this assessment should be carried out. The ES should clearly present this information and assess impacts that may result in likely significant effects.</p>	<p>The air quality assessment was undertaken in accordance with LA105 which states if construction activities are programmed to last for less than two years then the assessment of construction traffic can be scoped out. For this assessment, a qualitative assessment of construction traffic was not undertaken</p>

Table 1-3: Cultural Heritage ES Chapter 6 (TR010040/APP/6.1)

Comment	Response
<p>The ES should provide a robust justification as to why the 1km study area is appropriate and sufficient to capture all heritage assets which could experience impacts including impacts on setting – taking into account for example, visual intrusion and or increased noise emissions.</p> <p>The Inspectorate notes that chapter 6 of the Scoping Report refers to a Zone of Visual Influence prepared for the landscape and visual impact assessment, whereas the landscape and visual assessment refers to a Zone of Theoretical Visibility (ZTV). The ES should ensure that the approach to establishing the study area (based on the extent of impact) is clearly and consistently presented.</p> <p>Paragraph 6.2.2 states that a Zone of Visual Influence will be used to identify any heritage assets that would be affected by the construction of the Proposed Development. The Inspectorate also considers that the ZTV (or equivalent) should also be used to identify heritage assets affected during operation of the Proposed Development.</p> <p>Effort should be made to seek agreement with relevant consultees regarding the appropriate study area.</p>	<p>The changes to DMRB guidance now defines the study area more rigorously and without the need for any arbitrary buffers. The ZVI has been used for visual setting impacts, the design footprint and redline for physical impacts and the noise and vibration contours for other impacts. Data was gathered from a much larger area to ensure all possible significant impacts were accounted for.</p>
<p>The Inspectorate notes the potential for impacts on buried archaeological resources. Where relevant the ES should take into account guidance contained in Historic England's guidance document 'Preserving Archaeological Remains'5.</p> <p>The ES should explain which of the Chartered Institute for Archaeologists standards and guidance have been used to inform the ES.</p> <p>The Inspectorate draws the Applicant's attention to the revised Historic England Good Practice Advice note 3, which was updated December 2017.</p>	<p>All relevant guidance is listed in text and in the references section of the relevant technical appendices.</p>
<p>The Scoping Report states that a detailed assessment will be undertaken. However, the description of the detailed assessment in DMRB HA208/07 includes a variety of options applicable to the detailed assessment approach. Consequently, it is unclear what the precise scope of the assessment will be.</p> <p>The ES should include both a desk-based assessment and an archaeological field evaluation (where relevant). The scope of assessment should be confirmed with Broadland District Council Conservation Officer and archaeological staff at Norfolk County Council as appropriate.</p> <p>The Inspectorate expects that in addition to the matrix assessment approach, the ES should include a narrative to explain and justify the assessment of setting and the significance of heritage assets.</p>	<p>"Desk-based and field-based surveys were undertaken and are presented in the chapter and specialist appendices. A scheme of fieldwork undertaken for a previous phase of this project has also been included.</p> <p>Norfolk County Council Environmental Service were consulted regarding the scope and design of fieldwork, and had a monitoring role.</p> <p>A narrative approach has been used and has led the assessment of significance and setting impacts. This has been used alongside the matrix approach detailed in the updated DMRB guidance. Close attention was also paid to the regional research framework when determining significance of known and potential archaeological remains"</p>



Table 1-4: Landscape and Visual ES Chapter 7 (TR010040/APP/6.1)

