

A1 in Northumberland: Morpeth to Ellingham

Scheme Number: TR010041

6.13 Scoping Opinion Part B

Planning Act 2008

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

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The A1 in Northumberland: Morpeth to Ellingham

Development Consent Order 20[xx]

SCOPING OPINION PART B

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SCOPING OPINION:

Proposed A1 Northumberland -Alnwick to Ellingham Improvement Scheme

Case Reference: TR010053

Adopted by the Planning Inspectorate (on behalf of the Secretary of State for Housing, Communities and Local Government) pursuant to Regulation 10 of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

December 2018

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1. INTRODUCTION

1.1 Background

- 1.1.1 On 07 November 2018, the Planning Inspectorate (the Inspectorate) on behalf of the Secretary of State (SoS) received a scoping request from Highways England (the Applicant) under Regulation 10 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) for the proposed A1 Northumberland Alnwick to Ellingham Improvement Scheme (the Proposed Development).
- 1.1.2 In accordance with Regulation 10 of the EIA Regulations, an Applicant may ask the SoS to state in writing its opinion 'as to the scope, and level of detail, of the information to be provided in the environmental statement'.
- 1.1.3 This document is the Scoping Opinion (the Opinion) provided by the Inspectorate on behalf of the SoS in respect of the Proposed Development. It is made on the basis of the information provided in the Applicant's report entitled A1 in Northumberland Alnwick to Ellingham Environmental Impact Assessment Scoping Report (the Scoping Report). This Opinion can only reflect the proposals as currently described by the Applicant. The Scoping Opinion should be read in conjunction with the Applicant's Scoping Report.
- 1.1.4 The Applicant has notified the SoS under Regulation 8(1)(b) of the EIA Regulations that they propose to provide an Environmental Statement (ES) in respect of the Proposed Development. Therefore, in accordance with Regulation 6(2)(a) of the EIA Regulations, the Proposed Development is EIA development.
- 1.1.5 Regulation 10(9) of the EIA Regulations requires that before adopting a scoping opinion the Inspectorate must take into account:
 - (a) any information provided about the proposed development;
 - (b) the specific characteristics of the development;
 - (c) the likely significant effects of the development on the environment; and
 - (d) in the case of a subsequent application, the environmental statement submitted with the original application.
- 1.1.6 This Opinion has taken into account the requirements of the EIA Regulations as well as current best practice towards preparation of an ES.
- 1.1.7 The Inspectorate has consulted on the Applicant's Scoping Report and the responses received from the consultation bodies have been taken into account in adopting this Opinion (see Appendix 2).
- 1.1.8 The points addressed by the Applicant in the Scoping Report have been carefully considered and use has been made of professional judgement

and experience in order to adopt this Opinion. It should be noted that when it comes to consider the ES, the Inspectorate will take account of relevant legislation and guidelines. The Inspectorate will not be precluded from requiring additional information if it is considered necessary in connection with the ES submitted with the application for a Development Consent Order (DCO).

- 1.1.9 This Opinion should not be construed as implying that the Inspectorate agrees with the information or comments provided by the Applicant in their request for an opinion from the Inspectorate. In particular, comments from the Inspectorate in this Opinion are without prejudice to any later decisions taken (eg on submission of the application) that any development identified by the Applicant is necessarily to be treated as part of a Nationally Significant Infrastructure Project (NSIP) or Associated Development or development that does not require development consent.
- 1.1.10 Regulation 10(3) of the EIA Regulations states that a request for a scoping opinion must include:
 - (a) a plan sufficient to identify the land;
 - (b) a description of the proposed development, including its location and technical capacity;
 - (c) an explanation of the likely significant effects of the development on the environment; and
 - (d) such other information or representations as the person making the request may wish to provide or make.
- 1.1.11 The Inspectorate considers that this has been provided in the Applicant's Scoping Report. The Inspectorate is satisfied that the Scoping Report encompasses the relevant aspects identified in the EIA Regulations.
- 1.1.12 In accordance with Regulation 14(3)(a), where a scoping opinion has been issued in accordance with Regulation 10 an ES accompanying an application for an order granting development consent should be based on 'the most recent scoping opinion adopted (so far as the proposed development remains materially the same as the proposed development which was subject to that opinion)'.
- 1.1.13 The Inspectorate notes the potential need to carry out an assessment under The Conservation of Habitats and Species Regulations 2017 (the Habitats Regulations). This document must be co-ordinated with the EIA, to avoid duplication of information between assessments.

1.2 The Planning Inspectorate's Consultation

1.2.1 In accordance with Regulation 10(6) of the EIA Regulations the Inspectorate has consulted the consultation bodies before adopting a scoping opinion. A list of the consultation bodies formally consulted by the Inspectorate is provided at Appendix 1. The consultation bodies have been notified under Regulation 11(1)(a) of the duty imposed on them by

Regulation 11(3) of the EIA Regulations to make information available to the Applicant relevant to the preparation of the ES. The Applicant should note that whilst the list can inform their consultation, it should not be relied upon for that purpose.

- 1.2.2 The list of respondents who replied within the statutory timeframe and whose comments have been taken into account in the preparation of this Opinion is provided, along with copies of their comments, at Appendix 2, to which the Applicant should refer in preparing their ES.
- 1.2.3 The ES submitted by the Applicant should demonstrate consideration of the points raised by the consultation bodies. It is recommended that a table is provided in the ES summarising the scoping responses from the consultation bodies and how they are, or are not, addressed in the ES.
- 1.2.4 Any consultation responses received after the statutory deadline for receipt of comments will not be taken into account within this Opinion. Late responses will be forwarded to the Applicant and will be made available on the Inspectorate's website. The Applicant should also give due consideration to those comments in preparing their ES.

1.3 Article 50 of the Treaty on European Union

1.3.1 On 23 June 2016, the United Kingdom (UK) held a referendum and voted to leave the European Union (EU). On 29 March 2017 the Prime Minister triggered Article 50 of the Treaty on European Union, which commenced a two year period of negotiations regarding the UK's exit from the EU. On 26 June 2018 The European Union (Withdrawal) Act 2018 received Royal Assent and work to prepare the UK statute book for Brexit has begun. The European Union (Withdrawal) Act 2018 will make sure that UK laws continue to operate following the UK's exit. There is no immediate change to legislation or policy affecting national infrastructure. Relevant EU Directives have been transposed into UK law and those are unchanged until amended by Parliament.

2. THE PROPOSED DEVELOPMENT

2.1 Introduction

2.1.1 The following is a summary of the information on the Proposed Development and its site and surroundings prepared by the Applicant and included in their Scoping Report. The information has not been verified and it has been assumed that the information provided reflects the existing knowledge of the Proposed Development and the potential receptors/ resources.

2.2 Description of the Proposed Development

- 2.2.1 The Applicant's description of the Proposed Development, its location and technical capacity (where relevant) is provided in Scoping Report sections 2.3 2.4.
- 2.2.2 The Proposed Development is intended to improve the existing A1 between Alnwick and Ellingham, with a particular focus on safety, resilience and journey times along the route. This is to be achieved through the introduction of approximately 8km of online widening to upgrade the existing road from a single carriageway to a two-lane dual carriageway. The existing A1 will form the new northbound carriageway and a new southbound carriageway will be built to the east. The proposals will include the construction of an accommodation bridge for vehicular and non-motorised users, access arrangements and grade separated junctions, but no further information has been provided on the scale or dimensions applicable to these works or structures. The Proposed Development will also require the diversion of existing public rights of way, attenuation ponds and culverts, as required.
- 2.2.3 The Proposed Development is located in on the A1 in Northumberland from 1150m north of the B1340 at Denwick northward to 360m south of the existing junction at North Charlton, as shown on Figure A1 at Appendix A of the Scoping Report.
- 2.2.4 During the construction of the proposed scheme, two temporary site compounds would be utilised. The Main Compound would be located to the west of Thirston New Houses (see Appendix A Figure A2: Environmental Constraints Plan of the Scoping Report). A second site compound would also be located to the south of Alnwick (see Appendix A Figure A2: Environmental Constraints Plan of the Scoping Report) at the salting and gritting depot at Lionheart Enterprise Park.
- 2.2.5 The Scoping Report states that construction plant, materials and waste would be stored at the Alnwick site compound and welfare facilities located within the shared A1 in Northumberland: Morpeth to Felton site compound.
- 2.2.6 The Scoping Report also indicates that should the two suggested compounds be deemed unsuitable and / or if the Lionheart Enterprise

Park Compound is not available at the time of construction; a field to the south-east of Charlton Mires could be used as a temporary construction site compound. This potential site compound is located within the red line boundary to the east of the existing A1, in an existing field to the south of Charlton Mires.

2.3 The Planning Inspectorate's Comments

Description of the Proposed Development

- 2.3.1 Chapter 2 of the Scoping Report provides a description of the Proposed Development. While maximum parameters have been provided for the Charlton Mires junction and the Broxfield Overbridge (with two potential options for each feature) the Inspectorate notes that the Scoping Report lacks in-depth detail on all elements of the Proposed Development, and proposes to allow flexibility in the final design. The ES must include a description of all physical characteristics of the Proposed Development. Where uncertainty exists and flexibility is sought this should explain not only the maximum parameters but also the anticipated limits of deviation, the dimensions, locations and alignments of the various project elements, including points of access and key structures. This information is important to ensure that any potential significant effects associated with the construction and operation stages have been appropriately assessed. The ES should provide figures to support the project description and depict the necessary detail.
- 2.3.2 Construction of the Proposed Development is anticipated to last approximately 18 months and is expected to commence in 2021. The ES should contain a general construction programme so that it is clear how and when the specific works will take place, and how resulting effects on road networks are to be managed. It should provide a description of the land use requirements during both the construction and operational phases. It is also important that the ES clearly identifies and distinguishes areas of land which are required either permanently or on a temporary basis.
- 2.3.3 The scoping report presents options with regards to number and locations of compounds. The report states that should the two suggested compounds be deemed unsuitable and / or if the Lionheart Enterprise Park Compound is not available at the time of construction; a field to the south-east of Charlton Mires could be used as a temporary construction site compound. It is not clear whether the utilisation of the field southeast of Charlton Mires would be as a replacement of the two suggested locations, should one become unavailable or whether it would be used along with one of the suggested compound locations.
- 2.3.4 The Scoping Report states that the Proposed Development may require the diversion of various cables and utilities. This will necessitate associated ground moving activities such as excavation and the establishment of temporary work areas. However, limited further information is provided on these diversions. The Applicant should ensure

that the ES provides specific detailed information on this element of the Proposed Development, including plans to identify the diversions, and should ensure that any assessment is consistent with works specified within the dDCO.

- 2.3.5 It is further stated that demolition of two residential properties may be required, but in-depth details have not been provided. The ES should provide full details of the necessary demolition works and it should be clear at what point in the construction programme any demolition activities would occur. Where relevant, the Applicant should ensure that the ES aspect chapters assess the likely significant effects arising from demolition activities.
- 2.3.6 The Scoping Report states that the drainage system is yet to be finalised in terms of catchment numbers and outfall locations. The ES should provide a sufficiently clear and specific textual description of the proposed drainage arrangements, indicating the location of any proposed pipework or balancing ponds by reference to plans.
- 2.3.7 The Scoping Report states that the requirement for lighting at the Charlton Mires junction is currently being reviewed. Should the Applicant decide that lighting is required the ES should assess any impacts associated with lighting, such as light spill, as part of the relevant aspect assessments with evidence as to how this has been taken into account.
- 2.3.8 Diversions and closures of roads, footpaths and public rights of way are highlighted throughout the Scoping Report. The ES should contain a full explanation of such closures and diversions, including whether they are temporary or permanent, and associated impacts should be fully assessed. This information should also be depicted on figures in the ES to provide further clarity. The Scoping Report also states that the two existing traffic monitoring units may be replaced in order to meet current standards. Information on any such replacement will also be required in the ES, and figures should again be provided to show the location of any technology to be installed by way of upgrading.

Alternatives

- 2.3.9 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'.
- 2.3.10 The Inspectorate acknowledges the Applicant's intention to consider alternatives within the ES. The Inspectorate would expect to see a discrete section in the ES that provides details of the reasonable alternatives studied and the reasoning for the selection of the chosen option(s), including a comparison of the environmental effects.

Flexibility

- 2.3.11 The Applicant's attention is drawn to the Inspectorate's Advice Note Nine 'Using the 'Rochdale Envelope'¹, which provides details on the recommended approach to follow when incorporating flexibility into a draft DCO (dDCO).
- 2.3.12 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 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.
- 2.3.13 It should be noted that if the Proposed Development materially changes prior to submission of the DCO application, the Applicant may wish to consider requesting a new scoping opinion.

Advice Note nine: Using the Rochdale Envelope. 2012. Available at: https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/

3. ES APPROACH

3.1 Introduction

- 3.1.1 This section contains the Inspectorate's specific comments on the scope and level of detail of information to be provided in the Applicant's ES. General advice on the presentation of an ES is provided in the Inspectorate's Advice Note Seven 'Environmental Impact Assessment: Process, Preliminary Environmental Information and Environmental Statements' and associated appendices.
- 3.1.2 Aspects/ matters (as defined in Advice Note Seven) are not scoped out unless specifically addressed and justified by the Applicant, and confirmed as being scoped out by the Inspectorate. The ES should be based on the Scoping Opinion in so far as the Proposed Development remains materially the same as the Proposed Development described in the Applicant's Scoping Report.
- 3.1.3 The Inspectorate has set out in this Opinion where it has/ has not agreed to scope out certain aspects/ matters on the basis of the information available at this time. The Inspectorate is content that the receipt of a Scoping Opinion should not prevent the Applicant from subsequently agreeing with the relevant consultees to scope such aspects/ matters out of the ES, where further evidence has been provided to justify this approach. However, in order to demonstrate that the aspects/ matters have been appropriately addressed, the ES should explain the reasoning for scoping them out and justify the approach taken.
- 3.1.4 Where relevant, the ES should provide reference to how the delivery of measures proposed to prevent/ minimise adverse effects is secured through DCO requirements (or other suitably robust methods) and whether relevant consultees agree on the adequacy of the measures proposed.

3.2 Relevant National Policy Statements (NPSs)

3.2.1 Sector-specific NPSs are produced by the relevant Government Departments and set out national policy for NSIPs. They provide the framework within which the Examining Authority (ExA) will make their recommendation to the SoS and include the Government's objectives for the development of NSIPs. The NPSs may include environmental requirements for NSIPs, which Applicants should address within their ES.

Advice Note Seven: Environmental Impact Assessment: Process, Preliminary Environmental Information and Environmental Statements and annex. Available from: https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/

3.2.2 The designated NPS(s) relevant to the Proposed Development is the NPS for National Networks (NPS NN)

3.3 Scope of Assessment

General

- 3.3.1 The Inspectorate recommends that in order to assist the decision-making process, the Applicant uses tables:
 - to demonstrate how the assessment has taken account of this Opinion;
 - to identify and collate the residual effects after mitigation for each of the aspect chapters, including the relevant interrelationships and cumulative effects;
 - to set out the proposed mitigation and/ or monitoring measures including cross-reference to the means of securing such measures (eg a dDCO requirement);
 - to describe any remedial measures that are identified as being necessary following monitoring; and
 - to identify where details are contained in the Habitats Regulations Assessment (HRA report) (where relevant), such as descriptions of European sites and their locations, together with any mitigation or compensation measures, are to be found in the ES.
- 3.3.2 The Inspectorate considers that where a DCO application includes works described as 'Associated Development', that could themselves be defined as an improvement of a highway, the Applicant should ensure that the ES accompanying that application distinguishes between; effects that primarily derive from the integral works which form the proposed (or part of the proposed) NSIP and those that primarily derive from the works described as Associated Development. This could be presented in a suitably compiled summary table. This will have the benefit of giving greater confidence to the Inspectorate that what is proposed is not in fact an additional NSIP defined in accordance with s22 of the PA2008.
- 3.3.3 Some of the text in the Scoping Report, such as in the various tables and boxes, and on the figures in Appendix A, is small scale and difficult to read both on the paper and electronic copies. The Applicant is reminded that the ES should be clear and accessible to readers.

Baseline Scenario

3.3.4 The ES should include a description of the baseline scenario with and without implementation of the development as far as natural changes from the baseline scenario can be assessed with reasonable effort on the basis of the availability of environmental information and scientific knowledge.

Forecasting Methods or Evidence

- 3.3.5 The ES should contain the timescales upon which the surveys which underpin the technical assessments have been based. For clarity, this information should be provided either in the introductory chapters of the ES (with confirmation that these timescales apply to all chapters), or in each aspect chapter.
- 3.3.6 The Inspectorate expects the ES to include a chapter setting out the overarching methodology for the assessment, which clearly distinguishes effects that are 'significant' from 'non-significant' effects. Any departure from that methodology should be described in individual aspect assessment chapters.
- 3.3.7 The ES should include details of difficulties (for example technical deficiencies or lack of knowledge) encountered compiling the required information and the main uncertainties involved.

Residues and Emissions

- 3.3.8 The EIA Regulations require an estimate, by type and quantity, of expected residues and emissions. Specific reference should be made to water, air, soil and subsoil pollution, noise, vibration, light, heat, radiation and quantities and types of waste produced during the construction and operation phases, where relevant. This information should be provided in a clear and consistent fashion and may be integrated into the relevant aspect assessments.
- 3.3.9 As mentioned above, the proposals include allowance for demolition activities, including the demolition of two residential properties. The ES should also describe the anticipated volumes and types of waste to be generated from these works as well as those associated with demolition of roadway (eg road planings (potentially coal tar and non-coal tar bearing)).

Mitigation

3.3.10 Any mitigation relied upon for the purposes of the assessment should be explained in detail within the ES. The likely efficacy of the mitigation proposed should be explained with reference to residual effects. The ES should also address how any mitigation proposed is secured, with reference to specific DCO requirements or other legally binding agreements.

Risks of Major Accidents and/or Disasters

3.3.11 The ES should include a description and assessment (where relevant) of the likely significant effects resulting from accidents and disasters applicable to the Proposed Development. The Applicant should make use of appropriate guidance (e.g. that referenced in the Health and Safety Executives (HSE) Annex to Advice Note 11) to better understand the likelihood of an occurrence and the Proposed Development's susceptibility

to potential major accidents and hazards. The description and assessment should consider the vulnerability of the Proposed Development to a potential accident or disaster and also the Proposed Development's potential to cause an accident or disaster. The assessment should specifically assess significant effects resulting from the risks to human health, cultural heritage or the environment. Any measures that will be employed to prevent and control significant effects should be presented in the ES.

