



# **SCOPING OPINION:**

## **Proposed Bradwell B New Nuclear Power Station**

**Case Reference: EN010111**

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Adopted by the Planning Inspectorate (on behalf of the Secretary of State) pursuant to Regulation 10 of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

**November 2020**

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## CONTENTS

<b>1.</b>	<b>INTRODUCTION.....</b>	<b>1</b>
1.1	Background .....	1
1.2	The Planning Inspectorate’s Consultation.....	2
1.3	The European Union (Withdrawal Agreement) Act 2020 .....	3
<b>2.</b>	<b>THE PROPOSED DEVELOPMENT .....</b>	<b>4</b>
2.1	Introduction .....	4
2.2	Description of the Proposed Development.....	4
2.3	The Planning Inspectorate’s Comments.....	5
<b>3.</b>	<b>ES APPROACH.....</b>	<b>10</b>
3.1	Introduction .....	10
3.2	Relevant National Policy Statements (NPSs).....	11
3.3	Scope of Assessment .....	11
3.4	Coronavirus (COVID-19) Environmental Information and Data Collection	14
3.5	Confidential and Sensitive Information.....	14
<b>4.</b>	<b>ASPECT BASED SCOPING TABLES.....</b>	<b>16</b>
4.1	Transport.....	16
4.2	Noise and Vibration .....	23
4.3	Air Quality .....	28
4.4	Radiological.....	34
4.5	Socioeconomics.....	38
4.6	Human Health.....	41
4.7	Climate Change.....	45
4.8	Major Accidents and Disasters .....	47
4.9	Soils, Geology and Land Use .....	50
4.10	Water Environment.....	55
4.11	Flood Risk and Drainage .....	60
4.12	Coastal Geomorphology and Hydrodynamics .....	67
4.13	Marine Water Quality and Sediments .....	71
4.14	Navigation.....	74
4.15	Landscape and Visual Amenity.....	77
4.16	Recreation.....	81
4.17	Historic Environment: Terrestrial and Marine.....	82
4.18	Biodiversity: Terrestrial and Freshwater Ecology and Ornithology .....	88
4.19	Marine Ecology and Fisheries.....	89
<b>5.</b>	<b>INFORMATION SOURCES .....</b>	<b>95</b>



**APPENDIX 1: CONSULTATION BODIES FORMALLY CONSULTED**

**APPENDIX 2: RESPONDENTS TO CONSULTATION AND COPIES OF REPLIES**



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# 1. INTRODUCTION

## 1.1 Background

- 1.1.1 On 07 October 2020, the Planning Inspectorate (the Inspectorate) on behalf of the Secretary of State (SoS) received a scoping request from Bradwell Power Generation Company Limited (the Applicant) under Regulation 10 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) for the proposed Bradwell B New Nuclear Power Station (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 reports entitled Volume 1: Scoping Report and Appendices (the Scoping Report), Volume 2: Figures (the Scoping Report, Volume 2) and the Revised Site Plan.
- 1.1.4 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.
- 1.1.5 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.
- 1.1.6 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.*
- 1.1.7 This Opinion has taken into account the requirements of the EIA Regulations as well as current best practice towards preparation of an ES.
- 1.1.8 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).
- 1.1.9 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).

- 1.1.10 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.
- 1.1.11 Regulation 10(3) of the EIA Regulations states that a request for a scoping opinion must include:
- (e) a plan sufficient to identify the land;*
  - (f) a description of the proposed development, including its location and technical capacity;*
  - (g) an explanation of the likely significant effects of the development on the environment; and*
  - (h) such other information or representations as the person making the request may wish to provide or make.*
- 1.1.12 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.
- 1.1.13 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)'.
- 1.1.14 The Inspectorate notes the potential need to carry out an assessment under The Conservation of Habitats and Species Regulations 2017 (the Habitats Regulations). This assessment must be co-ordinated with the EIA in accordance with Regulation 26 of the EIA Regulations. The Applicant's ES should therefore be co-ordinated with any assessment made under the Habitats Regulations.

## **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 The European Union (Withdrawal Agreement) Act 2020**

- 1.3.1 The UK left the European Union as a member state on 31 January 2020. The European Union (Withdrawal Agreement) Act 2020 gives effect to transition arrangements that last until the 31 December 2020. This provides for EU law to be retained as UK law and also brings into effect obligations which may come in to force during the transition period.
- 1.3.2 This Scoping Opinion has been prepared on the basis of retained law and references within it to European terms have also been retained for consistency with other relevant documents including relevant legislation, guidance and advice notes.

## **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 Section 3 of the Scoping Report.

2.2.2 The Proposed Development is for a new nuclear power plant located on the banks of the River Blackwater in the Dengie Peninsula, Maldon, Essex which includes both onsite and off-site development features. The 'main development site' is detailed in Section 3.4 of the Scoping Report and is proposed to include two UK HPR1000 nuclear reactors with an expected gross combined output of 2,200MW per annum, two turbine halls, cooling infrastructure, flood defences, construction of a raised platform for safety critical elements (anticipated to be 7.5m Above Ordnance Datum (AOD), and associated temporary storage, waste, access, offices, welfare, utilities, transmission and security infrastructure. The main development site is served by the B1021, B1010, B1012 and B1018.

2.2.3 A marine transport facility adjacent to the main development site and extending into the River Blackwater is proposed. To transport the marine dredged aggregate to the main development site, a conveyance pipeline and settlement lagoon of 10ha are being considered.

2.2.4 The 'off-site development' is described in Sections 3.5 and 3.6 of the Scoping Report and includes a permanent mobile emergency equipment garage, alternative emergency control centre, environmental survey laboratory, worker accommodation (up to 4,500 workers), temporary park and ride facilities, freight management facilities, offices, welfare and training facilities and highway works (upgrading, bypassing, realignments and new sections).

2.2.5 The main development site is depicted on Figure 3.1 of the Scoping Report and a revised site plan was submitted to the Inspectorate on 07 October 2020 that depicts all elements of the Proposed Development, including off-site development. The precise location of the 'off-site development' is yet to be determined; however, indicative search areas for elements including the park and ride and freight management facilities are depicted on Figures 3.5 and 3.6 respectively.