Comment	Response
<p>The Proposed Development would introduce a new road and new bridge structures into a generally flat, rural landscape setting.</p> <p>The Inspectorate therefore considers that landscape and visual impacts could occur beyond 1km from the application site and that a more detailed understanding of the extent of impacts should be made with reference to the proposed ZTV (or equivalent). The study areas for the landscape assessment and the visual assessment in the ES should be justified and effort should be made to agree these with relevant consultees.</p> <p>The Inspectorate notes the intention in paragraph 7.6.2 of the Scoping Report to consult on the location of viewpoints, presentational material (photomontages), and the methodology of the assessment generally. The ES should explain how such consultation has informed decisions taken in regards to the assessment.</p>	<p>The study area for the Proposed Scheme has been established with reference to criteria set out in DMRB LA104 Environmental Assessment and Monitoring and LA107 Landscape and Visual Effects. A Zone of Theoretical Visibility has been established using computer modelling to identify the potential extents from which the Proposed Scheme may be visible (Figure 1.1 (Scheme overview) (TR010040/APP/6.3)). The extent of ZTV has been run to a 1.5km offset from the Proposed Scheme in recognition of PINS Scoping Opinion response to consider the potential for visual effects beyond a 1km study area (Figure 7.4 (Visual Context) (TR010040/APP/6.3)). The extent of potential visibility has then been verified in the field to determine how perceptible potential views of the Proposed Scheme may be. In this respect the study area for the LVIA has been identified to extend to 1km from the red line boundary (Figure 1.1 (Scheme overview)). Where there is potential for a specific landscape and visual effect to be experienced beyond the 1km study area this is noted within the assessment. The potential visibility of the Proposed Scheme has been discussed with Broadland District Council and the locations of representative assessment viewpoints to capture the nature and range of potential views has been agreed.</p>

Comment	Response
<p>The Scoping Report states that the ZTV will be established based on criteria including an observer height of 1.6m above ground level. However, the Inspectorate notes that DMRB recommends that the observer height is 1.8m above ground level. The ES should clearly explain the approach taken to the assessment and any assumptions made or deviation from recognised guidance should be identified and justified.</p>	<p>Subsequent to issue of the Scoping Report, DMRB requirements for ZTV preparation have changed to that now defined in DMRB LA107. In this respect the DMRB standard cross refers to The Guidelines for Landscape and Visual Impact Assessment (GLVIA) (2013). GLVIA advocates using a viewer height of 1.5 to 1.7m above ground level as the basis for ZTV mapping based on the midpoint for average heights for men and women. The ZTV parameters used in the assessment are defined in ES Appendix 7.3 (ZTV and Verified Photomontage Methodology) (TR010040/APP/6.3).</p>
<p>To support a robust assessment of likely significant effects, the ES should include plans and visualisations of the Proposed Development which highlight the specific elements that would impact on landscape character and be visually prominent to visual and amenity receptors (for example the new dual carriageway, structures, bridges, cuttings and embankments). Cross sections and photomontages should be included in the ES for this purpose.</p>	<p>The ES includes a ZTV colour graphic (Figure 7.4 (Visual Context) (TR010040/APP/6.3)) which highlights potential visibility of Proposed Scheme overbridges as one of the most visible aspects of the scheme design. Photomontage visualisations of the Proposed Scheme from key representative viewpoint locations (agreed with Broadland District Council) have also been prepared to inform robust assessment of the Proposed Scheme (Figure 7.6 (Viewpoints)(TR010040/APP/6.3)).</p>
<p>Mitigation planting and landscape mitigation are referred to in order to reduce the operational effects of the Proposed Development. The Applicant should discuss and make effort to agree the planting specification/species mix with the relevant local planning authorities and have regard to the East Broadland Green Infrastructure Project Plan. An appropriate aftercare period for the proposed landscaping should also be discussed and ideally agreed. It should be clear how the proposed landscaping would mitigate the effects to landscape and visual receptors, and how these effects would change as the proposed planting matures. Interactions with other ES aspects, for example beneficial impacts on local ecology, should be assessed and explained.</p>	<p>The potential to incorporate particular planting or grass seed mixes has been raised with Broadland District Council. The environmental (mitigation) functions of Proposed Scheme landscape elements are set out in the Masterplan (TR010040/APP/6.8). The evolving influence of environmental mitigation as it matures is recorded in the ES LVIA chapter in considering landscape and visual effects at both Year 1 and Year 15. In order to maintain technical distinction in the focus of assessment reporting the mutual and complimentary beneficial effects of environmental mitigation are considered in relevant ES chapters.</p>

Table 1-5: Biodiversity ES Chapter 8 (TR010040/APP/6.1)