3.3.12 Relevant information available and obtained through risk assessments pursuant to European Union legislation such as Directive 2012/18/EU of the European Parliament and of the Council or Council Directive 2009/71/Euratom or relevant assessments carried out pursuant to national legislation may be used for this purpose provided that the requirements of this Directive are met. Where appropriate, this description should include measures envisaged to prevent or mitigate the significant adverse effects of such events on the environment and details of the preparedness for and proposed response to such emergencies.

Climate and Climate Change

3.3.13 The ES should include a description and assessment (where relevant) of the likely significant effects the Proposed Development has on climate (for example having regard to the nature and magnitude of greenhouse gas emissions) and the vulnerability of the project to climate change. Where relevant, the ES should describe and assess the adaptive capacity that has been incorporated into the design of the Proposed Development. This may include, for example, alternative measures such as changes in the use of materials or construction and design techniques that will be more resilient to risks from climate change.

Transboundary Effects

- 3.3.14 Schedule 4 Part 5 of the EIA Regulations requires a description of the likely significant transboundary effects to be provided in an ES.
- 3.3.15 The Scoping Report concludes that the Proposed Development is not likely to have significant effects on another European Economic Area (EEA) State and proposes that transboundary effects do not need to be considered within the ES. The Inspectorate notes the Applicant's conclusion in the Scoping Report; however recommends that, for the avoidance of doubt, the ES details and justifies this conclusion.

A Reference List

3.3.16 A reference list detailing the sources used for the descriptions and assessments must be included in the ES.

3.4 Confidential Information

3.4.1 In some circumstances it will be appropriate for information to be kept confidential. In particular, this may relate to information about the

presence and locations of rare or sensitive species such as badgers, rare birds and plants where disturbance, damage, persecution or commercial exploitation may result from publication of the information. Where documents are intended to remain confidential the Applicant should provide these as separate paper and electronic documents with their confidential nature clearly indicated in the title, and watermarked as such on each page. The information should not be incorporated within other documents that are intended for publication or which the Inspectorate would be required to disclose under the Environmental Information Regulations 2014.

4. ASPECT BASED SCOPING TABLES

4.1 Air Quality

(Scoping Report section 6)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.1.1	6.7.3	Assessment of impacts from increased PM _{2.5}	The Applicant proposes to scope in consideration of particulate matter PM ₁₀ but does not expressly state that PM _{2.5} is to be scoped into the assessment, and provides no justification for scoping this out. The Inspectorate does not consider that there is sufficient evidence provided in the Scoping Report to support a decision to scope this matter out of the assessment. The Inspectorate considers that the ES should include an assessment of impacts associated with all relevant pollutants under the EU ambient air quality directive, including increases of both PM _{2.5} and PM ₁₀ , resulting from the Proposed Development. In determining significance the assessment should take into account performance against relevant target/ limit values.

ID	Ref	Other points	Inspectorate's comments
4.1.2	6.2	Study area for operational impacts	The Scoping Report states that the study area for operational impacts will be determined by analysis of the Preliminary Design stage traffic data within the Traffic Reliability Area to identify the Affected Roads Network (ARN), but that this data is not currently available. For the avoidance of doubt, the assessment in the ES should be undertaken on the basis of an accurate and up to date traffic model.
4.1.3	6.2	Study area for construction impacts	The Scoping Report states that the study area for construction impacts will include areas within 200m of the site boundary for the duration of the construction phase. The Inspectorate is of the view that this is satisfactory for the assessment of dust emissions but would expect that in assessing the impacts from construction traffic the study area would be based on traffic change criteria used to define the ARN for

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ID	Ref	Other points	Inspectorate's comments
			the air quality assessments.
4.1.4	6.3.2	Local authority baseline data	The Inspectorate notes that local planning authority data and diffusion tube monitoring will be used to establish the baseline information. The assessment in the ES should be undertaken on the basis of relevant and up to date baseline information, including the dates on which monitoring was undertaken. The chosen monitoring locations should be depicted on an accompanying plan in the ES.
4.1.5	6.3.12	Applicant baseline data	The Scoping Report identifies that diffusion tube monitoring has been undertaken by the Applicant over 6 months at 8 locations between February and July 2017. This does not appear to match the advice in Defra's 'Practical Guidance on using NO ₂ diffusion tubes for LAQM' which advises that all surveys should be carried out for a minimum of six months, comprising three summer and three winter months. The Applicant should ensure that the baseline data relied on in the ES is robust and fit for purpose and make effort to agree the location of any diffusion tube monitoring with relevant consultation bodies.
4.1.6	6.3.13	Ecological receptors	The Scoping Report identifies no nationally or internationally designated sites within 200m of the Proposed Development, but states that this will be revisited upon review of the ARN. The ES should additionally assess locally and non-designated sites that could be affected by the Proposed Development in line with the DMRB HA207/07 methodology. The Applicant's approach to the identification of such sites and the need to consider other sensitive nature conservation sites should be established through consultation with the relevant statutory consultees. Any specific mitigation measures required to address the effects on these sites from NOx should be clearly identified and secured.
4.1.7	6.3.13	Human receptors	The Scoping Report does not identify any human receptors which may be affected by the impacts of the Proposed Development on air quality. The ES should clearly set out the type and quantity of both human and ecological receptors which could be affected, and identify their locations by reference to a plan. The Inspectorate notes that the Applicant's proposed methodology for the assessment (DMRB HA

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ID	Ref	Other points	Inspectorate's comments
			207/07) states that particular attention should be paid to the location of the young, elderly and other susceptible populations/receptors. The Applicant should make effort to agree which receptors should be included in the assessment with the relevant consultation bodies. If no human receptors are likely to be affected then the ES should provide a justification as to why this is the case.
4.1.8	6.5	Monitoring	The Scoping Report does not reference whether monitoring of air quality during construction or operation is likely to be required to ensure the appropriateness of mitigation. The need for and scope of monitoring during construction and operation of the Proposed Development should be addressed within the ES.
4.1.9	6.7.2	Simple level assessment	The Scoping Report suggests that a simple level assessment of the impacts from increased operational traffic on local and regional air quality is undertaken. The Applicant should ensure that the assessment in the ES fully justifies its position that a simple level assessment is appropriate.
4.1.10	6.7.14	Assessment methodology	The Scoping Report references a number of guidance documents which will inform the assessment methodology. The Applicant should make effort to agree the methodology for the assessment with relevant consultation bodies. The methodology should be clearly explained in the ES, and includes a description of how significance of effect will be determined.

4.2 Noise and Vibration

(Scoping Report section 7)

ID	Ref		Applicant's proposed matters to scope out	Inspectorate's comments
	4.2.1	N/A	N/A	No matters have been proposed to be scoped out of the assessment

ID	Ref	Other points	Inspectorate's comments
4.2.2	7.2	Study areas	The Scoping Report, proposes a 'reduced study areas' for construction noise and vibration effects and operational vibration effects. The Inspectorate considers that the study area for the assessment should be established according to the extent of the impacts and the potential for likely significant effects. The Applicant should make effort to agree the suitable study areas with relevant consultation bodies. The ES should include figures to depict the relevant study areas applied to the assessment.
4.2.3	7.2.5	Construction noise study areas	The Scoping Report states that the construction noise study area will be determined based on a review of the anticipated construction programme. The Applicant should ensure that the ES clearly sets out the anticipated construction programme and working hours, including any night time working that may be required. Details on the type, number and location of plant and equipment should also be provided, including information on simultaneous working and the length of time plant and equipment is due to be operational in order to provide justification for the final construction noise study area. The final study area with the local planning authorities and the information on the construction programme should be incorporated into the assessment of likely significant effects.
4.2.4	7.3.2	Baseline	The Scoping Report states that baseline traffic data will be verified by a noise assessment survey, subject to consultation with Northumberland County Council, but gives no specific information on

ID	Ref	Other points	Inspectorate's comments
			the proposed survey. The ES should provide details on the survey undertaken, identifying the locations where monitoring has taken place, explaining how these locations were selected, confirming when the monitoring was undertaken, and highlighting the time period covered and the weather conditions at the time. The Applicant should discuss and make efforts to agree the approach with relevant consultation bodies.
4.2.5	7.3.6	Sensitive receptors	The Scoping Report lists various general categories of noise-sensitive receptor and states that sensitive receptors will be defined once the ARN is available. The ES should clearly identify, and include assessment of, impacts to sensitive ecological and human receptors. The ES should address how receptors have been identified and chosen. This accords with the comments received from the Environment Agency, which highlight that the impact from noise should include an ecological assessment, and that sensitive receptors can include species or habitats.
4.2.6	7.3.9	Noise Important Areas (NIAs)	The Scoping Report states that no NIAs are anticipated to be within the study area. As the study area will be finalised on the basis of traffic modelling and the ARN, the Applicant should ensure that it if any NIAs do fall within the final study area the impacts associated are adequately assessed.
4.2.7	7.5	Mitigation	The Scoping Report states that appropriate mitigation will be determined once detailed assessments have been undertaken. The Applicant should ensure that the effectiveness of any proposed mitigation measures are thoroughly assessed in the ES.
4.2.8	7.7.7 - 7.7.12	Predicted vibration levels	The Scoping Report states that the assessment of vibration will be undertaken in accordance with DMRB 213/11, and S5228:2009+A1:29014, but it does not stipulate the calculation methodology according to which vibration levels during construction and operation are to be predicted. The ES should provide information on the methodology used to calculate predicted vibration levels for the purposes of the assessment.

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ID	Ref	Other points	Inspectorate's comments
4.2.	7.7.15	Assessment of construction noise	The Scoping Report highlights that BS 5228:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites refers to two methods for assessing construction noise, being the ABC method and the 5dB(A) change method. The Scoping Report states that as information on the construction activities and associated plant emerges, consideration will be given to which method is most appropriate. The Applicant should ensure that the method applied is described and justified in the ES and effort is made to agree the approach with relevant consultation bodies.
4.2.1	0 7.7.16	Assessment of construction vibration	The Scoping report refers to BS5228:2009+A1:2014 for the assessment of potential vibration during construction. However, the assessment thresholds set out in Table 5 of the Scoping Report relate to effects at residential receptor locations only. The Applicant should ensure that impacts to sensitive ecological and human receptors are also assessed where significant effects are likely to occur.

4.3 Landscape and Visual Amenity

(Scoping Report section 8)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.3.1	N/A	N/A	No matters have been proposed to be scoped out of the assessment

ID	Ref	Other points	Inspectorate's comments
4.3.2	8.2	Study area	The definition of the study area in the Scoping Report is confusing. It is not clear from the description in the Scoping Report if it will be informed by the ZTV or a prescribed 2km buffer referred to in paragraphs 8.2.4 and 8.2.5. The assessment should be based on the extent of the impacts informed by ZTV and where significant effects are likely to occur. If professional judgement is applied to support a decision relating to the ZTV, the reasoning applicable to that judgement should be clearly explained. The ZTV and the actual study area used (if they are different) should be presented on figures in the relevant chapter of the ES.
4.3.3	8.3.2	Northumberland Coast AONB	The Inspectorate notes that the Northumberland Coast AONB lies approximately 5km from the Proposed Development, and ask that consideration be given to the direct and indirect effects upon this designated landscape within the ES.
4.3.4	8.3.20	Local Landscape Character Areas	The Scoping Report states that the assessment will take into consideration the effect on regional landscape character assessments only. The Inspectorate considers that impacts to local landscape character should also be assessed where significant effects are likely.
4.3.5	8.3.27	Visual receptors	The Applicant should make effort to agree the list of receptors with relevant consultation bodies.
4.3.6	8.6	Likely significant effects –	The Scoping Report states that the Options Selection Stage assessment highlighted that the Proposed Development is not

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ID	Ref	Other points	Inspectorate's comments
		landscape receptors	anticipated to have any significant effects on landscape receptors during construction or operation, but that a detailed assessment will be undertaken. The Applicant should ensure that the detailed assessment is thoroughly outlined in the ES and that an in depth justification is provided for any conclusions reached.
4.3.7	8.6	Likely significant effects – visual receptors	The Scoping Report states that the Options Selection Stage assessment has concluded that the Proposed Development is likely to result in adverse visual impacts on various categories of receptors during both construction and operation, but provides no further details. The Applicant should ensure that the ES clearly assesses impacts associated with all elements of the Proposed Development where significant effects are likely to occur.
4.3.8	8.7.6	Landscape strategy	The Scoping Report proposes a landscape strategy to be developed in order to avoid, mitigate or enhance the road landscape. The assessments in the ES must make it clear which measures have been taken into account in the assessment of significant effects. The ES should include a clear distinction between measures intended to avoid or reduce adverse effects and those that will deliver enhancement.
4.3.9	8.7.11 ; 8.7.3; 8.7.26	Professional judgement	The Scoping Report states that professional judgement will be used for various aspects of the landscape and visual impact assessment. The use of such professional judgement should be thoroughly explained and justified within the ES.
4.3.10	8.7.23	Viewpoint locations	The Applicant should make effort to agree viewpoint locations with relevant consultation bodies.

4.4 Cultural Heritage

(Scoping Report section 9)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.4.1	9.7.1	World Heritage Sites and Historic Battlefields	The Scoping Report demonstrates an absence of these features within the study area. The Inspectorate notes that the nearest of these receptors is a considerable distance from the Proposed Development and does not consider that significant effects are likely to occur. The inspectorate agrees that these matters can be scoped out.

ID	Ref		Other points	Inspectorate's comments
	4.4.2	9.2	Study area	The Scoping Report does not specify the approach adopted to define the study area for the assessment. The Scoping Report states that the study areas is defined according to 'accepted best practice' but does not give any further justification. The ES must clearly explain and justify the approach taken to define the chosen study area.
	4.4.3	9.3.26	Receptors including Hedgerows of Historic Importance	Section 9.3.26 states that there is a high potential for the presence of hedgerows of historic importance within the scheme, but that 'any hedgerows identified as being of historic importance would be of low to medium importance as defined in the DMRB'.
				The Applicant should justify in the ES how they have established importance for relevant receptors including hedgerows with reference to the relevant field surveys undertaken. The ES should also agree the importance assigned to receptors, including historic landscape features with the relevant consultation bodies.

4.5 Biodiversity

(Scoping Report section 10)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.5.1	10.7.1	Designated statutory and non- statutory ecological sites of importance (including ancient woodland)	The applicant has scoped these out as 'the scheme is not likely to generate significant impacts upon them due to the distances between the scheme and the sites of interest'. At this stage the Scoping Report does not identify the full extents of impacts. The Inspectorate considers that impacts could extend to designated statutory and non-statutory ecological sites. On that basis the Inspectorate does not agree to scope these matters out and the ES should include an assessment where likely significant effects may occur.
4.5.2	10.7.4 and Table 66	Terrestrial Invertebrates	The Inspectorate notes an inconsistency with regard to the approach relating to Terrestrial Invertebrates. In section 10.3.40, terrestrial invertebrates are proposed to be scoped out for further surveys. However, in Table 66, they have been scoped in. Therefore, the Inspectorate does not agree to scope this matter out. An assessment should be carried out to assess where likely significant effects would occur.

ID	Ref	Other points	Inspectorate's comments
4.5.3	10.7.3	Habitats	Paragraph 10.7.3 of the Scoping Report documents the habitats and species that are likely to be present in and around the Proposed Development site and which will be scoped in to the assessment. The Scoping Report confirms that these have been established according to the zone of influence from the Proposed Development. The Scoping Report does not explain how the zone of influence has been

ID	Ref	Other points	Inspectorate's comments
			established relevant to the impacts associated with the Proposed Development. The Applicant should make effort to agree relevant study areas and survey requirements with consultation bodies.
4.5.4	10.3.3	Surveys	Chapter 10 of the Scoping Report explains that an extended Phase 1 Habitats Survey was undertaken in June 2016. However, paragraph10.3.3 of the Scoping Report highlights that the main scheme area has been extended since the Phase 1 Habitat Surveys were completed.
			The Inspectorate notes that a number of species specific surveys necessary to inform the assessment were undertaken in April 2016. These surveys will be several years old at the point of application and may not be a suitable representation of the baseline position. Paragraph 10.8.2 of the Scoping Report also indicates that survey effort was established relevant to an earlier red line boundary.
			The Applicant should consider whether new surveys should be undertaken taking into account the most current red line boundary for the Proposed Development. The Applicant should make effort to agree the need, location and timing of any targeted species surveys with consultation bodies. The Applicant should ensure that the assessment in the ES is informed by relevant and up to date information.
4.5.5	Ch 10	Criteria used to assess ecological impact and significance of effect	Chapter 10 says criteria from tables 2 and 3 of the Institute of Environmental Assessment (IEA) (1995) Guidelines for Baseline Ecological Assessment, will be used to characterise the ecological impact and determine the significance of the effect. The Inspectorate is aware that the EcIA guidelines have been updated in 2018. The applicant should ensure that the approach to the assessment is in accordance with recognised and up to date guidance.

4.6 Road Drainage and the Water Environment

(Scoping Report section 11)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.6.1	11.2.1	Surface water features and groundwater features (beyond 500m and 1km of the study area, respectively) or those not hydraulically connected to the study area.	The Applicant proposes to scope out assessment of surface and groundwater features beyond the proposed study area. However, the information provided in the Scoping Report does not detail the rationale for the approach. The Inspectorate does not agree to scope out this matter and that the ES should include an assessment where a likely significant effect may occur.
4.6.2	11.7.2	Impacts to groundwater quantity, groundwater flows and the release of contaminants.	The Scoping Report indicates that impacts associated with this matter will be assessed within the Geology and Soils aspect chapter. The Inspectorate agrees this matter can be appropriately assessed within the Geology and Soils aspect chapter.
4.6.3	11.7.2	Impacts on ecological status of water bodies.	The Inspectorate notes that ecological impacts will be included within the Biodiversity aspect chapter and therefore the Inspectorate can be appropriately assessed within the Biodiversity aspect chapter.