2.2.6 Off-site rail infrastructure is also being considered as part of the transport strategy to serve the site with materials during construction, but it is unknown whether it will be taken forward and therefore has been omitted from the scope of the assessment. Should it be taken forward, the Scoping Report states that

the extent of the works will be defined, and consultation and re-scoping will be undertaken if deemed necessary.

- 2.2.7 Construction of the Proposed Development will take place over 9 to 12 years; restoration will be undertaken in the last 2 to 3 years of the construction phase where all temporary land use will be restored to its original state. The lifetime of the Proposed Development is anticipated to be 60 years after which it will be decommissioned. The Applicant states that decommissioning activities will not be included within the DCO application or ES and will be subject to a separate consent at the relevant time.
- 2.2.8 The main development site is located approximately 15km north-east of Bradwell-on-sea and immediately south-east of the existing Bradwell A Nuclear Power Plant; this ceased operation in 2002 and, since 2018, has been in the care and maintenance phase. Within 10km of the main development site, the Scoping Report identifies 14 internationally and 11 nationally designated sites, 8 of these coincide with or are within close proximity to the main development site (see Figure 23.4, Scoping Report, Volume 2). A number of heritage assets are located within the main development site including three scheduled monuments (see Scoping Report, Volume 2, Figure 22.1). The north-east of the site is predominantly located in flood risk zones 2 and 3 and protected along these boundaries by existing flood defence embankments of 4 to 5m AOD. A Water Framework Directive (WFD) groundwater body is located in the south-west of the site whilst WFD transitional and coastal bodies are located to the north-west and north-east of the site, respectively.
- 2.2.9 The precise location of the off-site development is currently unknown and therefore no specific areas have been characterised. Paragraphs 3.3.37 to 3.3.18 of the Scoping Report summarise the area as predominantly agricultural with intermittent urban settlements and identify main transport links including highways, railways and port infrastructure in the administrative areas of Maldon and Chelmsford councils. The Scoping Report (Volume 1, paragraphs 15.5.95 to 15.5.113 and Volume 2, Figures 22.5 and 22.6) identify heritage assets, WFD waterbodies, and a Source Protection Zone (SPZ) located on/around the search areas for off-site development.

## **2.3 The Planning Inspectorate's Comments**

### **Description of the Proposed Development**

- 2.3.1 The Planning Inspectorate notes that the location of many of the elements of the Proposed Development are not yet defined and that the redline boundary may change in future iterations. In particular, only limited information has been provided in relation to the nature and location of many off-site elements. The uncertainty and lack of detailed information provided in the Scoping Report has constrained the ability of the Inspectorate, and potentially consultees, to provide meaningful comments on its content and in some cases (particularly in relation to the likely impacts associated with off-site elements) has prevented the Inspectorate from being able to agree to scope matters out of the assessment at this time.

- 2.3.2 The maximum parameters are not defined in the Scoping Report, such as anticipated areas in hectares and proposed dimensions (maximum and minimum heights, footprints, etc) of structures. The location and extent of the elements that make up the Proposed Development are unclear as they are not identified on related Figures (the Revised Site Plan submitted to the Planning Inspectorate on 7 October 2020 or Figure 3.2 of Volume 2 of the Scoping Report). For example, the marine transport facility is described as being located in the main development site, however, it is shown as located outside of the main development site in the 'zone for marine infrastructure' on related Figures; no information is provided on construction activities required, its location, design or extent. Some other key examples of elements that lack any such detail are the bridge proposed to cross flood defences, the conveyance pipeline and the settlement lagoon.
- 2.3.3 The ES must include a description of the Proposed Development and its maximum parameters including the site, location of features, design, site topography and AOD, whether they are temporary or permanent, size and extent, associated construction activities and plant machinery required for their construction and other relevant features, and should be supported by accurate figures. These maximum parameters and construction activities should align with those secured in the DCO. Further comments relating to the assessment of impacts associated with these structures are provided in the aspect tables in Section 4 of this Scoping Opinion.
- 2.3.4 The description of the development in the ES should clearly explain the changes to the location (including any changes to the redline boundary) and design of the Proposed Development that have occurred since the time of scoping and detail how such changes affect the baseline assessments, including aspect and receptor-specific study areas, as previously set out and defined in the Scoping Report. The relevant assessments and figures should be presented in the ES. Where uncertainty exists and flexibility is sought, this should be explained not only in terms of 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 the likely 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.
- 2.3.5 The Scoping Report provides an outline of the construction phasing in paragraphs 3.4.23 to 3.4.39 and Plate 3.1 but omits when some elements of the Proposed Development (such as the bridge, conveyance pipe, lagoon and marine infrastructure) will be constructed and over what time period. The ES should clearly set out the proposed phasing of all works and include details, such as the anticipated timescales associated. Such detail will be relevant to assessments in the ES. This should include information on how the timescales of the various elements of off-site development are related to the phasing of the main development site.
- 2.3.6 Scoping Report paragraphs 3.4.23 to 3.4.39 omit certain details relevant to the construction, eg plant machinery (numbers and type) and quantities of



resources required/used. Additionally, there are discrepancies in the Scoping Report, eg references to the operational capacity of 2,200MW per annum (paragraph 3.2.1) and 2,340MW per annum (paragraph 1.1.1). The Applicant should make efforts to ensure that the ES avoids such discrepancies. The ES should also quantify the resources involved in the construction and operation process where they are relevant to the assessment of significant effects. Any potential impacts arising from the use, movement, storage and/or sourcing of these resources should be assessed where significant effects on the environment are likely.