Comment	Response
<p>The Inspectorate does not consider that sufficient justification has been provided to scope out effects on Paston Great Barn Special Area of Conservation (SAC), given that the receptor lies within 30km of the Proposed Development, which is within the proposed study bat area boundary set out in Table 8.1. Further justification based on survey and/or desk study information and consultation with relevant nature conservation bodies is required.</p>	<p>The Paston Great Barn SAC has been scoped out of the 2020 Habitat Regulations Assessment which includes evidence of research that there are no effect pathways. Natural England have confirmed they concur with the HRA conclusions. This is also reflected in the Chapter 8 of the ES (TR010040/APP/6.1).</p>
<p>Table 8.3 states that breeding bird surveys will be carried out “within the footprint of the Proposed Scheme, plus a 100m buffer”. However, the Inspectorate notes that barn owl populations within 1.5km of road boundaries are at risk of collision mortality. If barn owls are likely to be present, within a 1.5km study area then the assessment should include consideration of impacts to this species. The Applicant should liaise with Natural England to ensure the assessment appropriately addresses the collision risk to barn owls.</p>	<p>The Barn owl survey study area was increased to 1.5km where access permitted. Natural England were consulted in February 2020. This is reflected in chapter 8 of the ES (TR010040/APP/6.1).</p>
<p>The Scoping Report states that ecological surveys undertaken to date were confined to locations where landowner permission was obtained. The Applicant should ensure that the ES is accompanied by an appropriate and comprehensive set of ecological surveys sufficient to inform the assessment of likely significant effects.</p>	<p>Limitations to the assessment are detailed in Chapter 8 of the ES (TR010040/APP/6.1).</p>
<p>The Scoping Report provides contradictory statements regarding the likely presence or absence of invasive species (refer to paragraph 8.3.20 and Table 8.3). The Inspectorate notes that Winter Heliotrope (Petasites fragrans) has been identified as being present in Burlingham and this is also referenced by the Environment Agency. The ES must assess the potential impacts from non-native invasive species and where necessary set out proposed mitigation to prevent the spread of this species.</p>	<p>No Invasive non-native species were identified on site during the 2018 and 2020 surveys.</p>
<p>The Scoping Report only includes high level information about potential increased badger mortality during construction. Detailed information regarding the risk of mortality or injury to badgers or a firm commitment to assess this impact during operation is not mentioned. The Inspectorate considers that where significant effects are likely to occur during construction or operation this should be assessed in the ES. The assessment should include consideration of the risk of other animal collisions (e.g. deer/fox) and hazards to road users arising from such collisions, as well as the role that newly created green infrastructure can play in managing this risk.</p>	<p>"Badger surveys were undertaken in 2018 and 2019. No badgers or setts were identified in the study area in these surveys. Pre-construction badger surveys are included in the Environmental Management Plan (TR010040/APP/7.7).</p>
<p>The Inspectorate recommends that any proposed mitigation and monitoring measures are agreed as far as possible with relevant consultees including Natural England and the local planning authorities. The ES should detail all proposed mitigation measures and demonstrate how they will be secured.</p>	<p>All consultation and monitoring is detailed in Chapter 8 of the ES (TR010040/APP/6.1).</p>

Comment	Response
<p>"The Scoping Report does not identify mortality/ injury of protected and/ or priority species as a potential impact arising from the construction and operation of the project. It does not identify impacts from air pollution or operational impacts arising from noise and vibration and lighting. The Inspectorate considers that these should all be assessed in the ES, during both the construction and operational phases of the Proposed Development. These assessments should be informed by the findings reported in other relevant ES aspect chapters, for example, air quality, noise and vibration."</p>	<p>Data from NVIS for levels of road kill (July 2020) were used to inform the assessment.</p> <p>All risks arising from noise, air quality and vibration have been assessed as well as increased rates of mortality.</p>
<p>"Significance is described in terms of 'medium minor negative, or 'high intermediate negative', etc. This does not reflect the categorisation of effects as set out in Table 8.6 of the Scoping Report. The Applicant should ensure that the methodology is applied and described consistently throughout the ES and each aspect chapter (where relevant), so that the significance of the potential effects can be clearly understood."</p>	<p>Noted and reflected in the ES (TR010040/APP/6.1).</p>

Table 1-6: Geology and Soils ES Chapter 9 (TR010040/APP/6.1)