ID	Ref	Other points	Inspectorate's comments
4.6.4	Genera I	Design, mitigation and enhancement measures – Construction & Operation	The Inspectorate acknowledges that at this stage the details of the drainage design have not been finalised. The Scoping Report states that at each affected outfall, a detention basin would be provided to ensure that the rate of flow will be attenuated to applicable greenfield rates. The ES should describe the proposed drainage design and explain how the necessary attenuation measures and design flow rates have been taken into account. The proposed drainage design should take into account climate change scenarios and existing drainage capacity. The Applicant should make effort to agree details of the

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ID	Ref	Other points	Inspectorate's comments
			drainage design with relevant consultation bodies including the Environment Agency (EA).
4.6.5	11.5	Design, mitigation and enhancement measures – Construction & Operation	The ES should clearly describe the mitigation measures relied upon for the assessment of likely significant effects. Measures which are not an inherent part of the design should be appropriately secured.
			It is noted that the use of balancing ponds and (run off) filter systems are to be included in the in the design stage. The Applicant should make effort to agree the implementation of such measures with relevant consultation bodies.
4.6.6	11.5.1 - 11.5.2	Design, mitigation and enhancement measures – Construction	The ES should include a figure detailing the location of any temporary drainage systems to capture, manage and attenuate flow (to prevent an increase to flood risk).
4.6.7	11.5.4 - 11.5.7	Design, mitigation and enhancement measures –Operation	The ES should include a figure showing the location of proposed attenuation ponds, enhanced drainage systems, watercourse channels, watercourse crossings and other mitigation measures (e.g treatment/SuDS systems).
4.6.8	11.5.4	Design, mitigation and enhancement measures –Operation	No details of the likely hydromorphological assessment are given in the ES. The Applicant should also ensure that the assessment of hydromorphological effects in the ES considers the effects from both temporary and permanent works. The Applicant should seek to agree the methodology to be used in the assessment with the EA as far as is possible.
4.6.9	11.7.2 2	Water Framework Directive (WFD) assessment	The intention to provide a standalone WFD assessment with the findings presented in the ES is welcomed. The consultation response received from the EA, dated 6 th December 2018 (presented in Appendix 2 of this opinion) also indicates the expectancy for a full WFD assessment to be undertaken on all watercourses in the scheme area (irrespective of classification). The Applicant may find the

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ID	Ref	Other points	Inspectorate's comments
			approach described in the Inspectorate's Advice Note 18 helpful.

4.7 **Geology and Soils**

(Scoping Report section 12)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.7.1	12.3.27 & 12.7.1	Effects on Statutory & Non Statutory sites of geologic importance.	The Inspectorate agrees that there are unlikely to be impacts to sites of geologic importance (Statutory & Non Statutory) from the Proposed Development having regard to the extent of the likely impacts. Accordingly the Inspectorate agrees that these matters can be scoped out of the assessment in the ES.

ID	Ref	Other points	Inspectorate's comments
4.7.2	12.3	Baseline Conditions	This section provides a summary of the baseline conditions and that it was informed by the listed information sources including Preliminary Sources Study Reports (PSSRs). The Applicant should ensure a full description of baseline conditions is included within the ES. Information that is not readily available but which has been used to inform the baseline conditions should be clearly referenced and appended to the ES.
4.7.3	12.3.2, 12.3.7 & 12.3.16 - 12.3.18	Coal Reserves	The assessment in the ES should take into account the proximity of the Proposed Development to the Development High Risk Area identified in the consultation response by the Coal Authority. The Inspectorate considers that the assessment takes into account any impacts associated with historic mine workings. The approach to the proposed ground investigation works should take such matters into account.

ID	Ref	Other points	Inspectorate's comments
4.7.4	12.3.23	Hydrology	There are inconsistencies in the Scoping Report with regards to the study area and number of watercourses likely to experience impacts from the Proposed Development. The ES should ensure there is consistency between assessments and that relevant receptors are appropriately assessed.
4.7.5	12.3.25 & 12.3.26	Unexploded Ordnance (UXO)	Within 12.3.25, A 'Pre Desk Study Assessment' is mentioned which indicates 'no readily available records of bombing or other significant military activity. The report then goes on to state that the completion of a further detailed investigation will inform future requirements. Such an assessment should be undertaken in accordance with industry guidance, such as CIRIA 681, Unexploded ordnance (UXO) A guide for the construction industry (2009).
			Section 12.3.26 references a detailed desk study assessment undertaken for a different scheme namely, the proposed widening of the A1, between Morpeth and Felton. This report lists a strategic target as being present in proximity to the proposed development. Accordingly, the Inspectorate considers further works are required to assess the potential presence of UXO.
4.7.6	12.3.32	Waste Disposal	A historic landfill is discussed in land adjacent to the Lionheart Enterprise Park. Beyond the years of its operation, no information is forthcoming in relation to the types and volumes of wastes deposited. Due consideration will need to be given to this feature in the ES.
			The EA has identified that some of the disposal sites considered are no longer active. The Applicant should revisit this matter and ensure that appropriate disposal sites are considered.
			Being that the scheme involves some demolition of existing carriageway, consideration should be given to the potential presence of coal tar bearing materials within the road construction (a hazardous waste).

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ID	Ref	Other points	Inspectorate's comments
4.7.7	12.5.1	Design, Mitigation and Enhancement Measures – Construction and Operation	The Inspectorate notes an intention to use the Definition of Waste Code of Practice (DoWCoP) to compile a Material Management Plan (MMP). The ES should include a definition of the volumes and classification of materials to demonstrate the extent to which materials are firstly eligible for re-use and secondly, are both chemically and physically suitable (from an engineering perspective supported by an approved Earthworks Specification).
4.7.8	Chapter 12	General Comment	The Inspectorate considers that the ES should include figures that depict the location of the geology, mining hazards, hydrogeology, hydrology, unexploded ordinance (UXO), potential sources of contamination and any identified environmental receptors.

4.8 Population and Human Health

(Scoping Report section 13)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.8.1	13.7.1	Open/green space or recreational facilities within or adjacent to the scheme	The Scoping Report identifies the nearest sensitive open/green space and recreational receptors in proximity to the main components of the Proposed Development. The Scoping Report suggests that these receptors are located outside of the impact zone associated with the Proposed Development. However the Applicant does not give an approximate distance of the nearest open green space/ recreational facilities in relation to the main site compound which will be in use during the construction phase. Therefore the Inspectorate does not agree to scope out this matter and considers that an assessment of impacts to open/green space or recreational facilities should be undertaken where significant effects are likely.
4.8.2	13.7.1	Physical assets and land use during operation	The Inspectorate does not agree that these matters can be scoped out. The Scoping Report provides insufficient information in relation to likely significant effect.
4.8.3	13.7.1	Community amenity and severance during operation	The Inspectorate is aware that the construction compound areas are temporary features and will be removed upon completion of the construction phase. The Inspectorate is therefore content that impacts to community amenity and severance during operation from construction compounds can be scoped out of the assessment. However, the operational road is a permanent structure and has the potential to impact community amenity and severe key links during operation. The Inspectorate does not agree to scope this matter out of the ES and expects an assessment of any likely significant effects associated with these impacts.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.8.4	13.7.1	Local economy and employment during operation	The Inspectorate agrees that effects on local economy and employment during operation is not likely to be significant and therefore can be scoped out.
4.8.5	13.7.1	Driver views from the road for vehicle travellers on the A1 during construction and operation	The Inspectorate considers that impacts to driver views will occur during operation but are likely to be most disruptive during the construction phase of the Proposed Development. However, the Inspectorate is content that these impacts are unlikely to result in significant effects on the population and human health in general. On that basis the Inspectorate is content to scope this matter out of the ES in relation to this aspect.
4.8.6	13.7.1	Development land during construction and operation	The Scoping Report does not anticipate any significant effects on development land in relation to the main scheme and both site compounds. However, justification is not provided. Furthermore, the location of the construction works is stated to be primarily located outside of the development land, which suggests that some development land will be impacted.

ID	Ref	Other points	Inspectorate's comments
4.8.7	13.2	Study area	The study area should be defined with relevance to the extent of the anticipated impacts associated with the Proposed Development.
4.8.8	Ch 13	Electric and Magnetic Fields (EMF)	The Scoping Report does not clearly explain if works to divert nearby high voltage power cables will form part of the works that fall within the scope of the DCO application. The ES should clearly describe all works necessary to facilitate delivery of the Proposed Development and ensure that an adequate assessment of the likely significant effects associated is included in the ES. The ES should explain the extent to which the diversion of high voltage cables could lead to

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significant effects from EMF. The Applicant should make effort to agree the approach to the assessment of EMF with relevant consultation bodies			agree the approach to the assessment of EMF with relevant

4.9 Material Assets and Waste

(Scoping Report section 14)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.9.1	14.7.1	Lifecycle assessment of materials, site arisings and waste.	The Scoping Report states that the lifecycles stages of extraction of raw materials, site arisings and waste production beyond the first year of operation is unlikely to result in significant effect. The Inspectorate is content and agrees that this matter can be scoped out.
4.9.2	14.7.1	Consumption of material resources, and site arisings and waste production beyond the first year of operation.	The Inspectorate agrees that impacts associated with the consumption of material resources, site arisings and waste production during operation is unlikely to result in significant effects. On that basis the Inspectorate is content to scope this matter from the assessment

ID	Ref	Other points	Inspectorate's comments
4.9.3	14.3.1	Baseline Conditions	The Scoping report states that 'some materials' will be required and 'some waste' will be produced but does not include any specific detail regarding the quantities and type of materials and waste. The ES should include sufficient detail to ensure there is a robust description of the materials that will be required and the waste that will be produced within the ES.
4.9.4	14.3.6, 14.3.13 Table 49, 14.7.19	Sensitivity	The Scoping Report states that professional judgement has been used to assess the sensitivity of the following: materials; landfill capacity; effects from operation in the first year; and the significance of effect. No information is provided the criteria used to determine the resulting sensitivities. The ES should include a full explanation of how the sensitivity is determined and where professional judgment has been applied.

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ID	Ref	Other points	Inspectorate's comments
			The construction phase of the scheme has the potential to generate road planings/waste which contains coal tar. The ES does not consider such arisings during demolition and construction. Such materials are classified as hazardous waste and should be dealt with accordingly. The ES should assess impacts associated with these materials where significant effects are likely to occur.
4.9.5	14.4.5	Resource Sterilisation	The Scoping Report indicates that the result of transportation of material resources and waste (to and from site) is not assessed in this chapter. Instead, it directs the reader to other chapters 'as appropriate' regarding this matter. The Applicant should ensure this is addressed in the chapters listed where significant effects are likely to occur.
4.9.6	Table 49	Likely Significant Impacts	Sections 2.4.9 & 13.4.1 references two residential properties that are proposed to be demolished to facilitate the proposed development (at the proposed Charlton Mires junction). These features are not specifically referenced in demolition section of Table 49. Due consideration should be given in the ES and the impact and waste(s) generated should be factored into the assessment.

4.10 Climate

(Scoping Report section 15)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.10.1	Table 58	Construction – land use, land use change and forestry	The Scoping Report indicates this matter is to be scoped out on account of the vegetation loss as a result of the land take associated with the scheme is likely to be minimal. The Inspectorate agrees that this matter can be scoped out of the assessment due to the construction of an additional carriageway, junction and accommodation bridge are in existing agricultural areas along the existing alignment.
4.10.2	Table 58	Operation – Operation and maintenance	The Scoping Report indicates that operation and maintenance activities such as scheme lighting /maintenance visits are to be scoped out. The Inspectorate agrees that associated Greenhouse Gas (GHG) emissions likely to affect climate associated with this activity will be negligible. The Inspectorate is content to scope this matter out of the ES
4.10.3	Table 58 & 15.6.1	Decommissioning	The Scoping Report proposes to scope out decommissioning of the Proposed Development, inclusive of deconstruction, transportation of waste arisings, waste processing for recovery, and disposal. The justification given is that decommissioning would take place decades into the future, and there is uncertainty regarding the decommissioning process and associated emissions. The Inspectorate agrees that decommissioning can be scoped out of the assessment as there is insufficient detail at this stage to provide an accurate assessment and it is uncertain what scale of decommissioning works would be.

ID Ref Other points Inspectorate's comments

ID	Ref	Other points	Inspectorate's comments
4.10.4	15.3.3 0	Extreme climate change scenarios	The Scoping Report discusses changes in relative humidity. The projections for Winter mean relative humidity changes indicate a decrease 10% (under high emissions scenario) by 2050s and increase of 5% by 2080s. With respect to Summer mean humidity; a decrease of 10% by 2050s and 10% by 2080s is expected. The Inspectorate questions the anticipated increase of 5% in Winter mean humidity by 2080s. Further clarification and figures explaining this expected occurrence (and the others mentioned) should be provided in the ES.
4.10.5	15.5.1	Assumptions	The Scoping Report indicates that efforts will be made to source materials locally; no further information is forthcoming with respect to the likely buffer(s) associated with procuring materials. If the assessment in the ES seeks to rely upon any such assumptions it should be clear how they are secured with reference to relevant legally robust methods.
4.10.6	Table 56	Potential Impacts	The Scoping Report states that potential significant effects will be identified during the environmental assessment, and that the potential effects provided in Table 56 in relation to the climate resilience are not exhaustive. All potential effects considered in relation to the climate aspect chapter should be clearly outlined in the ES, providing justification for scoping additionally identified effects in or out of the assessment. The methodology to assess these effects should be clearly provided in the ES.
4.10.7	15.7.4	Guidance	The Scoping Report states that Transport Analysis Guidance Chapter 4: Greenhouse Gases will be used to inform the greenhouse gas assessment. The Inspectorate notes that this guidance is an 'appraisal methodology' intended for the development of business cases, applicable to highways and public transport interventions and not necessarily for the purposes of undertaking assessment for the ES. The Applicant should take care to ensure that the methodology

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ID	Ref	Other points	Inspectorate's comments
10	Kei		
			applied is sufficient to identify and assess the likely significant effects from the Proposed Development.
4.10.8	15.7.6	Methodology – Calculation of GHG emissions	The Scoping Report states that emission calculations will be completed within a standard carbon calculation tool. However, no further details have been provided, so the Inspectorate is unable to provide any comments on its suitability.
			The ES should clearly explain the calculation tool that is finally used and provide a justification for its selection.
4.10.9	15.7.1 4	Methodology	The Scoping Report states that the potential hazards associated with the scheme will be assessed in line with 'emerging guidance'. No detail or discussion is provided with respect to this guidance. The Applicant should ensure that full details of all guidance utilised in the assessment should be documented and appropriately referenced.
4.10.10	15.8.2	Assessment Assumptions	The Scoping Report states that no guidance or carbon emissions thresholds currently exist when considering GHG to determine significance for the climate aspect chapter.
			No methodology or significance criteria has been provided, therefore the Inspectorate is unable to provide comment on the suitability of the criteria to be used. The climate aspect chapter should clearly state how significance has been determined, and where professional judgement has been applied.
4.10.11	15.8.3	UKCP09 Projections	The Scoping Report states the climate resilience assessment will utilise UK Climate Projections (UKCP09). As set out in the NPS NN the assessment of potential impacts of climate change should take into account the latest UK Climate Projections available at the time. The assessment in the ES should therefore take account of the UKCP18 projections as these will be available before the ES is finalised.

4.11 Assessment of Cumulative Effects

(Scoping Report section 16)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.11.1	N/A	N/A	No matters have been proposed to be scoped out of the assessment

ID	Ref	Other points	Inspectorate's comments
4.11.2	16.1.6	Study area	While it is noted that the spatial extent of study areas for both non-traffic related topics and traffic related topics is based on guidance in the DMRB, it is not clear which aspects or matters would be classed as non-traffic related. In addition the Scoping Report does not explain why a distance of 500m for the traffic related topics would be sufficient to capture all the potential interactions with other developments which could lead to significant effects. The ES must provide a clear justification for the adequacy of the study area and effort should be made to agree the approach with relevant stakeholders, including the public and statutory environmental bodies. The Applicant may find the approach described in the Inspectorate's Advice Note 17 helpful.
4.11.3	16.1.1 6	Significance criteria	The Scoping Report explains at paragraph 16.1.5 that the cumulative assessment will be based upon expert professional judgement, and specifically at paragraph 16.1.6 that criteria to determine the significance of effects will be based on Table 2.6 of DMRB HA 205/08 and professional judgement. The ES must clearly explain where professional judgement has been applied and the reasoning behind it.
4.11.4	16.2.1	Assessment of combined effects	The receptors considered will only include those that are likely to experience potential residual significant effects from more than one topic area. This appears to ignore the possibility that interaction between non-significant residual effects could also lead to a significant combined effect, which the Inspectorate would expect to see assessed

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ID	Ref	Other points	Inspectorate's comments
			in the ES.

5. INFORMATION SOURCES

- 5.1.1 The Inspectorate's National Infrastructure Planning website includes links to a range of advice regarding the making of applications and environmental procedures, these include:
 - Pre-application prospectus³
 - Planning Inspectorate advice notes⁴:
 - Advice Note Three: EIA Notification and Consultation;
 - Advice Note Four: Section 52: Obtaining information about interests in land (Planning Act 2008);
 - Advice Note Five: Section 53: Rights of Entry (Planning Act 2008);
 - Advice Note Seven: Environmental Impact Assessment: Process, Preliminary Environmental Information and Environmental Statements;
 - Advice Note Nine: Using the 'Rochdale Envelope';
 - Advice Note Ten: Habitat Regulations Assessment relevant to nationally significant infrastructure projects (includes discussion of Evidence Plan process);
 - Advice Note Twelve: Transboundary Impacts;
 - Advice Note Seventeen: Cumulative Effects Assessment; and
 - Advice Note Eighteen: The Water Framework Directive.
- 5.1.2 Applicants are also advised to review the list of information required to be submitted within an application for Development as set out in The Infrastructure Planning (Applications: Prescribed Forms and Procedures) Regulations 2009.