- 2.3.7 The Inspectorate acknowledges that the Applicant intends to construct off-site development but the precise location, receiving environment and maximum parameters (site, design, extent and size) remain unknown. Only indicative search areas are provided for the accommodation, park and ride, freight management facilities and highway improvements during peak construction. These elements have been identified in the Revised Site Plan but it is unclear whether these locations are finalised or subject to ongoing refinement. The Scoping Report paragraphs 4.5.2 to 4.5.4 states that an optioneering process will refine the locations for off-site development. Additionally, it remains to be decided whether rail infrastructure will be included in the Application. Accordingly, the Inspectorate can only provide limited comment on the scope of the assessment of the off-site development as a result of the current level of information provided. The Applicant should make efforts to ensure that the ES includes the necessary information to describe and assess the significant effects of the off-site elements of the Proposed Development.
- 2.3.8 Additionally, such lack of information feeds into unknown elements of the transport strategy, ie the role rail might play and number and route of HVG movements for off-site development. The Applicant should ensure that the approach to the implementation of the transport strategy is agreed early in the process as this will form the basis of the assessments in the ES. The ES should describe the proposed works and explain how they form part of the chosen strategy, and any likely significant effects arising from the chosen strategy should be assessed in the ES.
- 2.3.9 Paragraphs 3.4.59 and 3.4.60 of the Scoping Report explain that decommissioning will not be assessed in the ES but will instead be subject to a separate consultation and consenting process, and decommissioning activities will commence as soon as the Proposed Development reaches the end of its lifetime. The Inspectorate acknowledges that decommissioning will be subject to separate consents from the Office for Nuclear Regulation (ONR). The Inspectorate considers that a high-level environmental assessment of the decommissioning of the Proposed Development should be provided in the ES and considers that the process and methods of decommissioning should be explained, and options presented in the ES, where possible. The assessment should provide information about the predicted future baseline which has been applied to the assessment of decommissioning effects. The estimated timescales for the life span of the Proposed Development should also be set out, along with an indication of the certainty in this regard. The sensitivity of the findings in the assessment to any departure or deviation from the estimated timescales should be explained.

- 2.3.10 It is anticipated that in the last 2 to 3 years of the construction phase there will be a 'site restoration' of the Proposed Development (Scoping Report, Volume 1, Plate 3.1). This involves decommissioning of all temporary elements of the Proposed Development; however, it remains unclear in the Scoping Report which elements are temporary. The ES should identify which elements of the Proposed Development are temporary, how this is determined, and whether they will be decommissioned. The ES should assess the likely significant effects associated with the construction and decommissioning of the temporary elements of the Proposed Development.
- 2.3.11 Scoping Report paragraph 3.6.5 states that permanent accommodation for 4,500 workers will be delivered as part of the off-site associated development. The Applicant should be aware that the 'Planning Act 2008: Guidance on Nationally Significant Infrastructure Projects and Housing' states (in paragraph 17) states that permanent housing sought through a DCO should be limited to 500 workers. An exception may be made where housing is based on the functional need of the development and the developer can provide housing of a standard which will allow it to be retained as permanent dwellings. The ES should assess impacts from the accommodation proposed where significant effects are likely.
- 2.3.12 The Inspectorate notes that the operational life of the Proposed Development is anticipated to be 60 years, while the life of the spent fuel storage element of the development would be at least 100 years, and is anticipated to be capable of operating independently beyond the life of the operational power station. The ES should describe how the facilities associated with the management of spent fuel storage are likely to be maintained and assess any significant effects associated with these activities.
- 2.3.13 Some aspect chapters of the Scoping Report refer to the need for cross-reference to other technical assessments where relevant significant effects are identified. The ES must clearly identify inter-relationships between assessments and provide explicit cross-references so that the potential effects of the Proposed Development can be fully understood. This should include inter-relationships between aspects (for example but not limited to: radiological effects and human health; changes to air quality and ecological effects; soils and geology and flood risk; visual effects and effects on heritage assets), which should be assessed within each aspect chapter with cross-reference to other technical assessments as appropriate. The ES should also make it clear how effects may combine, eg how multiple effects may act together on an individual receptor.
- 2.3.14 The Scoping Report describes the overarching approach to the cumulative effects assessment in Section 5.5 but not all of the aspect chapters refer to this overarching approach or provide information where aspect-specific approaches are proposed. The ES should identify all other existing development and/or approved development likely to result in significant cumulative effects and list the other plans or projects taken forward into the detailed assessment of cumulative effects. Figures at an appropriate scale, with appropriate cross-referencing to this list would be a useful inclusion in the ES. The Inspectorate recommends that the scope of the assessment is discussed with

the local planning authorities and effort is made to seek agreement with them on the list of plans and projects to be included. The potential cumulative effects of the Proposed Development should be reported either within each of the ES technical chapters or within a discrete chapter. Further advice on undertaking a cumulative effects assessment is provided within the Inspectorate's Advice Note Seventeen.

### **Alternatives**

- 2.3.15 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'.
- 2.3.16 The Inspectorate acknowledges the Applicant's intention to consider alternatives within the ES (paragraph 4.1.4). 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**

- 2.3.17 The Inspectorate notes the Applicant's desire to incorporate flexibility into their draft DCO (dDCO) and its intention to apply a Rochdale Envelope approach for this purpose (Paragraph 3.1.5). Where the details of the Proposed Development cannot be defined precisely, the Applicant will apply a worst-case scenario. The Inspectorate welcomes the reference to Planning Inspectorate Advice Note Nine 'Using the 'Rochdale Envelope'<sup>1</sup> in this regard.
- 2.3.18 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 should 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.
- 2.3.19 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.

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<sup>1</sup> Advice Note Nine: Using the Rochdale Envelope. 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'<sup>2</sup> 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 insofar 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 consultation bodies 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 The Inspectorate has made efforts to ensure that this Scoping Opinion is informed through effective consultation with the relevant consultation bodies. Unfortunately, at this time, there may be delays in the Inspectorate receiving hard copy consultation responses and this may affect a consultation body's ability to engage with the scoping process. The Inspectorate appreciates that strict compliance with COVID-19 advice may affect a consultation body's ability to provide their consultation response. The Inspectorate considers that Applicants should make efforts to ensure that they engage effectively with consultation bodies and where necessary further develop the scope of the ES to address their concerns and advice. The ES should include information to demonstrate how such further engagement has been undertaken and how it has influenced the scope of the assessments reported in the ES.
- 3.1.5 Where relevant, the ES should provide reference to how the delivery of measures proposed to prevent/ minimise adverse effects is secured through dDCO requirements (or other suitably robust methods) and whether relevant consultation bodies agree on the adequacy of the measures proposed.
- 3.1.6 In relation to the main development site, some of the figures appended to the Scoping Report do not include all of the potential areas identified for worker

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<sup>2</sup> 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/>

accommodation that are shown on the revised site plan, such as the accommodation area shown to the south. Many other figures do not include the proposed sites of all of the off-site development, eg power station facilities and temporary facilities. As a result, the proposed study areas may not encompass all of the areas in which sensitive receptors could be affected by the Proposed Development. The study areas must be sufficient to capture all potential receptors which could experience a significant effect and must encompass the location of all the elements of the Proposed Development as described in the application ES. All figures and plans included in the ES and its appendices must be consistent with the application and ES plans that delineate the DCO redline boundary and elements within it.