Comment	Response
<p>The Applicant has not provided sufficient information to justify scoping out the assessment of significant effects during operation. For example, the Scoping Report explains that the need for infiltration drainage has not yet been determined. Whether or not this method is deployed will have a bearing on the likely impacts to geology and soils. The ES should provide an assessment of all relevant likely significant effects. If evidence becomes available that justifies scoping this matter from the ES e.g. following detailed drainage design, this should be explained in the ES.</p>	<p>Additional text and clarification on the scheme drainage design has been added to the scoping section of the ES chapter to justify the de-scoping of assessment of effects relating the introduction of contamination to soils through infiltration. No likely significant effects are anticipated in this regard. This de-scoping has been agreed with recent consultation with Environmental Agency, Natural England, Norfolk County Council consultees.</p>
<p>The Scoping Report identifies a very high risk of UXO within the study area but suggests that an assessment should be excluded for the purposes of EIA. The ES should consider the potential risks associated with the identification and disposal of UXO within the proposed construction footprint.</p>	<p>Additional text and clarification on the UXO risk is now included in the scoping section of the chapter and an explanation that appropriate risk mitigation measures will be put in place as part of the H&amp;S plan for the scheme. No likely significant effects are anticipated in relation to disturbing any UXO either through identification or disposal and the de-scoping of this is now justified. This de-scoping has been agreed with recent consultation with EA, NE, NCC consultees.</p>

Comment	Response
<p>Although the Scoping report states that the study area will include a 1km boundary from the Proposed Development this has yet been clearly defined because areas 'where physical works and ground disturbances would take place' are not precisely defined.</p> <p>Within the ES the study area should be clearly defined, justified and reflect the anticipated extent of potential impacts.</p>	<p>The study area has been clearly defined in Chapter 9 of the ES <b>(TR010040/APP/6.1)</b>.</p>
<p>Table 9.1 of the Scoping Report uses chainages to identify the locations of changes in superficial deposits along the route. No chainage sections or maps are provided within the Scoping Report. The ES should include a clear description along with maps/figures to identify the location of these features.</p>	<p>Noted and reflected in Chapter 9 of the ES <b>(TR010040/APP/6.1)</b>.</p>
<p>The Applicant should note that the Environment Agency has revised the aquifer designation of the Lowestoft Formation from 'Unproductive' to 'Secondary (undifferentiated)'. The ES should be amended to reflect this change in designation.</p>	<p>Change noted in designation. Effects relating to contamination have been de-scoped from the assessment. Therefore, reference to the hydrogeology is not required to be included in the chapter. This amendment is reflected in Chapter 13 RDWE which deals with hydrogeology. NCC and NE have agreed to this de-scoping. A Preliminary Risk Assessment (Appendix 9.1)<b>(TR010040/APP/6.2)</b> has been prepared to further justify the de-scoping of these effects as explicitly requested by EA.</p>
<p>The Inspectorate notes the consultation response from Norfolk County Council that the Proposed Development is situated within a mineral safeguarding area. The extent to which the Proposed Development would impact mineral reserves should be assessed in the ES. The Applicant should seek to agree the approach to the assessment with relevant consultees</p>	<p>Minerals now will be discussed in the materials chapter and the advice provided by NCC on safe guarded areas will be followed. This de-scoping has been agreed with recent consultation with EA, NE, NCC consultees.</p>
<p>The Applicant should ensure that findings from the remediation strategy are included within the ES along with a strategy that the options to manage, remove/dispose of or treat contaminated material. The strategy should include the regulatory requirements for managing previously unknown contamination which may be encountered during construction of the Proposed Development.</p>	<p>Further text and clarification is provided in the scoping section of the ES chapter, detailing the results of the 2018 detailed ground investigation, which did not identify any contaminated soil. A remediation strategy is not required for the Proposed Scheme. The Environmental Management Plan <b>(TR010040/APP/7.7)</b> and the earthworks specification will set out a strategy for dealing with unknown contamination which may be encountered. A PRA has been prepared to further justify the de-scoping of these effects as explicitly requested by EA. NoCC and NE have agreed with our proposal to de-scope effects relating to contamination from soils and geology.</p>