The Planning Inspectorate's pre-application services for applicants. Available from: https://infrastructure.planninginspectorate.gov.uk/application-process/pre-application-service-for-applicants/

The Planning Inspectorate's series of advice notes in relation to the Planning Act 2008 process. Available from: https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/

APPENDIX 1: CONSULTATION BODIES FORMALLY CONSULTED

TABLE A1: PRESCRIBED CONSULTATION BODIES⁵

SCHEDULE 1 DESCRIPTION	ORGANISATION
The Health and Safety Executive	Health and Safety Executive
The National Health Service Commissioning Board	NHS England
The relevant Clinical Commissioning Group	NHS Northumberland Clinical Commissioning Group
Natural England	Natural England
The Historic Buildings and Monuments Commission for England	Historic England - North East
The relevant fire and rescue authority	Northumberland Fire and Rescue Service
The relevant police and crime commissioner	Northumbria Police and Crime Commisioner
The relevant parish council(s) or,	Eglingham Parish Council
where the application relates to land	Rennington Parish Council
[in] Wales or Scotland, the relevant	Denwick Parish Council
community council	Longhoughton Parish Council
T	Thirston Parish Council
The Environment Agency	The Environment Agency - North East
The Relevant Highways Authority	Northumberland County Council Highways Authority
The relevant strategic highways company	Highways England - Yorkshire & North East
The Coal Authority	The Coal Authority
Public Health England, an executive agency of the Department of Health	Public Health England

Schedule 1 of The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (the 'APFP Regulations')

SCHEDULE 1 DESCRIPTION	ORGANISATION
The Crown Estate Commissioners	The Crown Estate
The Forestry Commission	Forestry Commission - Yorkshire and North East Area
The Secretary of State for Defence	Ministry of Defence

TABLE A2: RELEVANT STATUTORY UNDERTAKERS⁶

STATUTORY UNDERTAKER	ORGANISATION
The relevant NHS Foundation Trust	North East Ambulance Service NHS Foundation Trust
Railways	Highways England Historical Railways Estate
Universal Service Provider	Royal Mail Group
Homes and Communities Agency	Homes England
The relevant water and sewage undertaker	Northumbrian Water
The relevant public gas transporter	Cadent Gas Limited
	Energetics Gas Limited
	Energy Assets Pipelines Limited
	ES Pipelines Ltd
	ESP Connections Ltd
	Fulcrum Pipelines Limited
	Harlaxton Gas Networks Limited
	GTC Pipelines Limited
	Independent Pipelines Limited
	Indigo Pipelines Limited
	Murphy Gas Networks limited
	Quadrant Pipelines Limited
	National Grid Gas Plc
	Scotland Gas Networks Plc

⁶ 'Statutory Undertaker' is defined in the APFP Regulations as having the same meaning as in Section 127 of the Planning Act 2008 (PA2008)

STATUTORY UNDERTAKER	ORGANISATION
	Northern Gas Networks Limited
The relevant electricity distributor with	Eclipse Power Network Limited
CPO Powers	Energetics Electricity Limited
CI O I OWEIS	Energy Assets Networks Limited
	Energy Assets Power Networks Limited
	Fulcrum Electricity Assets Limited
	Harlaxton Energy Networks Limited
	Independent Power Networks Limited
	Leep Electricity Networks Limited
	Murphy Power Distribution Limited
	The Electricity Network Company
	Limited
	UK Power Distribution Limited
	Utility Assets Limited
	Vattenfall Networks Limited
	Northern Powergrid (Northeast) Limited

TABLE A3: SECTION 43 CONSULTEES (FOR THE PURPOSES OF SECTION 42(1)(B))⁷

LOCAL AUTHORITY ⁸
Northumberland County Council
Northumberland National Park Authority
North Tyneside District Council
Gateshead District Council
Durham County Council
Cumbria County Council
Carlisle District Council
Eden District Council
Newcastle City Council

⁷ Sections 43 and 42(B) of the PA2008

⁸ As defined in Section 43(3) of the PA2008

LOCAL AUTHORITY ⁸

TABLE A4: NON-PRESCRIBED CONSULTATION BODIES

	ORGANISATION
North East Combined Authority	

APPENDIX 2: RESPONDENTS TO CONSULTATION AND COPIES OF REPLIES

Consultation bodies who replied by the statutory deadline:

Carlisle City Council
Coal Authority
Cumbria County Council
Eden District Council
Environment Agency
Forestry Commission
Harlaxton Energy Networks Ltd
Harlaxton Gas Networks Ltd
Health and Safety Executive
Historic England
National Grid
Natural England
Northern Gas Networks
Northumberland County Council
Public Health England



RLISLE Economic Development Directorate

Y-GOUNCIL Director - J E Meek BSc (Hons) Dip TP MRTPI

Civic Centre • Carlisle • CA3 8QG

Telephone: (01228) 817000 • Fax: (01228) 817115

www.carlisle.gov.uk Type talk please ring 0800 95 95 98 www.carlisle.gov.uk www.discovercarlisle.co.uk

Gail Boyle Senior EIA and Land Rights Advisor Major Casework Directorate Temple Quay House 2 The Square Bristol BS1 6PN Please ask for: Direct Line: Email: Your ref: Our ref:

Chris Hardman 01228 817502 chris.hardman@carlisle.gov.uk TR010053-000003 CH/01NSIP01

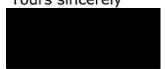
15 November 2018

Dear Gail Boyle

PLANNING ACT 2008 (AS AMENDED) AND THE INFRASTRUCTURE PLANNING (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2017 (THE EIA REGULATIONS – REGULATION 10 AND 11 APPLICATION BY HIGHWAYS ENGLAND (THE APPLICANT) FOR AN ORDER GRANTING DEVELOPMENT CONSENT FOR THE A1 ALNWICK TO ELLINGHAM IMPROVEMENT SCHEME (THE PROPOSED DEVELOPMENT) SCOPING CONSULTATION AND NOTIFICATION OF THE APPLICANT'S CONTACT DETAILS AND DUTY TO MAKE AVAILABLE INFORMATION TO THE APPLICANT IF REQUESTED

Thank you for consulting Carlisle City Council on the above scoping opinion. The City Council has no comments to make.

Yours sincerely



Chris Hardman

Development Manager

PINS RECEIVED







200 Lichfield Lane Berry Hill Mansfield Nottinghamshire NG18 4RG

Tel: 01623 637 119 (Planning Enquiries)

Email: planningconsultation@coal.gov.uk

Web: www.gov.uk/coalauthority

<u>For the Attention of: Gail Boyle - Senior EIA and Land Rights Advisor</u> on behalf of the Secretary of State

[By Email: environmentalservices@pins.gsi.gov.uk]

03 December 2018

Dear Ms Boyle

TR010053-000003

Planning Act 2008 (as amended) and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017(the EIA Regulations) – Regulations 10 and 11

Application by Highways England (the Applicant) for an Order granting Development Consent for the A1 Alnwick to Ellingham Improvement Scheme (the Proposed Development)

Scoping consultation and notification of the Applicant's contact details and duty to make available information to the Applicant if requested

Thank you for your consultation letter of 08 November 2018 seeking the views of the Coal Authority on the above proposal.

The Coal Authority is a non-departmental public body sponsored by the Department of Business, Energy & Industrial Strategy. As a statutory consultee, The Coal Authority has a duty to respond to planning applications and development plans in order to protect the public and the environment in mining areas.

The Coal Authority Response

The proposed EIA development (as per Drawing No. PO2 (Figure A1 – Scheme Location Plan)) is located within the defined Development High Risk Area, therefore specific parts of the site have been subject to past coal mining activity and located within an area of surface coal resource.

We concur with Section 12.3.7 that the main compound areas are not within the Development High Risk Area however there are certain sections of the scheme that may

have been subject to historic coal mining activity which are likely to require further assessments to be carried out. Section 12.3.16 – 18 of the Environmental Impact Assessment Scoping Report identifies that it is not possible to rule out the presence of coal workings beneath the site and Section 12.3.2 identifies that ground investigation works are proposed and the additional information obtained will be used to inform Section 12: Geology and Soils of the Environmental Statement.

In accordance with our consultation requirements, we look forward to receiving the planning application and Environmental Statement based on the above for comment in due course.

Yours sincerely

D Roberts

Deb Roberts M.Sc.MRTPI **Planning Liaison Officer**

Disclaimer

The above consultation response is provided by The Coal Authority as a Statutory Consultee and is based upon the latest available data on the date of the response, and electronic consultation records held by The Coal Authority since 1 April 2013. The comments made are also based upon only the information provided to The Coal Authority by the Local Planning Authority and/or has been published on the Council's website for consultation purposes in relation to this specific planning application. The views and conclusions contained in this response may be subject to review and amendment by The Coal Authority if additional or new data/information (such as a revised Coal Mining Risk Assessment) is provided by the Local Planning Authority or the Applicant for consultation purposes.

From: Megson, Philip
To: Environmental Services

Subject: A1 Alnwick - Ellingham Improvement Scheme

Date: 15 November 2018 12:30:48

Your ref: TR010053-000003

Thank you for your letter dated 8 November 2018 inviting comments on the A1 Alnwick – Ellingham Improvement Scheme.

I confirm that we do not have any comments.

Phil Megson

Infrastructure Planning Officer | Infrastructure Planning Team Economy & Infrastructure | Economy & Environment | Cumbria County Council Parkhouse Building | Kingmoor Business Park | Carlisle | CA6 4SJ

www.cumbria.gov.uk

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From: <u>Kath Joynt</u> on behalf of <u>planning services</u>

To: Environmental Services

Subject: RE: TR010053 - A1 Alnwick to Ellingham Improvement Scheme - EIA Scoping Notification and Consultation

Date: 22 November 2018 11:05:46

Good Morning,

Thank you for your email.

We have no comments to make in regard to this consultation.

Kind Regards

Kath Joynt Planning Technician Planning Services Team

Eden District Council Mansion House Friargate Penrith Cumbria CA11 7YG

Tel - 01768212271

www.eden.gov.uk www.twitter.com/EdenCouncil www.facebook.com/EdenDistrictCouncil

From: Environmental Services [mailto:environmentalservices@pins.gsi.gov.uk]

Sent: 08 November 2018 10:30

Subject: TR010053 - A1 Alnwick to Ellingham Improvement Scheme - EIA Scoping Notification and

Consultation

FAO Head of Planning

Dear Sir/Madam

Please see the attached correspondence regarding the proposed A1 Alnwick to Ellingham Improvement Scheme.

Please note the deadline for the consultation is 6 December 2018, which is a statutory deadline that cannot be extended.

Kind Regards

Richard White

EIA and Land Rights Advisor Major Applications & Plans

The Planning Inspectorate, Temple Quay House, Temple Quay, Bristol, BS1

Direct line: 0303 444 5593 Helpline: 0303 444 5000



Gail Boyle
Senior EIA and Land Rights Advisor
Planning Inspectorate
Major Casework Directorate
Temple Quay House
2 The Square
Bristol

Our ref: NA/2018/114335/01-L01

06 December 2018

Your ref: TR010053-000003

Dear Gail

BS1 6PN

A1 ALNWICK TO ELLINGHAM IMPROVEMENT SCHEME A1 ALNWICK TO ELLINGHAM IMPROVEMENT SCHEME

Date:

Thank you for referring the above Scoping Opinion which we received 8 November 2018.

Having reviewed the supporting documentation, we would expect the following matters to be dealt with as part of any Development Consent Order (DCO) of these works.

Biodiversity

In the absence of the full suite of surveys it is difficult to comment on any additional assessment Highways England would need to take. That being said, the current level of assessments is thorough and methodology does not raise any concerns.

We support references to Highways England's Biodiversity Plan and the assessment of the scheme against the No Net Loss requirements. The proposed development should seek to ensure that any compensatory works maximise the ecological benefits through consideration of all options available, and through an appropriate consultation to include the Environment Agency. Engagement with the Environment Agency should be sought at each stage in line with the Highways England Biodiversity Plan statements:

Part 1 - 5.0.2 - "Other government bodies, particularly Defra and Natural England – as they set national policy to support biodiversity".

Tyneside House, Skinnerburn Road, Newcastle Business Park, Newcastle upon Tyne, NE4 7AR. Customer services line: 03708 506 506 Email: enquiries@environment-agency.gov.uk www.environment-agency.gov.uk





Part 2 – Outcome 3, Action 3.3 - "Project teams to liaise with local wildlife partners as part of their project design and development to identify how the project could best contribute towards landscape-scale biodiversity gains. Information on these opportunities to be provided to the relevant regional programme board and technical working group".

The Statutory Designated Sites included in the scope are sufficient. Although no designated sites lie within the scheme area, Natural England may need to be consulted regarding the impact on the nearby sites.

The habitats of importance identified as part of the phase 1 Habitat Survey 2016 appears to be assessed at an appropriate level for this stage, likewise the surveys for Protected Species or species of importance. However, in order to ensure that the proposed development can be fully assessed, we would expect a full suite of species surveys to be undertaken as part of the DCO submission.

Water Framework Directive (WFD)

A full WFD assessment will need to be carried out to ensure the proposed development does not result in any WFD deteriorations. A WFD Assessment should be carried out on all watercourses with the scheme area. This should assess the impact upon all WFD qualifying elements of all watercourses, regardless if Main River or Ordinary Watercourse.

Under WFD, we would wish to see any works contribute to maintenance of the current status or an improvement, not a decline. As the route crosses several failing waterbodies, it is vital that the proposed development does not prevent future improvement of these waterbodies and where appropriate identify compensatory works.

With respect to the methodology, consideration will need to be given to the following:

- Will expansion of the A1 lead to deterioration of WFD status of waterbodies within the proposed are of works?
- Will expansion of the A1 compromise the achievement of GOOD status in any of the WFD water bodies?
- Will expansion of the A1 contribute towards a cumulative deterioration of WFD status or prevent cumulative enhancement of WFD status?
- Will expansion of the A1 compromise the achievement of WFD objectives in those waterbodies that are hydrologically linked?
- Can expansion of the A1 support the delivery of those measures identified in the current River Basin management Plan that are required to achieve waterbody objective?
- Statement of compliance with WFD

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Assessment Process

- Stage 1: Pre-screening;
- Stage 2: Screening; Look at each WFD quality element within each catchment potential impact on status is further assessment required?
- Stage 3: Further assessment; followed by, if required;
- Stage 4: Identification and evaluation of measures; and Stage 5 Article 4.7 considerations

The above should be considered for both potential WFD impacts during construction and following completion of construction once the new stretch of A1 is operational.

Guidance on WFD assessments is set out in the Environment Agency's 'Clearing the Waters for All' publication. Although this guidance specifically relates to estuarine and coastal water bodies, the principles can be applied to surface water bodies. The publication is available at

https://www.gov.uk/guidance/water-framework-directive-assessment-estuarine-and-coastal-waters

Road Drainage

Sections 2.4.14/15 &11.3.9 states that the existing highway drainage would not be re-used and highway drains are likely to discharge to Ordinary Watercourses. With this in mind, it is vital that Highway England go over and above to ensure that the quality of the water entering the watercourses from the highway is as clean as it can be, ensuring no risk of WFD deterioration.

Due to the potential impact on water quality, we would like to see any drainage directed into balancing ponds and runoff to be attenuated in wetland filter systems. These should be appropriate to the landscape and should seek to enhance the biodiversity of the area, supporting native flora and fauna where possible.

Hydromorphology

There are no details as to what assessment will be used to assess the current hydromorphological condition and how the construction and permanent works will affect this. River Habitat Survey, watercourse crossing surveys, geomorphological surveys will be required to support the hydromorphology assessment.

We welcome the recognition that there is potential significant impact on the condition of watercourses during construction and operation, as stated in paragraph 11.4.1 and also in 11.6. Therefore, it is vital that all watercourse crossing surveys should demonstrate how the temporary works will be carried out, and the impact they will have on the hydromorphology, especially relating to the simplifying of channels and how this will be mitigated against. This impact upon the hydromorphology should then be used to directly assess the impact upon ecology including fish and their habitat, invertebrates and macrophytes. This

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could be incorporated into the WFD Assessment and mitigation included where appropriate. Where any stabilisation to banks is required, we would like to see soft engineering considered as a priority, before hard engineering techniques are used.

Fish Passage

Improved fish passage is welcomed and river continuity and processes at crossing points supported. Where river crossings are to be undertaken, we would require these to be open and not pose a barrier to migrating fish.

Culverts

Section 2.4.11: culverts (2.4.11) states that nine new culverts are proposed and modification to one existing. The Environment Agency does not support the culverting of watercourses and therefore justification should be provided to demonstrate there is no reasonably practicable alternative. Also, the possibility of replacing existing culverts with bridges or in the very least, modifying them to improve fish passage and local habitats should be considered.

The culverting of watercourses will result in habitat loss. Options for mitigating this habitat loss within the waterbodies effected should be explored. The Environment Agency would be happy to discuss options for this.

Materials and Waste

Surveys should be undertaken to identify the risks present within the scheme area and detailed method statement will be required to ensure the appropriate control and where possible eradication of any Invasive Non-Native Species.

Pollution Prevention

Any oils, and fuels stored on either compounds should be stored in bunded areas in accordance with the Oil storage regulations. Where possible the storage of oils and fuels should be at least 10m from any watercourses to prevent pollution occurring

Noise and Vibration

Whilst this appears to have been considered in detail, it is not clear whether the impact from noise will include any ecological assessment. Sensitive receptors can include species or habitats and we would like to see this incorporated into the assessment methodology.

Northumberland Rivers Trust Catchment Partnership.

The Northumberland Rivers Trust host the Northumberland Rivers Catchment Partnership. They have identified a number of potential projects within the Northumberland Catchment that could act a mitigation/enhancement measures for this scheme. Please contact pkerr@sky.com or

Tyneside House, Skinnerburn Road, Newcastle Business Park, Newcastle upon Tyne, NE4 7AR. Customer services line: 03708 506 506

Email: enquiries@environment-agency.gov.uk

www.environment-agency.gov.uk





<u>Heather.harrison@environment-agency.gov.uk</u> to discuss this list of projects further.

The Northumberland Rivers Trust have recently submitted a bid for the Water Environment Grant (WEG) to improve fish passage along the River Aln and its tributaries near Alnwick. If successful, there will be a significant amount of investment, in the region of £590,000 within the River Aln catchment to improve fish passage. With this in mind, Highways England should consider improving fish passage on all their assets within the Aln catchment to support this project.

Waste

With respect to table 45: landfill sites in the North East of England, it should be noted that two of the sites listed within the table are no longer available as disposal outlets. The Path Head landfill and CLE3/8 sites are non-operational.

Section 14.3.19 states that a proportion of any waste generated will be suitable for recovery at a licenced facility. The public register of licenced facilities is available on GOV.UK and can be used to check the permitted status of a waste facilities. Or a request for information should be sent to northeast-newcastle@environment-agency.gov.uk. Please note that requests for data can take up to 20 working days.