- 3.1.7 The Scoping Report lacks detailed information on the methodologies proposed to be applied to the various assessments of the ES. The information provided in the ES should clearly describe any overarching methodology and detail in the aspect chapters where any aspect-specific methodologies depart from the standard approach.

## **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.
- 3.2.2 The designated NPSs relevant to the Proposed Development are the:
- Overarching NPS For Energy (NPS EN-1); and
  - NPS for Nuclear Power Generation (NPS EN-6).

## **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.

### **Baseline Scenario**

- 3.3.2 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**

- 3.3.3 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.
- 3.3.4 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. The Inspectorate notes the information in Chapter 5 of the Scoping Report, Section 5.3, and is satisfied with this approach.
- 3.3.5 The Scoping Report does not always define or reference the criteria to be used in individual aspect chapters in order to define the sensitivity of a receptor, magnitude of an impact and significance of an effect. The ES should clearly describe the methodology and how impact criteria is derived, with reference to relevant available guidance. Where professional judgement is used this should be clearly presented and fully justified in the ES.
- 3.3.6 Given the scale of the Proposed Development and the anticipated duration of the construction phase and indicative lifespan of the operational phase, the temporal scale of identified impacts should be estimated and set out in the ES. Should terms such as 'short-term' or 'long-term' be used these should be defined in the ES.
- 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.

### **Mitigation and Monitoring**

- 3.3.9 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 dDCO requirements or other legally binding agreements.
- 3.3.10 The ES should identify and describe any proposed monitoring of significant adverse effects and how the results of such monitoring would be utilised to inform any necessary remedial actions.

### **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 (eg that referenced in the Health and Safety Executive's (HSE's) Annex to Advice Note Eleven) 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. Paragraph 5.5.11 of

the Scoping Report states that an assessment of transboundary effects will be included in the ES.

- 3.3.15 Regulation 32 of the EIA Regulations inter alia requires the Inspectorate to publicise a DCO application on behalf of the SoS if it is of the view that the proposal is likely to have significant effects on the environment of another EEA state, and where relevant, to consult with the EEA state affected.
- 3.3.16 The Inspectorate considers that where Regulation 32 applies, this is likely to have implications for the examination of a DCO application. The Inspectorate recommends that the ES should identify whether the Proposed Development has the potential for significant transboundary effects and if so, what these are and which EEA States would be affected
- 3.3.17 The Proposed Development is for a Nuclear NSIP and as such the special arrangements for Nuclear NSIPs will be followed in accordance with advice contained in the Planning Inspectorate's Advice Note Twelve.

#### **A Reference List**

- 3.3.18 A reference list detailing the sources used for the descriptions and assessments must be included in the ES. The Applicant should ensure that referencing in the ES to other material and to other parts of the ES is accurate.

### **3.4 Coronavirus (COVID-19) Environmental Information and Data Collection**

- 3.4.1 The Inspectorate understands Government-enforced measures in response to COVID-19 may have consequences for an Applicant's ability to obtain relevant environmental information for the purposes of their ES. The Inspectorate understands that conducting specific surveys and obtaining representative data may be difficult in the current circumstances.
- 3.4.2 The Inspectorate has a duty to ensure that the environmental assessments necessary to inform a robust DCO application are supported by relevant and up to date information. Working closely with consultation bodies, the Inspectorate will seek to adopt a flexible approach, balancing the requirement for suitable rigour and scientific certainty in assessments with pragmatism in order to support the preparation and determination of applications in a timely fashion.
- 3.4.3 Applicants should make efforts to agree their approach to the collection and presentation of information with relevant consultation bodies. In turn the Inspectorate expects that consultation bodies will work with Applicants to find suitable approaches and points of reference to allow preparation of applications at this time. The Inspectorate is required to take into account the advice it receives from the consultation bodies and will continue to do so in this regard.

### **3.5 Confidential and Sensitive Information**

- 3.5.1 In some circumstances it will be appropriate for information to be kept confidential. In particular, this may relate to personal information specifying



the names and qualifications of those undertaking the assessments and / or 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.

- 3.5.2 Where documents are intended to remain confidential the Applicant should provide these as separate 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 2004.
- 3.5.3 The Inspectorate adheres to the data protection protocols set down by the Information Commissioners Office<sup>3</sup> . Please refer to the Inspectorate's National Infrastructure privacy notice<sup>4</sup> for further information on how personal data is managed during the Planning Act 2008 process.

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<sup>3</sup> <https://ico.org.uk>

<sup>4</sup> <https://infrastructure.planninginspectorate.gov.uk/help/privacy-notice/>

## 4. ASPECT BASED SCOPING TABLES

### 4.1 Transport

(Scoping Report Section 6)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.1.1	Paragraph 6.7.5	Marine transport effects of off-site associated developments	<p>The Scoping Report states that the off-site associated developments are likely to be terrestrial based, or will not require marine transport facilities, therefore assessment of associated marine transport effects will be scoped out.</p> <p>The locations and details of the off-site associated developments are yet to be defined. The Inspectorate agrees with this approach, provided the above assumption regarding the requirement for marine transport facilities remains the case as the design of the Proposed Development evolves. The Inspectorate advises that explanation for exclusion of this matter from the assessment, with reference to a description of the off-site development, is reported in the ES.</p>
4.1.2	Table 6.13	Potential operational effects	<p>While not stated as intentionally scoped out, Table 6.13 in the Scoping Report identifies potential operational effects on road links but does not provide justification for omitting consideration of operational effects on other transport receptors (eg rail links). The ES should identify all potential operational impacts on transport receptors where significant effects are likely to occur.</p>
4.1.3	Paragraphs 6.6.62 and 6.6.69	Assessment methodology - Magnitude of change:	<p>The approach to be taken to define receptor sensitivity and magnitude of impacts is described in the Scoping Report in these paragraphs and summarised in the tables. While not explicitly</p>