Comment	Response
<p>The Inspectorate considers that an assessment of any likely significant effects associated with changes to groundwater flow resulting from the Proposed Development should be included within the ES. The Applicant should discuss and agree the approach the assessment with relevant consultees.</p>	<p>Effects relating to contamination have been de-scoped from the assessment and so, reference to the hydrogeology is not required to be included in the chapter. This point will be reflected in the RDWE chapter which deals with hydrogeology. A PRA has been prepared to further justify the de-scoping of these effects as explicitly requested by EA. NoCC and NE have agreed with our proposal to de-scope effects relating to contamination from soils and geology.</p>

Table 1-7: Material Assets and Waste ES Chapter 10 (TR010040/APP/6.1)

Comment	Response
<p>The Inspectorate agrees that significant effects during operation are unlikely and this matter can be scoped out of the ES. The Inspectorate acknowledges that the Proposed Development will make only 'minimal requirements for materials and generation of waste' during operation.</p>	<p>Noted</p>
<p>The Scoping Report has not clearly defined or justified the study area. The Scoping Report states that the study area will be determined by 'the influence of the Proposed Scheme' but a description of how the 'influence of the Proposed Scheme' will be determined has not been included. The ES should include a clearly defined study area that is appropriate in having regard to the anticipated extent of potential impacts.</p>	<p>Further text and clarification is provided in the study area section of the ES chapter. This reflects most up to date guidance.</p>
<p>A future baseline from the first year of construction should be included within the ES.</p>	<p>Reflected in the ES in line with DMRB LA 110.</p>
<p>The ES should contain the location, the capacity and the type of the waste infrastructure receptors in order to comprehensively assess the effects the generation of waste may have on the environment.</p>	<p>Table 10-3 in chapter 10 (TR010040/APP/6.1) outlines the remaining landfill capacity summary (2018-2019). Permanent impacts to the landfill facilities (i.e void capacity reduction) are assessed as part of the ES.</p>
<p>The Scoping Report indicates that the ES will be undertaken on the basis of guidance contained in DMRB. The materials aspect chapter should have regard to the methods contained within the Interim Advice Note (IAN) 153/11.</p>	<p>The ES chapter has been written in accordance with the methodology outlined in DMRB LA 110 Material assets and waste.</p>

Comment	Response
<p>The Scoping Report states that specific quantities of materials and waste will be estimated at a later stage as the design progresses. The Applicant should include an estimation of the quantity of construction materials and waste arising within the ES.</p> <p>The Applicant should note that the packaging of the construction materials should also be included within the estimate of waste arisings.</p>	<p>The ES chapter has been written in accordance with the methodology outlined in DMRB LA 110 Material assets and waste. The assessment uses estimates on the volumes of materials used and waste generated during the construction of the Proposed Scheme (Construction Demolition Wastes and surplus unsuitable earthworks arisings). The requirement to assess packaging materials is not a requirement in DMRB LA 110. Adoption of SWMP will minimise volumes of packaging materials disposed of to landfill by maximising the potential for recycling.</p>
<p>The Inspectorate notes that 'professional judgement will be used to provide an assessment of effects' but makes no reference to a methodology. The ES should include a clear description of the methodology used to undertake the assessment.</p>	<p>The ES chapter has been written in accordance with DMRB LA 110 and the significance criteria outlined in Table 3.13 (significance category descriptions).</p>

Table 1-8: Noise and Vibration ES Chapter 11 (TR010040/APP/6.1)

Comment	Response
<p>Paragraphs 11.9.12-13 of the Scoping Report imply that traffic vibration will be assessed, however no LOAEL or SOAEL criteria are provided in respect of operational vibration in Table 11.2.</p> <p>Potential vibration effects should be assessed and appropriate criteria set out.</p>	<p>Operational vibration is scoped out with the updated DMRB LA 1111. Additional text and clarification on the scheme drainage design has been added to the scoping section of the ES chapter to justify the de-scoping of assessment of effects.</p>
<p>Two NIA are identified in Figure B.2. The Inspectorate was not able to identify the other two NIA on the figures presented. The ES should clearly set out this information.</p>	<p>Five NIAs are now considered in the assessment. All identified in the figures.</p>
<p>For ease of understanding the ES should use the same noise indices/time periods to describe road traffic noise levels or provide conversion factors within the text.</p>	<p>Noise indices, times and description in line with updated DMRB LA 111.</p>
<p>The Applicant's ES should avoid use of terms such as 'broadly in accordance' which create uncertainty in the methodology adopted. Any departures from the stated methodology, in particular deviations from recognised practice should be identified, explained and justified.</p>	<p>Noted</p>
<p>The ES should assess impacts from operational vibration where significant effects are likely to occur.</p>	<p>See comment above</p>