The scoping report fails to make reference to tar bound road plannings that may be generated during the proposed works. Tar bound road plannings must be assessed as part of the DCO submission. In particular, we would welcome consideration to whether there are any tar bound road plannings within the proposed development site. If so, how will it be disposed off? Will it be treated on site? How will it be treated?

Flood Risk

There are opportunities to reduce the existing flood risk on some of the watercourses and Sustainable Drainage Systems (SUDS) to be created. However, this needs to be directed away from land that is in within the floodplain. It is recommended that Highway England engages the Lead Local Flood Authority (LLFA) on this matter

The scoping report states that all crossing assessments will include the current climate change allowances and as such, we are satisfied that the crossing will be adequately sized for now and for the future. It should be noted that updated climate change allowances were published on 26 November 2018 and will need to be taken into consideration as part of the DCO application.

The proposed crossings are all located within Ordinary Watercourses. The hydraulic modelling and/or culvert master assessments should be assessed by the LLFA.

Tyneside House, Skinnerburn Road, Newcastle Business Park, Newcastle upon Tyne, NE4 7AR. Customer services line: 03708 506 506

Email: enquiries@environment-agency.gov.uk

www.environment-agency.gov.uk





Please do not hesitate to contact me if you have any questions regarding this letter.

Yours sincerely

Lucy Mo Planning Technical Specialist - Sustainable Places

Direct dial 020847 46524 Direct e-mail lucy.mo@environment-agency.gov.uk

Tyneside House, Skinnerburn Road, Newcastle Business Park, Newcastle upon Tyne, NE4 7AR. Customer services line: 03708 506 506 Email: enquiries@environment-agency.gov.uk www.environment-agency.gov.uk





Yorkshire & North East

Foss House Kings Pool 1-2 Peasholme Green York YO1 7PX

Tel 0300 067 4900

yorkshirenortheast@forestry.gsi.gov.uk

Area Director

Crispin Thorn

Date: 23rd February 2018

Our ref: YNE/02/I&R/Statutory/2018

Your ref: TR010053 - 000003

Gail Boyle Senior EIA and Land Rights Advisor Major Casework Directorate Temple Quay House 2 The Square Bristol, BS1 6PN

BY EMAIL ONLY

Dear Ms Boyle,

Planning Act 2008 (as amended) and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017(the EIA Regulations) – Regulations 10 and 11

Application by Highways England (the Applicant) for an Order granting Development Consent for the A1 Alnwick to Ellingham Improvement Scheme (the Proposed Development)

Location: A1 Northumberland – Alnwick to Ellingham

Thank you for seeking our advice on the scope of the Environmental Statement (ES) in your consultation dated 8^{th} November 2018.

The Forestry Commission is the Government experts on forestry & woodland and a statutory consultee (as defined by Schedule 1 of The Infrastructure Planning (Applications: Prescribed Forms and Procedures) Regulations 2009)^[1] for major infrastructure (Nationally Significant Infrastructure Projects (NSIPS)) that are likely to affect the protection or expansion of forests and woodlands (Planning Act 2008).

^[1] http://www.legislation.gov.uk/uksi/2009/2264/contents/made



The Forestry Commission's responsibility is to discharge its consultee roles as efficiently, effectively and professionally as possible, based on the forestry principles set out in the The UK Forestry Standard (4th edition published 2017). Page 23 "Areas of woodland are material considerations in the planning process and may be protected in local authority Area Plans. These plans pay particular attention to woods listed on the Ancient Woodland Inventory and areas identified as Sites of Local Nature Conservation Importance (SLNCIs).

As highlighted in the *Irreplaceable habitats including ancient woodland and veteran trees* section of the National Policy Statement National Networks (NPSNN):

Paragraph 5.32

"Ancient woodland is a valuable biodiversity resource both for its diversity of species and for its longevity as woodland. Once lost it cannot be recreated. The Secretary of State should not grant development consent for any development that would result in the loss or deterioration of irreplaceable habitats including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the national need for and benefits of the development, in that location, clearly outweigh the loss. Aged or veteran trees found outside ancient woodland are also particularly valuable for biodiversity and their loss should be avoided. Where such trees would be affected by development proposals, the applicant should set out proposals for their conservation or, where their loss is unavoidable, the reasons for this."

The Forestry Commission has also prepared joint <u>standing advice</u> with Natural England on ancient woodland and veteran trees which we refer you to as it notes that ancient woodland is an irreplaceable habitat, and that, in planning decisions, Plantations on Ancient Woodland Sites (PAWS) should be treated equally in terms of the protection afforded to ancient woodland. It highlights the Ancient Woodland Inventory as a way to find out if woodland is ancient.

In relation to the main compound 10.30.46 I would refer you to the previous consultations for the A1 in Northumberland: Morpeth to Felton Scheme from the Forestry Commission to the Planning Inspectorate Forestry Commission ref YNE/02/I&R/Statutory/2018.

The Forestry Commission is essentially satisfied with what has been scoped in and out, as well as the level of assessment of what has been scoped in as described in the Assessment Methodology 10.7.1. Although we would seek confirmation that the desk study for Ancient Woodland mentioned has been carried out by using the Natural England's Ancient Woodland Inventory in accordance to the standing advice mentioned above. We are keen to engage with the Highways Agency and their consultants in relation to "Lowland mixed deciduous woodland – encompassing broadleaved/mixed/coniferous plantation and broadleaved semi-natural woodland recorded on Site", particularly those sites that currently have Forestry Commission current approved Management Plans and have had grants in the past. We have no further comments at this stage of the process.

If you wish to consult us further in relation to the Environmental Statement with the Forestry Commission please contact the Yorkshire and North East Office at the above address.

Yours sincerely



Jim Smith Local Partnership Adviser

From: <u>Karen Thorpe</u>

To: <u>Environmental Services</u>

Subject: A1 Alnwick to Ellingham Improvement Scheme

Date: 21 November 2018 13:51:31

Attachments: <u>image001.png</u>

image003.png image008.png image010.png image011.png image012.png

Good afternoon,

Thank you for sending the relevant information and material regarding the A1 Alnwick to Ellingham Improvement Scheme.

Harlaxton Energy Networks Ltd. at this time has no assets in the area, and will not be implementing any in the near future, therefore Harlaxton has no comment to make on this project.

Kind Regards

Karen Thorpe Distribution Administrator 0844 800 1813

















Visit our website harlaxtonenergynetworks.co.uk and explore at your leisure



Toll Bar Road, Marston, Grantham, Lincolnshire, NG32 2HT Registered Company Number: 7330883

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From: Karen Thorpe

To: <u>Environmental Services</u>

Subject: A1 Alnwick to Ellingham Improvement Scheme

Date: 21 November 2018 13:52:57

Attachments: <u>image002.png</u>

Good afternoon.

Thank you for sending the relevant information and material regarding the A1 Alnwick to Ellingham Improvement Scheme.

Harlaxton Gas Networks Ltd. at this time has no assets in the area, and will not be implementing any in the near future, therefore Harlaxton has no comment to make on this project.

Kind Regards

Karen Thorpe Distribution Administration Assistant



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CEMHD Policy - Land Use Planning NSIP Consultations Building 1.2, Redgrave Court Merton Road, Bootle Merseyside, L20 7HS

Your ref: TR010053 Our ref: 4.2.1.6524

HSE email: NSIP.applications@hse.gov.uk

Richard White The Planning Inspectorate Bristol BS1 6PN By e-mail

06/12/2018

Dear Richard

PROPOSED A1 ALNWICK TO ELLINGHAM IMPROVEMENT SCHEME - EIA scoping consultation (the project) PROPOSAL BY HIGHWAYS ENGLAND (the applicant) INFRASTRUCTURE PLANNING (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2017 (as amended) – Regulations 10 and 11

Thank you for your letter of 8th November 2018 regarding the information to be provided in an environmental statement relating to the above project. HSE does not comment on EIA Scoping Reports but the following information is likely to be useful to the applicant.

HSE's land use planning advice

Will the proposed development fall within any of HSE's consultation distances?

'Figure A1 – Scheme Location Plan' in the EIA Scoping Report dated November 2018 has been cross checked against the consultation zone information contained within the CZ Mapper Tool. The scheme boundary does not cross any Consultation zones associated with Major Hazard sites or pipelines.

Hazardous Substance Consent

It is unlikely that Hazardous Substances Consent will be required for the improvement of a major road so there are unlikely to be any risks to the public from the scheme.

Consideration of risk assessments

Regulation 5(4) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 requires the assessment of significant effects to include, where relevant, the expected significant effects arising from the proposed development's vulnerability to major accidents. HSE's role on NSIPs is summarised in the following Advice Note 11 An Annex on the Planning Inspectorate's website - Annex G - The Health and Safety Executive. This document includes consideration of risk assessments on page 3.

Explosives sites

HSE has no comment to make as there are no licensed explosive sites in the vicinity.

Electrical Safety

No comment from a planning perspective.

Please send any further electronic communication on this project directly to the HSE's designated e-mail account for NSIP applications. Alternatively, any hard copy correspondence should be sent to:

Mr Dave Adams (MHPD) NSIP Consultations 1.2 Redgrave Court Merton Road, Bootle, Merseyside L20 7HS

Yours sincerely,



Dave Adams (CEMHD4 Policy)



NORTH EAST OFFICE

Ms Gail Boyle
The Planning Inspectorate
Major Casework Directorate
Temple Quay House
2 The Square
Bristol
BS1 6PN

Direct Dial: 0191-2691240

Our ref: PL00501305

4 December 2018

Dear Ms Boyle

Re: Application by Highways England for an Order granting Development Consent for the A1 Alnwick to Ellingham Improvement Scheme: ENVIRONMENTAL IMPACT ASSESSMENT (EIA) SCOPING OPINION

Thank you for your letter of 8th November 2018 consulting us about the above EIA Scoping Report Opinion.

This development could, potentially, have an impact upon a significant number of designated heritage assets and their settings in the area around the site. In line with the advice in the National Planning Policy Framework (NPPF), we would expect the Environmental Statement to contain a thorough assessment of the likely effects which the proposed development might have upon those elements which contribute to the significance of these assets.

Our initial assessment agrees with the list of designated heritage assets within 1 km of the proposed development as identified by the EIA Scoping Report in Figure A.3. Designated Heritage Assets, Appendix A.

We would also expect the Environmental Statement to consider the potential impacts on non-designated features of historic, architectural, archaeological or artistic interest, since these can also be of national importance and make an important contribution to the character and local distinctiveness of an area and sense of place. This information is available via the local authority Historic Environment Record (www.keystothepast.info) and relevant local authority staff. The EIA Scoping Report does identify a number of non-designated assets within a 500m study area of the proposed development as identified by the EIA Scoping Report in Figure A.4. Non-designated Heritage Assets, Appendix A.

The assessment should also take account of the potential impact which associated activities (such as construction, servicing and maintenance, and associated traffic) might have upon perceptions, understanding and appreciation of the heritage assets in







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the area. The assessment should also consider, where appropriate, the likelihood of alterations to drainage patterns that might lead to in situ decomposition or destruction of below ground archaeological remains and deposits, and can also lead to subsidence of buildings and monuments. The EIA Scoping Report does consider potential impacts (construction and operational) on below-ground archaeological remains and earthworks and on historic buildings, registered park and garden and conservation areas.

Given the scale of the proposed development and the surrounding landscape character, this development is likely to be visible across a very large area and could, as a result, affect the significance of heritage assets at some distance from this site itself. We would expect the assessment to clearly demonstrate that the extent of the proposed study area is of the appropriate size to ensure that all heritage assets likely to be affected by this development have been included and can be properly assessed. The Scoping Report does include a Visual Envelope Plan in Figure A.6, Appendix A. 2, with a 2 km and 5 km study areas.

It is important that the assessment is designed to ensure that all impacts are fully understood. Section drawings and techniques such as photomontages are a useful part of this. This would be of particular importance in relation to the two proposed new junctions and most particularly in relation to the likely impacts of the proposed Broxfield overbridge on to the grade I Alnwick Park and Garden.

We would strongly recommend that you involve the Northumberland County Council Conservation Officer and archaeological advisers in the development of this assessment. They are best placed to advise on local historic environment issues and priorities; how the proposal can be tailored to avoid and minimise potential adverse impacts on the historic environment; the nature and design of any required mitigation measures; and opportunities for securing wider benefits for the future conservation and management of heritage assets.

We would like to highlight that any trial trenching will require Scheduled Monument Consent - as identified in paragraph 9.5.1 of the EIA Scoping Report. This will likely be prior to determination of the consent in order to better understand the nature of the archaeology and to inform suitable mitigation strategies.

The setting assessment should follow best practice standards and guidance as set out in "Good Practice Advice in Planning - Note 3: The Setting of Heritage Assets" and "Good Practice Advice in Planning - Note 2: Managing Significance in Decision Taking in the Historic Environment". The latter is in addition to guidance mentioned in paragraph 9.7.7 of the EIA Scoping Report.







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If you have any queries about any of the above, or would like to discuss anything further, please contact me.

Yours sincerely,



Rosa Teira Paz Assistant Inspector of Historic Buildings and Areas rosa.teirapaz@historicengland.org.uk









Land and Acquisitions

www.nationalgrid.com

Spencer Jefferies
Development Liaison Officer
Network management
Spencer.Jefferies@nationalgrid.com

SUBMITTED ELECTRONICALLY:

environmentalservices@pins.gsi.gov.uk

06 December 2018

Dear Sir/Madam

Application by Highways England (the Applicant) for an Order granting Development Consent for the A1 Alnwick to Ellingham Improvement Scheme (the Proposed Development)

Scoping consultation

This is a response on behalf of National Grid Electricity Transmission PLC (NGET) and National Grid Gas PLC (NGG)

I refer to your letter dated 8th November 2018 regarding the proposed Order. NGET and NGG have no assets in the vicinity of the proposal therefore, we would not object to the Order as it stands.

I hope the above information is useful. If you require any further information please do not hesitate to contact me.

Yours sincerely

Spencer Jefferies

Development Liaison Officer, Land and Acquisitions.

Date: 20 November 2018 Our ref: 264093, Case 12774 Your ref: TR010053-000003

Gail Boyle
Senior EIA and Land Rights Advisor
Major Casework Directorate
Planning Inspectorate
Temple Quay House
2 The Square
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BY EMAIL ONLY



Customer Services Hornbeam House Crewe Business Park Electra Way Crewe Cheshire CW1 6GJ

T 0300 060 3900

Dear Ms Boyle

Planning Act 2008 (as amended) and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) – Regulations 10 and 11

Application by Highways England (the Applicant) for an Order granting Development Consent for the A1 Alnwick to Ellingham Improvement Scheme (the Proposed Development)

Scoping consultation and notification of the Applicant's contact details and duty to make available information to the Applicant if requested.

Thank you for seeking our advice on the scope of the Environmental Statement (ES) in your consultation dated 08 November 2018 which we received on the same day.

Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development.

Case law¹ and guidance² has stressed the need for a full set of environmental information to be available for consideration prior to a decision being taken on whether or not to grant planning permission. Annex A to this letter provides Natural England's advice on the scope of the Environmental Impact Assessment (EIA) for this development.

Should the proposal be amended in a way which significantly affects its impact on the natural environment then, in accordance with Section 4 of the Natural Environment and Rural Communities Act 2006, Natural England should be consulted again.

We would be happy to comment further should the need arise but if in the meantime you have any queries please do not hesitate to contact us. For any queries relating to the specific advice in this letter <u>only</u> please contact me on 0208 0265533 or <u>andrew.whitehead@naturalengland.org.uk</u>. For any new consultations, or to provide further information on this consultation please send your correspondences to consultations@naturalengland.org.uk.

Yours sincerely

Andrew Whitehead Northumbria Area Team

¹ Harrison, J in R. v. Cornwall County Council ex parte Hardy (2001)

² Note on Environmental Impact Assessment Directive for Local Planning Authorities Office of the Deputy Prime Minister (April 2004) available from

http://webarchive.nationalarchives.gov.uk/+/http://www.communities.gov.uk/planningandbuilding/planning/sustainabilityenvironmental/environmentalimpactassessment/noteenvironmental/

Annex A - Advice related to EIA Scoping Requirements

1. General Principles

Schedule 4 of the Town & Country Planning (Environmental Impact Assessment) Regulations 2017, sets out the necessary information to assess impacts on the natural environment to be included in an ES, specifically:

- A description of the development including physical characteristics and the full land use requirements of the site during construction and operational phases.
- Expected residues and emissions (water, air and soil pollution, noise, vibration, light, heat, radiation, etc.) resulting from the operation of the proposed development.
- An assessment of alternatives and clear reasoning as to why the preferred option has been chosen.
- A description of the aspects of the environment likely to be significantly affected by the
 development, including, in particular, population, fauna, flora, soil, water, air, climatic factors,
 material assets, including the architectural and archaeological heritage, landscape and the
 interrelationship between the above factors.
- A description of the likely significant effects of the development on the environment this should cover direct effects but also any indirect, secondary, cumulative, short, medium and long term, permanent and temporary, positive and negative effects. Effects should relate to the existence of the development, the use of natural resources and the emissions from pollutants. This should also include a description of the forecasting methods to predict the likely effects on the environment.
- A description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment.
- A non-technical summary of the information.
- An indication of any difficulties (technical deficiencies or lack of know-how) encountered by the applicant in compiling the required information.

It will be important for any assessment to consider the potential cumulative effects of this proposal, including all supporting infrastructure, with other similar proposals and a thorough assessment of the 'in combination' effects of the proposed development with any existing developments and current applications. A full consideration of the implications of the whole scheme should be included in the ES. All supporting infrastructure should be included within the assessment.

2. Biodiversity and Geology

2.1 Ecological Aspects of an Environmental Statement

Natural England advises that the potential impact of the proposal upon features of nature conservation interest and opportunities for habitat creation/enhancement should be included within this assessment in accordance with appropriate guidance on such matters. Guidelines for Ecological Impact Assessment (EcIA) have been developed by the Chartered Institute of Ecology and Environmental Management (CIEEM) and are available on their website.

EcIA is the process of identifying, quantifying and evaluating the potential impacts of defined actions on ecosystems or their components. EcIA may be carried out as part of the EIA process or to support other forms of environmental assessment or appraisal.

The National Planning Policy Framework sets out guidance in S.118 on how to take account of biodiversity interests in planning decisions and the framework that local authorities should provide to assist developers.