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
	and Tables 6.10, 6.11 and 6.12	<ul style="list-style-type: none"> <li>• severance</li> <li>• pedestrian delay</li> <li>• pedestrian amenity</li> </ul>	<p>stated as scoped out, criteria are applied to narrow the assessment of severance, pedestrian delay and pedestrian amenity.</p> <p>However, the Scoping Report does not explain how delay is calculated or how it may vary with the characteristics of the road. The threshold for assessment of pedestrian amenity effects is stated as tentative and the Scoping Report states that professional judgement will be applied in both cases. The Applicant should make efforts to agree the methodology and the outcomes of the assessment with the relevant LPA taking into account localised factors which affect pedestrian behaviour including accessibility, amenity and safety.</p> <p>For clarity, the Inspectorate does not agree that significant effects can be discounted using these criteria in the absence of complete traffic survey data, detailed knowledge of baseline conditions, and prior to refinement of the Proposed Development and the Transport Strategy.</p> <p>The ES should explain fully how significant effects have been identified and where professional judgement has been applied.</p>
4.1.4	Paragraph 6.6.69	Pedestrian amenity effects on road links where pedestrians are not permitted and where no pedestrian facilities exist	<p>The Inspectorate does not agree that roads where pedestrians are not permitted can be excluded from the assessment at this stage, in the absence of a definition of which routes this applies to and lack of clarity around the assumption made that these routes are not used by pedestrians. The ES should provide this clarification.</p> <p>It is not clear why the absence of pedestrian facilities leads to the exclusion of pedestrian amenity effects. 'Pedestrian facilities' are not defined in the Scoping Report. Rural roads within the study area in particular may be used by pedestrians in the absence of any such facilities, and the Inspectorate would expect the ES to apply</p>

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			<p>relevant baseline data to the assessment in this regard. The Applicant should engage with the relevant consultation bodies including the local authorities in order to agree what these facilities are, and the criteria for assessment.</p> <p>Additionally, the criteria for assessment of pedestrian amenity set out in paragraph 6.6.69 appears to be based on changes in traffic flow not the presence or absence of pedestrian facilities. The Inspectorate advises that the ES applies a consistent and clear methodology to the assessment and provides an explanation of this methodology including to what extent it has been agreed with the relevant consultation bodies.</p>

ID	Ref	Other points	Inspectorate's comments
4.1.5	Paragraph 6.1.8	Transport Assessment (TA)	<p>The Scoping Report states that a TA will accompany the ES and will set out the chosen Transport Strategy for the Proposed Development, and that the detailed assessment in the TA will be summarised in the ES. The ES should describe in sufficient detail the anticipated impacts, the resulting effects, any mitigation measures proposed and the significance of residual effects.</p>
4.1.6	Paragraphs 3.1.9, 3.1.12, 3.6.44, 6.6.3 and Table 6.4	Transport Strategy	<p>The Scoping Report states that it is not seeking an opinion in relation to any potential new rail infrastructure which may be included as part of the Transport Strategy. The Inspectorate notes that alongside this point there are a number of decisions to be made which will affect the transport strategy, eg arrangements for the park and ride and freight management facilities and the potential inclusion of marine transport elements.</p>

ID	Ref	Other points	Inspectorate's comments
			<p>The ES assessment should be based on an appropriately refined description of the Proposed Development and address issues such as alternatives/ flexibility so that a sufficiently detailed assessment of significant effects can be undertaken. Where uncertainty remains, a worst-case scenario can be assessed but effort should be made to provide certainty where possible.</p> <p>The ES should fully describe all elements of the Transport Strategy and explain how the estimates of volumes of freight movement, worker movements, timings and phasing, and distribution have informed the choices made. The Transport Strategy should define the proportional use of rail, road, and marine transport.</p> <p>Table 6.4 states that 'the Transport Strategy will set out key objectives' in the context of the Applicant's response to stakeholder comments to date. The Applicant should make efforts to agree the objectives with relevant consultation bodies. The ES should explain how specific proposals within the Transport Strategy will meet the defined objectives.</p>
4.1.7	Paragraphs 3.6.19, 3.6.21, and 6.8.2	Mitigation - Construction Traffic Management Plan (CTMP) and Construction Worker Travel Plan (CWTP)	Chapter 3 of the Scoping Report states that a CTMP for HGV movements and a CWTP for workforce travel will be implemented subject to discussions with key stakeholders. It is not clear whether both these plans will form part of the DCO application. However, paragraph 6.8.2 includes reference to a 'Travel Plan' and the CTMP as 'potential' mitigation. The ES should describe the mitigation relied on to inform the assessment of significant effects. The ES should also explain to what extent such mitigation is agreed with relevant consultation bodies and how it is to be secured.
4.1.8	Paragraph 3.6.28	Mitigation - general	Paragraph 3.6.28 states that some measures (eg signalling, signage, pedestrian crossings, certain highways improvements) could be consented outside of the DCO process and potentially

ID	Ref	Other points	Inspectorate's comments
			constructed in advance of the main development site. No specific reference to these measures is made in Chapter 6. The Applicant should ensure that any measures the ES relies upon as mitigation are described in the ES and appropriately secured.
4.1.9	Paragraph 3.6.34, Figure 3.4	Mitigation measures and implications of Transport Strategy	<p>The Scoping Report identifies the potential for bypass construction and/or new off-line sections of highways. The locations and alignments of these are not identified, however Figure 3.4 depicts the proposed strategic routes under consideration.</p> <p>The Transport Strategy will need to be defined in order to inform the design and delivery, including the timing and phasing, of these mitigation measures. The ES must clearly describe these measures and detail where any flexibility exists, if flexibility is required. The ES should assess the significant environmental effects of the Proposed Development, including those resulting from works required to deliver mitigation measures for transportation effects.</p>
4.1.10	Paragraphs 3.4.21, 3.6.15, and 6.6.48	Traffic modelling – project assumptions and parameters	<p>Paragraph 3.4.21 provides information on the anticipated peak construction workforce and phasing but does not include any assumptions about working hours. Chapter 6 explains the approach to the traffic modelling intended to support the ES and paragraph 6.6.48 states that the model will be developed to cover a working week of Monday to Friday 06:00 to 19:00 to capture development peaks. The ES should clearly explain any assumptions applied in the traffic model and those relevant to identification of peak periods (which should be consistent throughout the ES and with the description in the dDCO). The ES should assess the impacts of the Proposed Development, including those associated with construction working hours where significant effects are likely.</p> <p>Paragraph 3.6.15 of the Scoping Report states that the estimate of HGV movements excludes those associated with off-site associated</p>