Table 1-9: Population and Human Health (previously People and Communities) ES Chapter 12  
 (TR010040/APP/6.1)

Comment	Response
<p>The Inspectorate considers that the Proposed Development has the potential to impact agricultural operations due to land take or severance of land parcels. The Inspectorate considers that this matter should be assessed in the ES if significant effects are likely to occur.</p>	<p>Noted and included in the assessment.</p>
<p>The ES should include a clear justification in support of the study areas that are based on professional judgement. The ES should also ensure they are depicted on corresponding figures to aid understanding.</p> <p>The Inspectorate notes that DMRB Volume 11, Section 3, Part 8, Para 2.2, states that community facilities “and their catchment areas” should be addressed by the assessment. The ES should clearly explain how this requirement has been taken into account in the selection of appropriate study areas.</p>	<p>The study area for both land use and accessibility and human health have been selected based on the characteristics of the project and the potential impacts of the Proposed Scheme.</p> <p>A population and human health constraints plan (figure 12-1) (TR010040/APP/6.3) has been made which shows both study areas."</p> <p>The study areas have been selected to ensure that this covers both community facilities and the residents who are likely to use these facilities based on their proximity, and the availability of other facilities close by. How this has been selected is demonstrated in the ES chapter in the study area description and baseline sections.</p>
<p>Descriptions of the baseline environment and receptors such as public rights of way are not clearly defined in the Scoping Report and the accompanying figures.</p> <p>These features should be described in the ES and accompanying figures should be labelled to allow for easy cross-reference with the textual description.</p>	<p>The baseline has been provided which describes community and education facilities, commercial buildings and public rights of way within the study area.</p> <p>The accompanying figure is labelled with public rights of way within the study area and community and education facilities, and commercial buildings are labelled in the legend of the figure for cross referencing with the chapter.</p>
<p>No baseline information is provided in relation to the assessment of community severance. The ES must include a description of the baseline conditions, against which the Proposed Development can be assessed.</p>	<p>Baseline information on severance has been provided in terms of residential properties, community land, community assets, development land, businesses and walkers, cyclists and horse-riders.</p> <p>Any additional or reduction in severance as a result of the Proposed Scheme has been assessed.</p>
<p>Agricultural land classification (ALC) surveys are proposed, which would follow the Ministry of Agriculture, Fisheries and Food (MAFF) guidelines.</p> <p>The Inspectorate advises that the guidance within Natural England's TIN04913 should also be followed.</p>	<p>Agricultural land classification surveys will be carried out pre-construction.</p> <p>Natural England's TIN049 methodology to determine the agricultural land grade</p>



Comment	Response
The ES should quantify the temporary and permanent agricultural land-take by ALC grade and assess any likely significant effects in this respect.	(ALC) in the vicinity of the works will be used to inform an assessment of the magnitude of impact on agricultural operations (temporary and permanent). This requirement is included in the REAC as part of the DCO submission.
Adverse impacts from construction (eg on community severance, land-take, etc) have been identified as temporary. The ES should explain the duration of impacts and what constitutes a temporary impact.	Temporary and permanent impacts within the construction impacts section have been identified as this within the chapter.
The Scoping Report proposes to assess a number of matters using a DMRB Simple Level approach in the EIA. The ES should include a clear justification for why this level of assessment is sufficient.	No significant effects above a significance of 'Moderate Adverse' have been identified within the Population and Human Health ES chapter as a result of the Proposed Scheme, therefore it is proposed that further assessment (detailed approach) is not required.