2.2 Internationally and Nationally Designated Sites

Natural England notes the proposal to scope out impacts on nationally and internationally designated sites from the EIA due to the separation distance between the designated sites and the scheme, and the fact that the majority of the works will be 'on-line' along the existing route of the A1.

We agree that these impacts can be scoped out, but also note that a Habitats Regulations Screening Assessment will be produced.

 Natura 2000 network site conservation objectives are available on our internet site http://publications.naturalengland.org.uk/category/6490068894089216

2.3 Regionally and Locally Important Sites

The EIA will need to consider any impacts upon local wildlife and geological sites. Local Sites are identified by the local wildlife trust, geoconservation group or a local forum established for the purposes of identifying and selecting local sites. They are of county importance for wildlife or geodiversity. The Environmental Statement should therefore include an assessment of the likely impacts on the wildlife and geodiversity interests of such sites. The assessment should include proposals for mitigation of any impacts and if appropriate, compensation measures. Contact the local wildlife trust, geoconservation group or local sites body in this area for further information.

2.4 Protected Species - Species protected by the Wildlife and Countryside Act 1981 (as amended) and by the Conservation of Habitats and Species Regulations 2017

The ES should assess the impact of all phases of the proposal on protected species (including, for example, great crested newts, reptiles, birds, water voles, badgers and bats). Natural England does not hold comprehensive information regarding the locations of species protected by law, but advises on the procedures and legislation relevant to such species. Records of protected species should be sought from appropriate local biological record centres, nature conservation organisations, groups and individuals; and consideration should be given to the wider context of the site for example in terms of habitat linkages and protected species populations in the wider area, to assist in the impact assessment.

The conservation of species protected by law is explained in Part IV and Annex A of Government Circular 06/2005 *Biodiversity and Geological Conservation: Statutory Obligations and their Impact within the Planning System.* The area likely to be affected by the proposal should be thoroughly surveyed by competent ecologists at appropriate times of year for relevant species and the survey results, impact assessments and appropriate accompanying mitigation strategies included as part of the ES.

In order to provide this information there may be a requirement for a survey at a particular time of year. Surveys should always be carried out in optimal survey time periods and to current guidance by suitably qualified and where necessary, licensed, consultants. Natural England has adopted standing advice for protected species which includes links to guidance on survey and mitigation.

2.5 Habitats and Species of Principal Importance

The ES should thoroughly assess the impact of the proposals on habitats and/or species listed as 'Habitats and Species of Principal Importance' within the England Biodiversity List, published under the requirements of S41 of the Natural Environment and Rural Communities (NERC) Act 2006. Section 40 of the NERC Act 2006 places a general duty on all public authorities, including local planning authorities, to conserve and enhance biodiversity. Further information on this duty is available here https://www.gov.uk/guidance/biodiversity-duty-public-authority-duty-to-have-regard-to-conserving-biodiversity.

Government Circular 06/2005 states that Biodiversity Action Plan (BAP) species and habitats, 'are capable of being a material consideration...in the making of planning decisions'. Natural England therefore advises that survey, impact assessment and mitigation proposals for Habitats and Species of Principal Importance should be included in the ES. Consideration should also be given to those species and habitats included in the relevant Local BAP.

Natural England advises that a habitat survey (equivalent to Phase 2) is carried out on the site, in order to identify any important habitats present. In addition, ornithological, botanical and invertebrate surveys should be carried out at appropriate times in the year, to establish whether any scarce or priority species are present. The Environmental Statement should include details of:

- Any historical data for the site affected by the proposal (e.g. from previous surveys);
- Additional surveys carried out as part of this proposal:

- The habitats and species present;
- The status of these habitats and species (e.g. whether priority species or habitat);
- The direct and indirect effects of the development upon those habitats and species;
- Full details of any mitigation or compensation that might be required.

The development should seek if possible to avoid adverse impact on sensitive areas for wildlife within the site, and if possible provide opportunities for overall wildlife gain.

The record centre for the relevant Local Authorities should be able to provide the relevant information on the location and type of priority habitat for the area under consideration.

2.6 Contacts for Local Records

Natural England does not hold local information on local sites, local landscape character and local or national biodiversity priority habitats and species. We recommend that you seek further information from the appropriate bodies (which may include the local records centre, the local wildlife trust, local geoconservation group or other recording society and a local landscape characterisation document).

Local Record Centre (LRC) in Northumberland please contact:

Environmental Records Information Centre North East (ERIC - NE) Great North Museum – Hancock Barras Bridge Newcastle upon Tyne NE2 4PT

Telephone: 0191 2085158

Website: www.ericnortheast.org.uk

3. Designated Landscapes and Landscape Character

Nationally Designated Landscapes

As the development site is approximately 5km from the Northumberland Coast Area of Outstanding Natural Beauty (AONB), consideration should be given to the direct and indirect effects upon this designated landscape and in particular the effect upon its purpose for designation within the environmental impact assessment, as well as the content of the relevant management plan for the AONB.

Landscape and visual impacts

Natural England would wish to see details of local landscape character areas mapped at a scale appropriate to the development site as well as any relevant management plans or strategies pertaining to the area. The EIA should include assessments of visual effects on the surrounding area and landscape together with any physical effects of the development, such as changes in topography. The European Landscape Convention places a duty on Local Planning Authorities to consider the impacts of landscape when exercising their functions.

The EIA should include a full assessment of the potential impacts of the development on local landscape character using <u>landscape assessment methodologies</u>. We encourage the use of Landscape Character Assessment (LCA), based on the good practice guidelines produced jointly by the Landscape Institute and Institute of Environmental Assessment in 2013. LCA provides a sound basis for guiding, informing and understanding the ability of any location to accommodate change and to make positive proposals for conserving, enhancing or regenerating character, as detailed proposals are developed.

Natural England supports the publication *Guidelines for Landscape and Visual Impact Assessment*, produced by the Landscape Institute and the Institute of Environmental Assessment and Management in 2013 (3rd edition). The methodology set out is almost universally used for landscape and visual impact assessment.

In order to foster high quality development that respects, maintains, or enhances, local landscape character and distinctiveness, Natural England encourages all new development to consider the character and distinctiveness of the area, with the siting and design of the proposed development

reflecting local design characteristics and, wherever possible, using local materials. The Environmental Impact Assessment process should detail the measures to be taken to ensure the building design will be of a high standard, as well as detail of layout alternatives together with justification of the selected option in terms of landscape impact and benefit.

The assessment should also include the cumulative effect of the development with other relevant existing or proposed developments in the area. In this context Natural England advises that the cumulative impact assessment should include other proposals currently at Scoping stage. Due to the overlapping timescale of their progress through the planning system, cumulative impact of the proposed development with those proposals currently at Scoping stage would be likely to be a material consideration at the time of determination of the planning application.

The assessment should refer to the relevant <u>National Character Areas</u> which can be found on our website. Links for Landscape Character Assessment at a local level are also available on the same page.

Heritage Landscapes

You should consider whether there is land in the area affected by the development which qualifies for conditional exemption from capital taxes on the grounds of outstanding scenic, scientific or historic interest. An up-to-date list may be obtained at www.hmrc.gov.uk/heritage/lbsearch.htm.

4. Access and Recreation

Natural England encourages any proposal to incorporate measures to help encourage people to access the countryside for quiet enjoyment. Measures such as reinstating existing footpaths together with the creation of new footpaths and bridleways are to be encouraged. Links to other green networks and, where appropriate, urban fringe areas should also be explored to help promote the creation of wider green infrastructure. Relevant aspects of local authority green infrastructure strategies should be incorporated where appropriate.

Rights of Way

The EIA should consider potential impacts on rights of way in the vicinity of the development. We also recommend reference to the relevant Right of Way Improvement Plans (ROWIP) to identify public rights of way within or adjacent to the proposed site that should be maintained or enhanced.

5. Soil and Agricultural Land Quality

Impacts from the development should be considered in light of the Government's policy for the protection of the best and most versatile (BMV) agricultural land as set out in paragraph 112 of the NPPF. We also recommend that soils should be considered under a more general heading of sustainable use of land and the ecosystem services they provide as a natural resource in line with paragraph 109 of the NPPF.

As identified in the NPPF new sites or extensions to new sites for peat extraction should not be granted permission by Local Planning Authorities or proposed in development plans.

6. Air Quality

Air quality in the UK has improved over recent decades but air pollution remains a significant issue; for example over 97% of sensitive habitat area in England is predicted to exceed the critical loads for ecosystem protection from atmospheric nitrogen deposition (England Biodiversity Strategy, Defra 2011). A priority action in the England Biodiversity Strategy is to reduce air pollution impacts on biodiversity. The planning system plays a key role in determining the location of developments which may give rise to pollution, either directly or from traffic generation, and hence planning decisions can have a significant impact on the quality of air, water and land. The assessment should take account of the risks of air pollution and how these can be managed or reduced. Further information on air pollution impacts and the sensitivity of different habitats/designated sites can be found on the Air Pollution Information System (www.apis.ac.uk). Further information on air pollution modelling and assessment can be found on the Environment Agency website.

7. Climate Change Adaptation

The <u>England Biodiversity Strategy</u> published by Defra establishes principles for the consideration of biodiversity and the effects of climate change. The ES should reflect these principles and identify

how the development's effects on the natural environment will be influenced by climate change, and how ecological networks will be maintained. The NPPF requires that the planning system should contribute to the enhancement of the natural environment 'by establishing coherent ecological networks that are more resilient to current and future pressures' (NPPF Para 109), which should be demonstrated through the ES.

8. Cumulative and in-combination effects

A full consideration of the implications of the whole scheme should be included in the ES. All supporting infrastructure should be included within the assessment.

The ES should include an impact assessment to identify, describe and evaluate the effects that are likely to result from the project in combination with other projects and activities that are being, have been or will be carried out. The following types of projects should be included in such an assessment, (subject to available information):

- a. existing completed projects;
- b. approved but uncompleted projects;
- c. ongoing activities;
- d. plans or projects for which an application has been made and which are under consideration by the consenting authorities; and
- e. plans and projects which are reasonably foreseeable, i.e. projects for which an application has not yet been submitted, but which are likely to progress before completion of the development and for which sufficient information is available to assess the likelihood of cumulative and in-combination effects.

From: Christopher Hogg
To: Environmental Services
Cc: Donald Gilbank

Subject: A1 Alnwick to Ellingham Improvement Scheme: TR010053-000003

Date: 22 November 2018 14:14:21

Attachments: <u>image001.png</u>

Good afternoon,

Your ref: TR010053-000003

NGN do not have any comments relating to the Environmental Statement.

Regards,

Chris Hogg

Supply Strategy Lead

Northern Gas Networks

www.northerngasnetworks.co.uk facebook.com/northerngasnetworks

twitter.com/ngngas Alternative contact:

Iain Foster: lFoster@northerngas.co.uk



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Mr Richard White
The Planning Inspectorate
Temple Quay House
Temple Quay
Bristol
BS1 6PN

Planning Ref: 18/03962/MISC

Your Ref:

Contact: Mrs Katherine Robbie Direct Line: 01670 622633

E-Mail: katherine.robbie@northumberland.gov.uk

Date: 6th December 2018

Planning Act 2008 (as amended) and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017(the EIA Regulations) – Regulations 10 and 11

Application by Highways England (the Applicant) for an Order granting Development Consent for the A1 Alnwick to Ellingham Improvement Scheme (the Proposed Development)

Introduction

Thank you for the opportunity to provide comments on the above request for a scoping opinion.

I have received comments from internal consultees and can now provide you with the following responses on behalf of the Local Authority.

<u>Public Protection (Environmental Health)</u>

It would be expected that the EIA or the application generally should cover, at least, the following aspects of the development (details of these are provided below):

- Air Quality.
- Historic Land Use Impacts.
- Noise and Vibration.
- Noise Screening.
- Artificial Lighting.
- Dust Management.
- Odours.
- Hours of Operation.
- Statutory Nuisance.

Commentary

The proposed dualling of the A1 from Alnwick to Ellingham joins two sections of existing dual carriageway between these locations.

Similar to the dualling of the Fairmoor to Felton section of the A1, this section has a limited number of receptors close to the existing (or proposed) carriageway.

It is not expected that the dualling of this section of the A1 would lead to an increase in traffic volumes in the short-term but should improve traffic flows in both directions which are currently restricted by slower moving vehicles.

The Public Health Protection Unit have already provided comments to Highways England and their consultants involved in this project on some of the aspects of the proposed dualling.

Air Quality Impacts

The Public Health Protection Unit were approached by Emily Waterfall of Highways England on the assessment of air quality impacts from the proposed development and a detailed response was provided on the 09 August 2016.

It is not expected that air quality should be adversely impacted by the operational use of this section of the A1 once dualled. Any supporting information on an improvement in traffic flows from the dualling of this section should support this expectation.

This was for a consultation of the dualling of the both sections of the A1 which incorporated the section from Alnwick to Ellingham.

Historic Land Use Impacts

The Public Health Protection Unit have been approached by Claire Smith, Associate, Ground Risk & Remediation at WSP for information the Council might hold on historic land uses which might have a risk of contamination in proximity to the defined working area and information on any private water supplies within a buffer around the defined working area. The information was determined to fall within the scope of The Environmental Information Regulations 2004, and is yet to be released to the consultant.

The information is in the process of being finalised and sent to the consultant. It would also be expected that included within a construction management plan (CMP), or similar, that suitable awareness and protection will be provided to not introduce new contaminants through the development process itself (ie avoiding chemical spills, correct fuel/oil storage etc.).

Where old asphalt needs to be removed from any parts of the existing carriageways, there should be an awareness that there is a potential for this to contain tar-bound planings.

Regionally Important Geological and Geomorphological Sites (RIGS) / Local Wildlife and Geological Sites (LWGS) and Sites of Special Scientific Interest (SSSI).

There does not appear any of these designated sites within the immediate area of the proposed dualling. However, it is expected that Ecology at Northumberland County Council are also a consultee to this application and will confirm these matters.

Noise and Vibration

The Public Health Protection Unit have been approached by WSP asking for comments upon the proposed methodology and asking for any relevant noise information which might be pertinent to the locale and the proposed dualling. The Public Health Protection Unit provided a detailed response to this outside of the planning process on the 13 July 2018.

Vibration would normally only be of concern where piling works are required with receptors in close proximity. In such situations, assessment and mitigation of impact may be required. Where vibration might be caused by the proposed development, it is recommended that the applicant liaises with local receptors at an early stage and agree if any structural assessment of dwellings may be required.

Noise Screening

The Public Health Protection Unit would recommend that the applicant carefully considers screening options to mitigate for noise from the operational road traffic, where This might be particularly beneficial at West Lodge (Charlton Hall) where the additional carriageway will be placed closer to this receptor and there is intervening land that could accommodate some kind of earthen bund and upon which trees could be planted to replace any removed. This could serve a dual purpose of mitigating any potential noise impact and also ensuring the visual barrier is maintained.

Artificial Lighting

Where there are compounds or night-time works requiring artificial illumination for health and safety and/or security reasons, then lighting should conform to the Institution of Lighting Professionals: Guidance Notes for the Reduction of Lighting Pollution (2011, Ref GN01:2011), this guidance can be viewed / downloaded from: https://www.theilp.org.uk/documents/obtrusive-light/

It is likely that most of this stretch of the A1 would fall within Environmental Zone E2 (Rural) as it clearly would not fall within the examples of zone E1 and is somewhat altered by vehicles lights using the A1 at night. Therefore, light intrusion (trespass) should not exceed 5 lux pre-curfew and 1 lux post-curfew (curfew being 2300 to 0700).

The impact from illumination of the carriageway during the operational phase will not be required.

Dust Management

It is likely that dust generation could be caused by a number of operations associated with the proposed works, including but not limited to:

- The storage and loading/unloading of materials which could be entrained in the wind.
- Earthworks and groundworks for the creation of new carriageway or landscaping.
- Milling of the existing road surface prior to resurfacing.
- The cutting of any materials being used in the development (ie kerb or flag stones).

Dust minimisation and control shall have regards to accepted guidance and in particular The Institute of Air Quality Management has produced very current documentation entitled "Guidance on the Assessment of Dust from Demolition and Construction" available at:

http://iaqm.co.uk/guidance/

Additionally, the Mayor of London's office has produced a supplementary guidance document entitled "The Control of Dust and Emissions During Construction and Demolition" which is available at:

https://www.london.gov.uk/what-we-do/planning/implementing-london-plan/supplementary-planning-guidance/control-dust-and

The HSE also provide guidance on construction dust:

http://www.hse.gov.uk/construction/healthrisks/hazardous-substances/construction-dust.htm

As do the CITB through the Construction Dust Partnership:

https://www.citb.co.uk/health-safety-and-other-topics/health-safety/construction-dust-partnership/

Please note that "track out" of soils from sites may be an issue if not dealt with appropriately, it is recommended that an areas of hardstanding are formed at an early stage of the development where site workers vehicles and delivery vehicles can enter without tracking materials out onto the access road.

It would be expected that a dust management plan (DMP) is produced for such a development identifying the risks and appropriate mitigation which would form part or tie into any construction management plan (CMP) which should reinforce the correct working procedures and operation of equipment and plant.

Odours

It is likely that the most pervasive odour during the development will be from the use of hot asphalt when carriageways are being laid. Little can be done to mitigate such an odour regardless of whether any resurfacing will employ road surface recycling plant or hot asphalt imported to be laid.

Hours of Operation

Although daytime, temporary and/or short-term works generating substantial noise might be acceptable, such noise during the evening, night, weekends and Bank Holiday may be less tolerable to local receptors.

It is recommended that works are organised with local receptors at the forefront of the planning of these works. Where possible, night-time noisy works near to residential receptors should be avoided and every effort should be made to accommodate the necessary noisy works at these locations during the day (or early evening) period. Where late evening and night-time noisy works are unavoidable, then it is recommended that a high level of communication is maintained with local receptors and should as a minimum be through letter drops informing of the dates, times and duration of any night-time works. Even then, it is recommended that there should still be a protected period which would allow some respite during the night.

Statutory Nuisance

The applicant may wish to consider submitting a Statement of Statutory Nuisance which would provide an explanation of the matters set out in Section 79(1) of The Environmental Protection Act 1990 in respect of statutory nuisance, the potential implications of the proposed development and the measures that have been incorporated into the project design to limit any such potential nuisances.