ID	Ref	Other points	Inspectorate's comments
			development as these proposals are still emerging. The ES should assess all transport impacts from the Proposed Development, including off-site development, where effects could be significant.
4.1.11	Paragraph 6.1.6	Relationship to other environmental aspect assessments	Chapter 6 of the Scoping Report notes that reference should be made to Chapter 7 (Noise and Vibration), Chapter 8 (Air Quality), Chapter 10 (Socio-economics), Chapter 20 (Landscape and Visual Impact Amenity), and Chapter 21 (Recreation). Chapter 6 does not however set out how the TA reported in the ES will inform the other assessments reported in the listed ES chapters. The ES should take a consistent approach between assessments, as appropriate, and where inter-relationships between assessments occur the residual environmental effects should also be assessed to identify significance.
4.1.12	Paragraph 6.1.9 and Table 6.9	Limitations to the assessment	Paragraph 6.1.9 mentions that historic traffic data has been used to inform the Scoping Report as project specific traffic surveys have not been possible due to the effects of the Covid-19 pandemic. Table 6.9 refers to planned additional traffic surveys in 2020 with a caveat that surveys will not be undertaken when traffic levels will not be considered to be representative. The Inspectorate welcomes the intention to gather project-specific data which is likely to improve the robustness of the assessment. The Applicant should refer to the advice contained in Section 3.4 of this Scoping Opinion with regards to environmental information and data collection in light of the Covid-19 pandemic.
4.1.13	Paragraph 6.4.2, and Figures 6.1, 6.2	Study area	The Scoping Report states that the study area for the assessment of transport effects has been agreed with Essex County Council (ECC) and refers to Figure 6.1. No more information is provided around the determination of the study area, and it is noted that it does not extend to strategic routes to the south of Essex. The ES should

ID	Ref	Other points	Inspectorate's comments
			<p>provide a full explanation of how the study area has been determined, including details of consultation with relevant local authorities. Figure 6.2 depicts bridleways and footpaths in the vicinity of the area denoted as the Main Development site, however, paragraph 6.5.5 states this figure is a small section of the definitive map. The extent of the Public Rights of Way (PRoW) study area is not clearly defined. The ES should define this study area and include a figure of the entire DCO boundary as it relates to affected PRoW.</p>
4.1.14	Paragraphs 6.5.41 and 6.6.57	Cumulative assessment and future baseline	<p>The Scoping Report states that the scope of the cumulative assessment is under discussion with ECC and the scope of the future baseline including other development will be arrived at as part of this work. It will be essential for the Applicant to gather accurate information on other plans and projects to include within the cumulative assessment, and the ES should clearly define the assessment years applied. The Applicant should engage with local authorities and other relevant consultation bodies and seek to agree the information used to inform the assessment.</p> <p>Paragraph 6.6.57 states that the Transport chapter of the ES will assess the baseline, future baseline and future baseline plus development scenarios for road transport only. While it is understood that certain matters will be assessed in other chapters of the ES, eg the Navigation chapter, the Inspectorate would expect the same applicable assessment scenarios to be applied to all transport receptors included in the transport assessment, eg marine, rail, and non-motorised routes. The ES should provide details of the assessment scenarios used and justification for how these have been applied.</p>



## 4.2 Noise and Vibration

(Scoping Report Section 7)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.2.1	Table 7.22	Effects due to groundborne vibration from traffic on the local road network during operation	The Scoping Report lacks information at this stage on predicted road traffic movements arising from operation of the Proposed Development. There is also no evidence to demonstrate that agreement with relevant consultation bodies has been reached. Therefore, the Inspectorate does not agree to scope out this matter from the assessment. Accordingly, the ES should include an assessment of this matter where significant effects are likely to occur.
4.2.2	Table 7.22	Effects due to vibration from operation of rotating machinery at the main development site during operation	The Inspectorate agrees that this matter may be scoped out of the assessment on the basis that due its design (eg safety requirements, efficient operation and long life of the equipment) the rotating machinery will generate only a low level of vibration and therefore significant effects are unlikely to occur.
4.2.3	Table 7.22	Effects due to vibration from operation of the substation at the main development site	The Inspectorate agrees that this matter may be scoped out on the basis that the substation would be located more than 100m from the nearest noise-sensitive property and its operation is therefore unlikely to result in significant effects.
4.2.4	Table 7.22	Effects on residential receptors at West Mersea during construction and operation	The Inspectorate does not agree that this matter may be scoped out during construction and operation. The justification provided in the Scoping Report is that the impacts on this receptor are expected to be less than at the nearest residential receptors to the west of the main development site. Consequently, if no significant adverse effects are identified at the nearest receptors the same would apply

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			<p>to West Mersea. However, the potential impacts of the Proposed Development on the nearest receptors are unknown at this stage and it cannot be assumed at this time that there would be no significant effects. In addition, there may be potential for impacts arising from the construction and operation of the marine infrastructure to the north of the main development site. Accordingly, the ES should assess these impacts where significant effects are likely to occur.</p>

ID	Ref	Other points	Inspectorate's comments
4.2.5	Figures 7.1 – 7.4	Noise study areas	<p>The figures related to the noise assessment show only the main development site and do not include the adjacent 'project-provided accommodation', which would be close to existing dwellings, or any of the other elements of the Proposed Development as described in Chapter 3 and depicted on the revised site plan. Significant effects resulting from all elements of the Proposed Development should be considered in the ES and their location depicted on plans.</p>
4.2.6	Section 7.5	Noise monitoring locations	<p>Figures 7.1 and 7.2 depict noise monitoring locations for two other developments. No plan has been provided that depicts the locations of the noise monitoring locations to be used for the assessment of the Proposed Development. It is understood that not all of the locations have yet been determined. The ES should include a plan that depicts the noise monitoring locations relevant to the Proposed Development. The Applicant should make efforts to agree the noise monitoring locations with relevant consultation bodies.</p>