Table 1-10: Road Drainage and Water Environment ES Chapter 13 (TR010040/APP/6.1)

Comment	Response
The Applicant has not proposed to scope any matters out of the assessment.	Noted
The Applicant states that a 'number of water features within 1km' and features that may be impacted downstream will be included within the assessment 'as appropriate'; but has not stated which water features will be included or defined which features are 'appropriate'. Within the ES the study area should be clearly defined, justified and reflect the anticipated extent of potential impacts.	The water features have been identified and described in the baseline section of the ES chapter. The study area has been defined.
The Inspectorate notes that the Applicant has not set out a specific study area for the assessment of effects on groundwater. This should be clearly set out in the ES and reflect the anticipated extent of potential impacts.	Scoping area for groundwater has been set out in the ES.
The Inspectorate notes that there are currently no details of the drainage design. This information is required to inform the assessment of effects on water features, soils and ecological receptors.	Drainage design has been included within the ES chapter and also within the drainage strategy report.
The Scoping Report incorrectly references consultation with organisations listed in Scoping Report paragraph 13.6.2 rather than those organisations listed in 13.6.1. For the avoidance of doubt, organisations listed in 13.6.1 of the Scoping Report should be consulted.	These organisations have been consulted.
The Applicant states that spills/ leakages of contaminants will be mitigated through a Construction Environmental Management Plan (CEMP). The CEMP should include specific details of proposed mitigation measures including any monitoring.	This has been reflected in the ES.

Comment	Response
<p>The assessment proposes to assess groundwater level but does not set out a specific approach to groundwater level monitoring. The ES should set out this information. The Inspectorate considers that groundwater levels are required to inform the assessment of both construction and operational impacts.</p>	<p>The assessment of both construction and operational impacts considers groundwater level information collected as part of the GI. A detailed description of groundwater level monitoring information is provided in Appendix 13.4 Groundwater Assessment.</p>
<p>The surface water examples found within the adverse effect rows do not correspond to the definitions provided within HD45/09 Annex IV Table A4.3 as the calculated risk of pollution from spillages is not included. Within the ES, this Table should include the full definitions provided within HD45/09 Annex IV Table A4.3.</p>	<p>Noted and reflected in the ES chapter.</p>
<p>This paragraph provides a set of methodologies that may be adopted 'if required'. The Applicant should ensure that the scope of assessment is sufficient to encompass the extent of the impacts and the likely significant effects of the Proposed Development.</p>	<p>Noted. The scope of assessment within the ES chapter is sufficient.</p>
<p>Paragraph 13.101.3 states that flood risk mitigation will be designed in accordance with the two references highlighted. The references are not set out in the reference list, therefore it is uncertain what measures will be considered. The ES reference list should include all reference sources relied upon in the ES.</p>	<p>The ES reference list has been checked against all references in the ES chapter text.</p>

Table 1-11: Climate ES Chapter 14 (TR010040/APP/6.1)

Comment	Response
<p>As with other chapters, the Scoping Report places reliance on a potential further assessment. There is therefore uncertainty regarding the precise scope to be proposed in the ES. The ES should clearly define and explain the criteria/methodology that has been used to determine the assessment of likely significant effects.</p>	<p>Noted</p>
<p>As set out in the NN NPS the applicant should take into account the potential impacts of climate change using the latest UK Climate Projections, this should include the anticipated UKCP18 projections where appropriate.</p>	<p>Current DMRB Guidance LA 114 requires the climate chapter to account for the latest climate change projections and we have used UKCP18 projections for the high emissions scenario for the 2080s in our assessment.</p>

Table 1-12: Cumulative Effects Assessment (previously Combined and Cumulative) ES Chapter 15 (TR010040/APP/6.1)

Comment	Response
<p>Further justification should be provided for the 2km ZOI once the spatial extent of the likely significant effects at an aspect level is fully understood eg following preparation of the ZVI and once the vertical heights of structures has been confirmed.</p> <p>The Applicant should give consideration to the sequential cumulative effects of other schemes occurring on the A47.</p>	<p>Noted. ZOI has been increased and approach detailed in chapter.</p>
<p>"It is unclear what is meant by the reference to determining the significance of combined effects upon environmental receptors based upon 'the balance of scores'.</p>	<p>Noted. Approach is clarified in the chapter and follows relevant guidance.</p>