The requirement for a Statement of Statutory Nuisances is set out in the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 at Regulation 5(2)(f), which states that "The application must be accompanied by.....a statement whether the proposal engages one or more of the matters set out in section 79(1) (statutory nuisances and inspections therefore) of The Environmental Protection Act 1990(b), and if so how the applicant proposes to mitigate or limit them."

Lead Local Flood Authority

The Lead Local Flood Authority (LLFA) as a consultee within the planning process, are of the opinion that aspects of the proposed dualling of the A1 (between Alnwick and Ellingham in Northumberland) relating to environmental impacts can be fully addressed within the scope of an environmental statement (or EIA).

The LLFA have been approached by consultants commissioned by Highways England for information and/or agreement on methodology on flood risk and drainage matters.

It would be expected that the EIA or the application generally should cover, at least, the following aspects of the development (details of these are provided below):

- Flood risk fluvial and surface water
- Drainage

Commentary

There are a number of existing culverts which run under the A1. All of these culverts need to be analysed from a flood risk perspective. Where necessary these culverts need to be replaced, repaired, extended, or newly constructed.

Where overland surface water flow routes have been identified, appropriate mitigation measures will need to be proposed and incorporated into the design.

With regards to the disposal of surface water from the highway, as per paragraph 163 of the NPPF When determining any planning applications, local planning authorities should ensure that flood risk is not increased elsewhere. Where appropriate, applications should be supported by a site specific flood-risk assessment. Development should only be allowed in areas at risk of flooding where,

in the light of this assessment (and the sequential and exception tests, as applicable) it can be demonstrated that:

• it incorporates sustainable drainage systems, unless there is clear evidence that this would be inappropriate.

As such we expect to see attenuation provided in the form of SuDS. We ask that the discharge rate is restricted to the equivalent greenfield runoff rate for the same event and that attenuation is provided for the 1 in 100 year plus climate change event. Information on climate change can be found here —

https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances

Building Conservation

The proposed alignment passes through a number of designated and non designated heritage assets. Some assets are of national significance. Impacts will in most cases be to setting although in a small number of cases there will be direct physical impacts.

Chapter 9 of the Scoping Report deals with Cultural Heritage. It effectively summarises the distribution and value of the heritage assets likely to be affected by the proposal and likely impacts from construction and operation. We support the scoping in of the grade I Alnwick Castle Registered Park and Garden and the inclusion of viewpoints within it but suggest a viewpoint also be considered for that part at Ratcheugh.

At 9.7.4 Policies and Plans relevant to the study are listed. It may be prudent to include the Alnwick and Denwick Neighbourhood plan in this regard.

Building Conservation notes the contents of Chapter 9 and requests the comments above are given due regard.

Highways

The contents of the Scoping report are considered acceptable in terms of the impacts of the proposals on the local road network.

When considering the environmental impacts of road traffic in isolation, i.e. not air quality, noise and severance etc, the change of flows is considered. The impact of the new road will create traffic at that location, which is unavoidable, but in terms of the local road network and the de-trunked sections of the A1, the proposals will result in a decrease in traffic.

It is possible that some local links will increase in traffic flows due to redistribution of traffic to access the new A1 but we are satisfied that this will be considered adequately in the EIA.

The potential for Public Right of Way disruption is noted in the report and this should be scoped with the Public Rights of Way team.

We would anticipate the EIA to consider the impacts during the construction phase when sections of the Local Road Network are closed for any significant lengths of

time. There would be particular interest where the A1 itself is required to be completely closed and the impacts during this time on the subsequent diversion route especially given local Member and public concern when the A1 was intended to be closed for maintenance earlier in 2018.

There are potential concerns with the use of the Lionheart depot for works compounds in relation to the impacts of construction traffic on Shilbottle Road and the A1068/Shilbottle Road junction, which is known to experience congestion and is at capacity when committed developments are completed.

In respect to the cumulative impacts assessed, there are no applications listed in the Scoping Report and this shall be reviewed as there is notable development in Alnwick. These developments will add traffic to the network and the EIA should consider whether these are significant enough to warrant inclusion in the cumulative effects assessment

We welcome the opportunity for continued involvement in the project including the scope of a Transport Assessment that is likely to be required as part of the Development Control Order submitted to the Inspectorate.

County Ecologist

The ES scoping report states that one of the aims of the proposal in line with Highways England policy is to commit to the principle of no net loss for biodiversity. This approach is at odds with planning policy and environment policy as a whole; the NPPF and the recently published 25 Year Environment Plan, states the principle toward biodiversity should be to aim to deliver nett gain for biodiversity over and above mitigation proposals, this is in line with the NPPF (para 8 and 170).

The mitigation and enhancement should take opportunities to create and join ecological networks, again in line with the NPPF (para 170).

Ecological survey

In general the scope and scale of ecological survey, including protected species, appears to be thorough and to conform to relevant survey guidance.

However given that some survey work was undertaken in 2015 and early 2016, then those surveys may not be sufficiently up to date in order to support an informed decision. For example breeding bird survey was undertaken last in spring 2016. Surveys should therefore be updated where appropriate and where not updated thorough explanation must be provided as to why older surveys may continue to be robust.

The breeding farmland bird and wading bird assemblage is relatively diverse including 5 red listed farmland bird and 3 red listed wader species. Bird survey method and effort should be appropriate to the species. For example the scoping report states that woodcock may be breeding within the study area, therefore survey for this species should be undertaken in accordance with the relevant guidance¹.

Vantage point survey is to be undertaken for barn owl which I concur is necessary.

¹ Gilbert, Gibbons and Evans, Bird Monitoring Methods, 1998.

I concur that priority habitats should be scoped into the EIA. The quality of grasslands to be impacted should be clearly described, even where semi-improved grasslands fall below the threshold to be considered to be priority habitat those grasslands may be considered to be habitat that falls under the Northumberland BAP. Where such grasslands are to be impacted, commensurate mitigation would be required.

The presence and location of veteran trees, including those outwith ancient woodland, should be carefully mapped and unless absolutely impossible veteran trees should be retained and protected. Veteran trees host a disproportionately large range of taxa and for this reason the NPPF gives aged and veteran trees the same status as other irreplaceable habitats (para 175).

I welcome that landscape scale effects on bats shall be investigated. This should utilise bat transect surveys and static monitoring survey work in accordance with BCT guidance.

Reptile survey had not been undertaken at the time of writing the scoping document, however I welcome that reptile survey is planned to be undertaken as suitable habitat for reptiles is present in the study area.

The survey data summarised in the scoping document presents a number of new water vole records, where only a single one existed previously within 2km of the study area. This could represent a recovery in population for this animal, which is a potentially significant and accordingly information about this protected species should be up to date when submitted for consideration. Mitigation for water vole regarding pollution prevention (during and post construction) and avoiding habitat severance should be clearly presented.

I concur that due to the scale of the proposal and that European sites are within 10km of the study area that the proposal would need to be screened for a likely significant effect on the conservation objectives of interest features of those sites in accordance with the Conservation of Species and Habitats Regulations 2017. It is incumbent upon the developer to provide this information to the competent authority.

Mitigation Measures

I welcome that the road is not to be lit as this limits the impact to bats and other nocturnal mammals and birds.

The proposed development is within 500m of a number of small water courses (approx 16). It is stated that all drainage systems shall outfall to watercourses. Given that water quality underpins the ecology of those water courses, including protected species such as water vole and otter, measures to alleviate pollution including those to remove and trap sediment (oversized vegetated balancing ponds and reedbeds) are essential, particularly in the catchments where the WFD classification for ecological or chemical properties of those watercourses are rated as good.

I would strongly encourage that there is an aim that all grassland created should be species rich grassland, which utilise locally appropriate wild provenance seed mixture, potentially including the only Northumberland wild provenance seed from B

& K Wharf Farming (as detailed on the Flora Locale supplier directory). Where species rich grassland is to be established a full topsoil profile should not be restored, indeed topsoil could be omitted completely.

The aim for the scheme should be to secure a nett gain in biodiversity, accordingly where priority and irreplaceable habitats such as veteran trees are impacted biodiversity enhancement over and above mitigation should be clearly proposed.

Archaeology

The proposed development is located in a wider archaeological landscape containing known sites from the prehistoric period onwards. The archaeological potential of the area has been effectively summarised in the Environmental Impact Assessment Scoping Report, ranging from Bronze Age burials, Iron Age settlements and medieval settlements and associated farmland to post-medieval and 19th century settlement and industrial activity to a 20th century landing ground.

Assessment of Environmental Impact Assessment Scoping Report

I have read the Cultural Heritage Section of the Environmental Impact Assessment Scoping Report andcan confirm that the identified search area provides a sufficient understanding of the known archaeological remains within the site and in the surrounding area, in order to provide insight into the nature and range of potential, previously unidentified remains which may be present on site. The document highlights the extent of assessment work which will be required, both for the Desk-Based Assessment, but also the Visual Impact Assessment.

Section 9.5.1 of the report states that "If disturbance is unavoidable, then a programme of archaeological evaluation in the form of geophysical survey and potentially targeted trial trench evaluation should be implemented to determine the presence, extent, level of survival of the asset." I agree with the need for geophysical survey. The extent of the geophysical survey will need to be formulated based on the impact of the proposed road widening, associated infrastructure and disturbance, potentially with a buffer in order to place the results within their context.

In addition, I would like to highlight that while the desk-based assessment and geophysical survey will help to inform the trial trenching strategy, unless this work clearly demonstrates that archaeological remains have been removed by later disturbance, trial trenching will usually be required as standard.

The shallow nature of many archaeological sites in Northumberland and the potential presence of discrete features, such as Bronze Age burials, mean that geophysical surveys and aerial photographic analysis do not always identify the extent and range of all archaeological remains on site. The trial trenching will therefore be positioned to test geophysical anomalies of potential archaeological origin, known earthworks and cropmarks and also blank areas. As identified in the Environmental Impact Assessment Scoping Report, the scope of the evaluation will be agreed in consultation with NCC Conservation Team.

Advice

The Environmental Impact Assessment Scoping Report effectively summarises the archaeological issues involved with the proposed scheme and outlines the nature and range of further assessment and evaluation that is required.

I trust the information within this response is clear. If you have any comments or wish to discuss this with me any further please do not hesitate to contact me using the details provided at the top of the page.

Yours sincerely,



Mrs Katherine Robbie Senior Planning Officer Development Management Team



NSIP Consultations

www.gov.uk/phe

The Planning Inspectorate, Major Casework Directorate, Temple Quay House, 2 The Square, Bristol. BS1 6PN

06 December 2018

FAO: Gail Boyle

Dear Ms Boyle,

Our Ref : 49053

Your Ref: TR010053-000003

Re: Scoping Consultation Application for an Order Granting Development Consent for the proposed A1 Alnwick to Ellingham Improvement Scheme

Thank you for including Public Health England (PHE) in the scoping consultation phase of the above application. Advice offered by PHE is impartial and independent.

PHE exists to protect and improve the nation's health and wellbeing, and reduce health inequalities; these two organisational aims are reflected in the way we review and respond to Nationally Significant Infrastructure Project (NSIP) applications. The health of an individual or a population is the result of a complex interaction of a wide range of different determinants of health, from an individual's genetic make-up, to lifestyles and behaviours, and the communities, local economy, built and natural environments to global ecosystem trends. All developments will have some effect on the determinants of health, which in turn will influence the health and wellbeing of the general population, vulnerable groups and individual people. Although assessing impacts on health beyond direct effects from for example emissions to air or road traffic incidents is complex, there is a need to ensure a proportionate assessment focused on an application's significant effects.

Environmental Public Health

We understand that the promoter will wish to avoid unnecessary duplication and that many issues including air quality, emissions to water, waste, contaminated land etc. will be covered elsewhere in the environmental statement (ES). We believe the summation of relevant issues into a specific section of the report provides a focus which ensures that public health is given adequate consideration. The section should summarise key information, risk assessments, proposed mitigation measures, conclusions and residual impacts, relating to human health. Compliance

with the requirements of National Policy Statements and relevant guidance and standards should also be highlighted.

In terms of the level of detail to be included in an ES, we recognise that the differing nature of projects is such that their impacts will vary. Any assessments undertaken to inform the ES should be proportionate to the potential impacts of the proposal, therefore we accept that, in some circumstances particular assessments may not be relevant to an application, or that an assessment may be adequately completed using a qualitative rather than quantitative methodology. In cases where this decision is made the promoters should fully explain and justify their rationale in the submitted documentation.

We note that Section 6.7.27 of the scoping report states "These objectives (Air Quality Standards) have been established to protect individuals in a population, and as such they define the standard below which health effects are unlikely to be experienced even by the most sensitive members of the population. Above these, worse health outcomes may be predicted."

Our position is that pollutants associated with road traffic, particularly particulate matter and oxides of nitrogen are non-threshold; i.e., an exposed population is likely to be subject to potential harm at any level and that reducing public exposures of non-threshold pollutants (such as particulate matter and nitrogen dioxide) below air quality standards will have potential public health benefits. We support approaches which minimise or mitigate public exposure to non-threshold air pollutants, address inequalities (in exposure), maximise co-benefits (such as physical exercise). We encourage their consideration during development design, environmental and health impact assessment, and development consent.

It is noted that the current proposals do not appear to consider possible health impacts of Electric and Magnetic Fields (EMF). The documentation states that existing extra-high voltage power cables serving an existing windfarm will be diverted ahead of the scheme commencing. It is unclear if these works fall outside of the scope of the DCO application; we request that the ES clarifies this and if necessary, the proposer should confirm either that the proposed development does not impact any receptors from potential sources of EMF; or ensure that an adequate assessment of the possible impacts is undertaken and included in the ES.

Human Health and Wellbeing

This section of our scoping response identifies the wider determinants of health and wellbeing we expect the ES to address, to demonstrate whether they are likely to give rise to significant effects. We have focussed our approach on scoping determinants of health and wellbeing under four themes, which have been derived from an analysis of the wider determinants of health mentioned in the National Policy Statements. The four themes are:

- Access
- Traffic and Transport
- Socioeconomic

Land Use

We have identified that each of the determinants that require further consideration in the ES; the table also includes the following:

- evidence demonstrating the link between the determinant of health and related health outcomes
- some examples of key national policy documents related to this determinant

The final ES should also identify opportunities for ways to enhance beneficial effects as well as avoid or, as a minimum, mitigate adverse effects.

Having considered the submitted scoping report we wish to make the following specific comments and recommendations:

Methodology

A list of vulnerable populations has been provided but it does not reference links to the list of protected characteristics. The impacts on health and wellbeing and health inequalities of the scheme may have effects on vulnerable or disadvantaged populations, including those that fall within the list of protected characteristics. The ES and any Equalities Impact Assessment (EqIA) should be considered together.

Recommendation

The assessments and findings of the ES and any EqIA should be crossed reference, particularly to ensure the comprehensive assessment of potential impacts for health and inequalities and where resulting mitigation measures are mutually supportive.

Traffic and transport / community severance

The scoping report correctly identifies the potential impacts of the development on community cohesion and excludes assets outside of a 1km zone, but does not detail matters to be considered. The accessibility of public transport can be important to prevent social isolation, community severance and allows for effective travel for leisure, education and work

Recommendation

The ES should assess the impact on accessibility and effectiveness of the local public transport system. This should be considered both for local communities and access to those beyond the 1km zone where appropriate.

Physical activity and active travel

The scoping report identifies how non-motorised users (NMU) will be impacted through the loss or change in formal Public Rights of Way (PRoW) and the existing road network. Active travel forms an important part in helping to promote healthy weight environments and as such it is important that any changes have a positive long term impact where possible. Changes to NMU routes have the potential to impact on usage, create displacement to other routes and potentially lead to increased road traffic collisions.

A scheme of this scale and nature can also provide opportunities to enhance the existing infrastructure that supports active travel. The route and design of the

scheme may be able to contribute to improved provision for active travel and physical activity.

Recommendations

The overall risk to NMU and impact on active travel should be considered on a case-by-case basis, considering the number and type of users and the effect that the temporary traffic management system will have on their journey and safety. Any traffic counts and assessment should also, as far as reasonably practicable, identify informal routes used by NMU or potential routes used due to displacement. The final ES should identify the temporary traffic management system design principles or standards that will be maintained with specific reference to NMU. The scheme should identify opportunities to contribute to improved infrastructure provision for active travel and physical activity.

Mental health

The scoping report list the potential effects on human health (para 13.7.23) but makes no reference to mental health within the impact assessment. Mental wellbeing is fundamental to achieving a healthy, resilient and thriving population. It underpins healthy lifestyles, physical health, educational attainment, employment and productivity, relationships, community safety and cohesion and quality of life. The scheme has identified both temporary and long term impacts, including the demolition of two domestic properties, with the effects on farmers yet to be identified. A scheme of this scale and nature has impacts on the over-arching protective factors, which are:

- Enhancing control
- Increasing resilience and community assets
- Facilitating participation and promoting inclusion.

Recommendation

We believe mental health should be scoped into any assessment with parity between mental and physical health, and any assessment of health impact should include the appreciation of both. A systematic approach to the assessment of the impacts on mental health, including suicide, is required.

A recognised methodology supported by PHE is the **Mental Wellbeing Impact Assessment (MWIA)**. The assessment should identify vulnerable populations and provide clear mitigation strategies that are adequately linked to any local services or assets.

The supporting evidence that outlines the broad themes that should be addressed by all promoters when preparing an ES for inclusion with an NSIP submission can be provided on request. We are happy to assist and discuss proposals further in the light of this advice.

For and on behalf of Public Health England nsipconsultations@phe.gov.uk

Please mark any correspondence for the attention of National Infrastructure Planning Administration.

Appendix: PHE recommendations regarding the scoping document

General approach

The EIA should give consideration to best practice guidance such as the Government's Good Practice Guide for EIA¹. It is important that the EIA identifies and assesses the potential public health impacts of the activities at, and emissions from, the installation. Assessment should consider the development, operational, and decommissioning phases.

It is not PHE's role to undertake these assessments on behalf of promoters as this would conflict with PHE's role as an impartial and independent body.

Consideration of alternatives (including alternative sites, choice of process, and the phasing of construction) is widely regarded as good practice. Ideally, EIA should start at the stage of site and process selection, so that the environmental merits of practicable alternatives can be properly considered. Where this is undertaken, the main alternatives considered should be outlined in the ES².