ID	Ref	Other points	Inspectorate's comments
4.2.7	7.4.2	Study areas	It is not explained how the construction noise study area was determined. The basis for determining the extent of each of the study areas should be explained in the ES.
4.2.8	Table 7.5	Study areas	The ES should explain why the study areas for the freight management facilities differ during the construction and operational phases (300m and 600m, respectively).
4.2.9	Table 7.7	Baseline noise levels	Only the night-time $L_{Aeq}$ and $L_{A90}$ is presented for the monitoring location at West Mersea. If this data is to be included in the ES the daytime levels should be included or explanation provided about why they have been omitted.
4.2.10	7.5.39	Methodology - vibration measurement	It is noted that vibration measurement has not been defined at this stage for properties described as very close to roads used for construction traffic. The ES should set out the methodology used to identify buildings that could potentially be at risk.
4.2.11	7.6.14	Road traffic noise assessment	It is stated that it is considered unnecessary to undertake an assessment of the short-term (in addition to the long term) road traffic noise during operation of the power station on the basis that the night-time worst-case (short-term) assessment will be undertaken for construction-related traffic when traffic flows will be highest. It should be explained in the ES why this would be representative of the worst-case for any given stage of the Proposed Development.
4.2.12	7.6.17	Methodology – assessment criteria	In respect of operational noise from the power station and other stationary sources it is noted that it is not considered possible at this stage to define a scale for magnitude of change or for values for the purposes of identifying the lowest observed adverse effect level (LOAEL) and significant observed adverse effect level (SOAEL), and

ID	Ref	Other points	Inspectorate's comments
			that this will be considered in the appropriate detail once the baseline surveys have been completed. The ES should clearly set out the methodology used to establish the assessment criteria.
4.2.13	7.6.18	Methodology	The Scoping Report states that, subject to the outcome of further monitoring, an assessment of absolute noise levels from the power station and other stationary sources may be more appropriate than an industrial noise assessment as set out in BS 4142:2014 +A1:2019. The approach taken and the rationale for selecting the preferred assessment method should be fully justified and explained within the ES.
4.2.14	Table 7.17	Methodology	In relation to the criteria for identifying LOAELs and SOAELs (not yet defined) for operational phase noise emissions the daytime assessment period is defined as 07:00-19:00 and the night-time assessment period as 23:00-07:00. Unlike the assessment periods defined for other sources of noise the period between 19:00 and 23:00 is not captured. This should either be rectified if incorrect or the omission explained in the ES.
4.2.15	Table 17.9 & Figure 7.4	Receptors	The Inspectorate notes that it is stated in paragraph 7.7.5 that Noise Sensitive Group 9 (NSG9) (Ecological receptors within the intertidal, near shore, shoreline terrestrial areas and on Pewet Island), which is identified as being potentially subject to likely significant effects from the main development site, is not shown on Figure 7.4 (Noise Sensitive Groups) although it is not explained why. Figures and plans appended to technical chapters should accurately and consistently reflect and depict the assessment information.

ID	Ref	Other points	Inspectorate's comments
4.2.16	Section 7.8	Mitigation	<p>Limited information has been provided in relation to how the mitigation of significant noise effects will be addressed in the ES. The ES must clearly describe the potential impacts, the resulting likely significant effects, the mitigation proposed to address those effects, the predicted residual effects following the implementation of the mitigation measures, and where the mitigation is secured. The ES should cross-refer as relevant to application documents applicable to the assessments findings such as, for example, a Construction Environmental Management Plan.</p>
4.2.17	Section 7.4	Cumulative effects assessment	<p>No information is provided in this chapter in relation to a cumulative impacts assessment other than two very brief references to cumulative effects in Section 7.4. The ES must contain an assessment of potentially significant cumulative noise and vibration effects arising from all the elements of the Proposed Development, provided either within the noise chapter or in a discrete chapter that addresses the relevant aspects assessed in the ES.</p>
4.2.18	Appendix 7A, Section 3	Baseline data - noise surveys	<p>In respect of ecological receptors, reference is made to the undertaking of future noise surveys only in relation to Special Protection Areas. All sensitive ecological receptors which could potentially experience a significant effect resulting from the Proposed Development should be identified and noise surveys undertaken accordingly and reported in the ES.</p>

## 4.3 Air Quality

(Scoping Report Section 8)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.3.1	8.7.8	Potential impacts of the Project on the marine and intertidal ecological receptors in terms of eutrophication and ocean acidification	The Inspectorate notes that changing land use will be of relevance to the assessment of eutrophication and acidification impacts. However, the Inspectorate considers that sufficient information relevant to support the judgement to scope this matter out, including a full mass balance of losses to water and air, has not been provided. The Applicant is referred to comments from Natural England in this regard. The ES should assess impacts to marine and intertidal ecological receptors from eutrophication and acidification where significant effects are likely. The Applicant should make effort to agree the approach with relevant consultation bodies, including Natural England.
4.3.2	8.7.8	Potential impacts on human receptors at West Mersea and Tollesbury	The Inspectorate does not agree that this matter may be scoped out of assessment. The potential impacts of the Proposed Development on the nearest receptors are unknown at this stage and it cannot be assumed at this time that there would be no significant effects. In addition, there may be potential for impacts arising from the construction and operation of the marine infrastructure to the north of the main development site and marine vessel movements. Accordingly, the ES should include an assessment of effects on these receptors where significant effects are likely to occur.
4.3.3	8.7.8	Emissions from small combustion plant that aggregates to a thermal input less than 3MW net	While the Inspectorate agrees that emissions from a plant that aggregates to a thermal input of less than 3MW net rated thermal input at any one time is unlikely to have significant effects on receptors, the Inspectorate cannot agree to scope this matter out of