The following text covers a range of issues that PHE would expect to be addressed by the promoter. However this list is not exhaustive and the onus is on the promoter to ensure that the relevant public health issues are identified and addressed. PHE's advice and recommendations carry no statutory weight and constitute non-binding guidance.

Receptors

The ES should clearly identify the development's location and the location and distance from the development of off-site human receptors that may be affected by emissions from, or activities at, the development. Off-site human receptors may include people living in residential premises; people working in commercial, and industrial premises and people using transport infrastructure (such as roads and railways), recreational areas, and publicly-accessible land. Consideration should also be given to environmental receptors such as the surrounding land, watercourses, surface and groundwater, and drinking water supplies such as wells, boreholes and water abstraction points.

Impacts arising from construction and decommissioning

Any assessment of impacts arising from emissions due to construction and decommissioning should consider potential impacts on all receptors and describe monitoring and mitigation during these phases. Construction and decommissioning will be associated with vehicle movements and cumulative impacts should be accounted for.

We would expect the promoter to follow best practice guidance during all phases from construction to decommissioning to ensure appropriate measures are in place

¹ Environmental Impact Assessment: A guide to good practice and procedures - A consultation paper; 2006; Department for Communities and Local Government. Available from:

http://webarchive.nationalarchives.gov.uk/20100410180038/http:/communities.gov.uk/planningandbuilding/planning/sustainabilityenvironmental/environmentalimpactassessment/

² DCLG guidance, 1999 http://www.communities.gov.uk/documents/planningandbuilding/pdf/155958.pdf

to mitigate any potential impact on health from emissions (point source, fugitive and traffic-related). An effective Construction Environmental Management Plan (CEMP) (and Decommissioning Environmental Management Plan (DEMP)) will help provide reassurance that activities are well managed. The promoter should ensure that there are robust mechanisms in place to respond to any complaints of traffic-related pollution, during construction, operation, and decommissioning of the facility.

Emissions to air and water

Significant impacts are unlikely to arise from installations which employ Best Available Techniques (BAT) and which meet regulatory requirements concerning emission limits and design parameters. However, PHE has a number of comments regarding emissions in order that the EIA provides a comprehensive assessment of potential impacts.

When considering a baseline (of existing environmental quality) and in the assessment and future monitoring of impacts these:

- should include appropriate screening assessments and detailed dispersion modelling where this is screened as necessary
- should encompass <u>all</u> pollutants which may be emitted by the installation in combination with <u>all</u> pollutants arising from associated development and transport, ideally these should be considered in a single holistic assessment
- should consider the construction, operational, and decommissioning phases
- should consider the typical operational emissions and emissions from start-up, shut-down, abnormal operation and accidents when assessing potential impacts and include an assessment of worst-case impacts
- should fully account for fugitive emissions
- should include appropriate estimates of background levels
- should identify cumulative and incremental impacts (i.e. assess cumulative impacts from multiple sources), including those arising from associated development, other existing and proposed development in the local area, and new vehicle movements associated with the proposed development; associated transport emissions should include consideration of non-road impacts (i.e. rail, sea, and air)
- should include consideration of local authority, Environment Agency, Defra national network, and any other local site-specific sources of monitoring data
- should compare predicted environmental concentrations to the applicable standard or guideline value for the affected medium (such as UK Air Quality Standards and Objectives and Environmental Assessment Levels)
 - If no standard or guideline value exists, the predicted exposure to humans should be estimated and compared to an appropriate health-based value (a Tolerable Daily Intake or equivalent). Further guidance is provided in Annex 1
 - This should consider all applicable routes of exposure e.g. include consideration of aspects such as the deposition of chemicals emitted to air and their uptake via ingestion
- should identify and consider impacts on residential areas and sensitive receptors (such as schools, nursing homes and healthcare facilities) in the area(s) which may be affected by emissions, this should include consideration of any new receptors arising from future development

Whilst screening of impacts using qualitative methodologies is common practice (e.g. for impacts arising from fugitive emissions such as dust), where it is possible to undertake a quantitative assessment of impacts then this should be undertaken. PHE's view is that the EIA should appraise and describe the measures that will be used to control both point source and fugitive emissions and demonstrate that standards, guideline values or health-based values will not be exceeded due to emissions from the installation, as described above. This should include consideration of any emitted pollutants for which there are no set emission limits. When assessing the potential impact of a proposed installation on environmental quality, predicted environmental concentrations should be compared to the permitted concentrations in the affected media; this should include both standards for short and long-term exposure.

Additional points specific to emissions to air

When considering a baseline (of existing air quality) and in the assessment and future monitoring of impacts these:

- should include consideration of impacts on existing areas of poor air quality e.g. existing or proposed local authority Air Quality Management Areas (AQMAs)
- should include modelling using appropriate meteorological data (i.e. come from the nearest suitable meteorological station and include a range of years and worst case conditions)
- should include modelling taking into account local topography

Additional points specific to emissions to water

When considering a baseline (of existing water quality) and in the assessment and future monitoring of impacts these:

- should include assessment of potential impacts on human health and not focus solely on ecological impacts
- should identify and consider all routes by which emissions may lead to population exposure (e.g. surface watercourses; recreational waters; sewers; geological routes etc.)
- should assess the potential off-site effects of emissions to groundwater (e.g. on aquifers used for drinking water) and surface water (used for drinking water abstraction) in terms of the potential for population exposure
- should include consideration of potential impacts on recreational users (e.g. from fishing, canoeing etc) alongside assessment of potential exposure via drinking water

Land quality

We would expect the promoter to provide details of any hazardous contamination present on site (including ground gas) as part of the site condition report. Emissions to and from the ground should be considered in terms of the previous history of the site and the potential of the site, once operational, to give rise to issues. Public health impacts associated with ground contamination and/or the migration of material off-site should be assessed³ and the potential impact on nearby receptors and control and mitigation measures should be outlined.

³ Following the approach outlined in the section above dealing with emissions to air and water i.e. comparing predicted environmental concentrations to the applicable standard or guideline value for the affected medium (such as Soil Guideline Values)

Relevant areas outlined in the Government's Good Practice Guide for EIA include:

- effects associated with ground contamination that may already exist
- effects associated with the potential for polluting substances that are used (during construction / operation) to cause new ground contamination issues on a site, for example introducing / changing the source of contamination
- impacts associated with re-use of soils and waste soils, for example, re-use of site-sourced materials on-site or offsite, disposal of site-sourced materials offsite, importation of materials to the site, etc.

Waste

The EIA should demonstrate compliance with the waste hierarchy (e.g. with respect to re-use, recycling or recovery and disposal).

For wastes arising from the installation the EIA should consider:

- the implications and wider environmental and public health impacts of different waste disposal options
- disposal route(s) and transport method(s) and how potential impacts on public health will be mitigated

Other aspects

Within the EIA PHE would expect to see information about how the promoter would respond to accidents with potential off-site emissions e.g. flooding or fires, spills, leaks or releases off-site. Assessment of accidents should: identify all potential hazards in relation to construction, operation and decommissioning; include an assessment of the risks posed; and identify risk management measures and contingency actions that will be employed in the event of an accident in order to mitigate off-site effects.

The EIA should include consideration of the COMAH Regulations (Control of Major Accident Hazards) and the Major Accident Off-Site Emergency Plan (Management of Waste from Extractive Industries) (England and Wales) Regulations 2009: both in terms of their applicability to the installation itself, and the installation's potential to impact on, or be impacted by, any nearby installations themselves subject to the these Regulations.

There is evidence that, in some cases, perception of risk may have a greater impact on health than the hazard itself. A 2009 report⁴, jointly published by Liverpool John Moores University and the HPA, examined health risk perception and environmental problems using a number of case studies. As a point to consider, the report suggested: "Estimation of community anxiety and stress should be included as part of every risk or impact assessment of proposed plans that involve a potential environmental hazard. This is true even when the physical health risks may be negligible." PHE supports the inclusion of this information within EIAs as good practice.

Electromagnetic fields (EMF)

⁴ Available from: http://www.cph.org.uk/wp-content/uploads/2012/08/health-risk-perception-and-environmental-problems-summary-report.pdf

This statement is intended to support planning proposals involving electrical installations such as substations and connecting underground cables or overhead lines. PHE advice on the health effects of power frequency electric and magnetic fields is available in the following link:

https://www.gov.uk/government/collections/electromagnetic-fields#low-frequency-electric-and-magnetic-fields

There is a potential health impact associated with the electric and magnetic fields around substations, and power lines and cables. The field strength tends to reduce with distance from such equipment.

The following information provides a framework for considering the health impact associated with the electric and magnetic fields produced by the proposed development, including the direct and indirect effects of the electric and magnetic fields as indicated above.

Policy Measures for the Electricity Industry

The Department of Energy and Climate Change has published a voluntary code of practice which sets out key principles for complying with the ICNIRP guidelines:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/37447/1256-code-practice-emf-public-exp-guidelines.pdf

Companion codes of practice dealing with optimum phasing of high voltage power lines and aspects of the guidelines that relate to indirect effects are also available:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/48309/1255-code-practice-optimum-phasing-power-lines.pdf

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/22476 6/powerlines_vcop_microshocks.pdf

Exposure Guidelines

PHE recommends the adoption in the UK of the EMF exposure guidelines published by the International Commission on Non-ionizing Radiation Protection (ICNIRP). Formal advice to this effect was published by one of PHE's predecessor organisations (NRPB) in 2004 based on an accompanying comprehensive review of the scientific evidence:-

http://webarchive.nationalarchives.gov.uk/20140629102627/http://www.hpa.org.uk/Publications/Radiation/NPRBArchive/DocumentsOfTheNRPB/Absd1502/

Updates to the ICNIRP guidelines for static fields have been issued in 2009 and for low frequency fields in 2010. However, Government policy is that the ICNIRP

guidelines are implemented in line with the terms of the 1999 EU Council Recommendation on limiting exposure of the general public (1999/519/EC):

http://webarchive.nationalarchives.gov.uk/+/www.dh.gov.uk/en/Publichealth/Healthprotection/DH_4089500

Static magnetic fields

For static magnetic fields, the ICNIRP guidelines published in 2009 recommend that acute exposure of the general public should not exceed 400 mT (millitesla), for any part of the body, although the previously recommended value of 40 mT is the value used in the Council Recommendation. However, because of potential indirect adverse effects, ICNIRP recognises that practical policies need to be implemented to prevent inadvertent harmful exposure of people with implanted electronic medical devices and implants containing ferromagnetic materials, and injuries due to flying ferromagnetic objects, and these considerations can lead to much lower restrictions, such as 0.5 mT.

Power frequency electric and magnetic fields

At 50 Hz, the known direct effects include those of induced currents in the body on the central nervous system (CNS) and indirect effects include the risk of painful spark discharge on contact with metal objects exposed to the field. The ICNIRP guidelines published in 1998 give reference levels for public exposure to 50 Hz electric and magnetic fields, and these are respectively 5 kV m $^{-1}$ (kilovolts per metre) and 100 μ T (microtesla). The reference level for magnetic fields changes to 200 μ T in the revised (ICNIRP 2010) guidelines because of new basic restrictions based on induced electric fields inside the body, rather than induced current density. If people are not exposed to field strengths above these levels, direct effects on the CNS should be avoided and indirect effects such as the risk of painful spark discharge will be small. The reference levels are not in themselves limits but provide guidance for assessing compliance with the basic restrictions and reducing the risk of indirect effects.

Long term effects

There is concern about the possible effects of long-term exposure to electromagnetic fields, including possible carcinogenic effects at levels much lower than those given in the ICNIRP guidelines. In the NRPB advice issued in 2004, it was concluded that the studies that suggest health effects, including those concerning childhood leukaemia, could not be used to derive quantitative guidance on restricting exposure. However, the results of these studies represented uncertainty in the underlying evidence base, and taken together with people's concerns, provided a basis for providing an additional recommendation for Government to consider the need for further precautionary measures, particularly with respect to the exposure of children to power frequency magnetic fields.

The Stakeholder Advisory Group on ELF EMFs (SAGE)

SAGE was set up to explore the implications for a precautionary approach to extremely low frequency electric and magnetic fields (ELF EMFs), and to make practical recommendations to Government:

http://www.emfs.info/policy/sage/

SAGE issued its First Interim Assessment in 2007, making several recommendations concerning high voltage power lines. Government supported the implantation of low cost options such as optimal phasing to reduce exposure; however it did not support not support the option of creating corridors around power lines on health grounds, which was considered to be a disproportionate measure given the evidence base on the potential long term health risks arising from exposure. The Government response to SAGE's First Interim Assessment is available here:

http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_107124

The Government also supported calls for providing more information on power frequency electric and magnetic fields, which is available on the PHE web pages (see first link above).

lonising radiation

Particular considerations apply when an application involves the possibility of exposure to ionising radiation. In such cases it is important that the basic principles of radiation protection recommended by the International Commission on Radiological Protection⁵ (ICRP) are followed. PHE provides advice on the application of these recommendations in the UK. The ICRP recommendations are implemented in the Euratom Basic Safety Standards⁶ (BSS) and these form the basis for UK legislation, including the Ionising Radiation Regulations 1999, the Radioactive Substances Act 1993, and the Environmental Permitting Regulations 2016.

PHE expects promoters to carry out the necessary radiological impact assessments to demonstrate compliance with UK legislation and the principles of radiation protection. This should be set out clearly in a separate section or report and should not require any further analysis by PHE. In particular, the important principles of justification, optimisation and radiation dose limitation should be addressed. In addition compliance with the Euratom BSS and UK legislation should be clear.

When considering the radiological impact of routine discharges of radionuclides to the environment PHE would expect to see a full radiation dose assessment considering both individual and collective (population) doses for the public and, where necessary, workers. For individual doses, consideration should be given to those members of the public who are likely to receive the highest exposures (referred to as the representative person, which is equivalent to the previous term, critical group). Different age groups

⁵ These recommendations are given in publications of the ICRP notably publications 90 and 103 see the website at http://www.icrp.org/

http://www.icrp.org/
⁶ Council Directive 96/29/EURATOM laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionising radiation.

should be considered as appropriate and should normally include adults, 1 year old and 10 year old children. In particular situations doses to the fetus should also be calculated⁷. The estimated doses to the representative person should be compared to the appropriate radiation dose criteria (dose constraints and dose limits), taking account of other releases of radionuclides from nearby locations as appropriate. Collective doses should also be considered for the UK, European and world populations where appropriate. The methods for assessing individual and collective radiation doses should follow the guidance given in 'Principles for the Assessment of Prospective Public Doses arising from Authorised Discharges of Radioactive Waste to the Environment August 2012 ⁸.It is important that the methods used in any radiological dose assessment are clear and that key parameter values and assumptions are given (for example, the location of the representative persons, habit data and models used in the assessment).

Any radiological impact assessment should also consider the possibility of short-term planned releases and the potential for accidental releases of radionuclides to the environment. This can be done by referring to compliance with the Ionising Radiation Regulations and other relevant legislation and guidance.

The radiological impact of any solid waste storage and disposal should also be addressed in the assessment to ensure that this complies with UK practice and legislation; information should be provided on the category of waste involved (e.g. very low level waste, VLLW). It is also important that the radiological impact associated with the decommissioning of the site is addressed. Of relevance here is PHE advice on radiological criteria and assessments for land-based solid waste disposal facilities9. PHE advises that assessments of radiological impact during the operational phase should be performed in the same way as for any site authorised to discharge radioactive waste. PHE also advises that assessments of radiological impact during the post operational phase of the facility should consider long timescales (possibly in excess of 10,000 years) that are appropriate to the long-lived nature of the radionuclides in the waste, some of which may have half-lives of millions of years. The radiological assessment should consider exposure of members of hypothetical representative groups for a number of scenarios including the expected migration of radionuclides from the facility, and inadvertent intrusion into the facility once institutional control has ceased. For scenarios where the probability of occurrence can be estimated, both doses and health risks should be presented, where the health risk is the product of the probability that the scenario occurs, the dose if the scenario occurs and the health risk corresponding to unit dose. For inadvertent intrusion, the dose if the intrusion occurs should be presented. It is recommended that the post-closure phase be considered as a series of timescales, with the approach changing from more quantitative to more qualitative as times further in the future are considered. The level

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⁷ HPA (2008) Guidance on the application of dose coefficients for the embryo, fetus and breastfed infant in dose assessments for members of the public. Doc HPA, RCE-5, 1-78, available at https://www.gov.uk/government/publications/embryo-fetus-and-breastfed-infant-application-of-dose-coefficients

coefficients

8 The Environment Agency (EA), Scottish Environment Protection Agency (SEPA), Northern Ireland Environment Agency, Health Protection Agency and the Food Standards Agency (FSA).

Principles for the Assessment of Prospective Public Doses arising from Authorised Discharges of Radioactive Waste to the Environment August 2012.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/296390/geho1202bklh-e-e.pdf
9 HPA RCE-8, Radiological Protection Objectives for the Land-based Disposal of Solid Radioactive Wastes, February 2009

of detail and sophistication in the modelling should also reflect the level of hazard presented by the waste. The uncertainty due to the long timescales means that the concept of collective dose has very limited use, although estimates of collective dose from the 'expected' migration scenario can be used to compare the relatively early impacts from some disposal options if required.

Annex 1

Human health risk assessment (chemical pollutants)

The points below are cross-cutting and should be considered when undertaking a human health risk assessment:

- The promoter should consider including Chemical Abstract Service (CAS) numbers alongside chemical names, where referenced in the ES
- Where available, the most recent United Kingdom standards for the appropriate media (e.g. air, water, and/or soil) and health-based guideline values should be used when quantifying the risk to human health from chemical pollutants. Where UK standards or guideline values are not available, those recommended by the European Union or World Health Organisation can be used
- When assessing the human health risk of a chemical emitted from a facility or operation, the background exposure to the chemical from other sources should be taken into account
- When quantitatively assessing the health risk of genotoxic and carcinogenic chemical pollutants PHE does not favour the use of mathematical models to extrapolate from high dose levels used in animal carcinogenicity studies to well below the observed region of a dose-response relationship. When only animal data are available, we recommend that the 'Margin of Exposure' (MOE) approach¹⁰ is used

Benford D et al. 2010. Application of the margin of exposure approach to substances in food that are genotoxic and carcinogenic. Food Chem Toxicol 48 Suppl 1: S2-24