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
		rated thermal input at any one time	assessment until further information has been provided to inform this judgement. The ES should therefore include further detail regarding the location, size and quantity of combustion plant sources. The Applicant should also make effort to agree the exclusion of any assessment of combustion plant with relevant consultation bodies.
4.3.4	8.7.8	Marine traffic emissions during the operational phase	<p>Although the number of vessel movements during the operation of the Proposed Development have not been provided within the Scoping Report, the Inspectorate agrees in principle that marine traffic emissions during the operational phase are unlikely to result in significant effects to air quality and that this matter can be scoped out.</p> <p>However, the Applicant should include within the ES the number of vessel movements predicted during the operation and confirm that they are below the criteria for which an assessment would be required.</p>

ID	Ref	Other points	Inspectorate's comments
4.3.5	Section 8.4	Study area - general	<p>The Inspectorate agrees in principle to the study areas set out in the Scoping Report but notes that the study areas should be confirmed once the locations and emission sources of the main development site, off-site development sites, road transport routes, marine vessel transport routes and the marine infrastructure zone are confirmed.</p> <p>The Applicant should ensure that the study area applied in the assessment is sufficient to address the extent of the likely</p>

ID	Ref	Other points	Inspectorate's comments
			significant effects and takes into consideration all receptors likely to be affected. The Applicant should make effort to agree the study areas with the relevant consultation bodies.
4.3.6	8.4.15	Study area – road traffic	The ES should clearly define and explain the chosen study area for the assessment of air quality effects associated with road traffic. The ES should explain the criteria used in considering construction and operation traffic, with cross-reference to the Transport Assessment (TA). The worst-case scenario used in the assessment should be clearly identified. The Applicant should also make effort to agree the study area with relevant consultation bodies.
4.3.7	8.4.5	Ecological Sites	<p>The Inspectorate considers that the site lies within a sensitive area for changes in air quality, which includes Essex Estuaries Special Area of Conservation (SAC) and Dengie Site of Special Scientific Interest (SSSI), Ramsar Site and Special Protection Area (SPA). The impacts on designated sites and sensitive ecological receptors within the zone of influence should be assessed. The assessment of air quality in the ES should cross-refer to the biodiversity and marine ecology aspect chapters and any report made with respect to the Habitats Regulations.</p> <p>Paragraph 8.4.5 states that the study area for SPAs, SACs and Ramsar, will extend up to 10km from the point source emissions, and up to 2km for SSSIs and all other biodiversity sites. The Scoping report also states that Ecological sites located within 500m of the transportation routes will be also considered. The Applicant should make effort to agree the study area with the relevant consultation bodies.</p> <p>The Inspectorate advises that consideration should be given to the Blackwater, Crouch, Roach and Colne Marine Conservation Zone (MCZ), given that both native oysters and intertidal mudflats are</p>



ID	Ref	Other points	Inspectorate's comments
			<p>present and sensitive to nitrogen oxide emissions and nutrient nitrogen and acid deposition.</p> <p>The Applicant states that the study area would extend 10km from the point source emissions, the Inspectorate is of the opinion that this study area should also extend 10km from the non-road mobile machinery (NRMM) and marine vessel emissions. The Applicant should make effort to agree the study area with the relevant consultation bodies.</p>
4.3.8	8.5.1	AQMA's - road traffic	<p>The ES should consider how traffic and transport due to construction and operation of the Proposed Development would contribute to air quality levels in the relevant AQMA's identified in the Scoping Report. Effort should be made to agree the extent of the study area with relevant consultation bodies and should be justified within the ES.</p>
4.3.9	8.6.58	Receptors – road traffic	<p>The Scoping Report does not provide a figure of human receptor locations for the assessment of road traffic emissions. Paragraph 8.6.58 of the Scoping Report states that for road transport sources, individual receptors along a transect, or along a series of transects at suitable intervals, perpendicular to the road up to 200m will be used. It is unclear if this is related to human or ecological receptors. Effort should be made to agree relevant receptors for the assessment with relevant consultation bodies. Where appropriate and to address uncertainty a worst-case exposure to emissions from the Proposed Development should be assumed to inform the assessment.</p>
4.3.10	8.1.6	Monitoring	<p>The Inspectorate welcomes the provision of monitoring to allow the collection of data for the characterisation of the baseline environment which will inform the air quality assessment. The</p>

ID	Ref	Other points	Inspectorate's comments
			Applicant should make effort to agree the monitoring scheme and locations with the relevant consultation bodies.
4.3.11	8.6.36	Point source emissions - scenarios	The Inspectorate recognises that the scenarios listed within the Scoping Report are not the final set of scenarios which will be used in the assessment. The final set of scenarios should represent the worst-case scenarios anticipated relevant to the uncertainty and flexibility sought. The Applicant should make effort to agree the final modelling scenarios with the relevant consultation bodies.
4.3.12	8.6.45	Combined impact of point source and road traffic emissions	<p>The Inspectorates agrees with the methodology outlined for assessing the combined impact of point source and road traffic emissions during construction and operation. However, it is not clear whether emissions from NRMM and marine vessels will also be included when assessing the combined impacts. The ES should include NRMM and marine vessels within any assessment of combined impacts.</p> <p>The Inspectorate welcomes the proposal in the Scoping Report to develop a detailed modelling methodology statement for agreement with key stakeholders prior to the commencement of modelling work.</p>
4.3.13	N/A	Relationship between air quality assessment and TA	The air quality assessment should be informed by the TA particularly with regards to defining the study area and the potential impact from vehicle movements during both construction and operation.
4.3.14	N/A	Mitigation	The Applicant should seek to agree mitigation measures and monitoring with relevant consultation bodies. Measures provided to mitigate impacts predicted through the assessment process should be clearly stated in the ES and secured in the draft DCO or other legally binding mechanism, as appropriate. The Inspectorate would

ID	Ref	Other points	Inspectorate's comments
			expect an Air Quality Management Plan to form part of the Code of Construction Practice (CoCP).
4.3.15	Table 8.2 and Table 8.10	NO <sub>x</sub> Air Quality Standard (AQS)/Environmental Assessment Level (EAL) at ecological sites	The Scoping Report presents two assessment criteria for daily mean NO <sub>x</sub> concentrations at ecological sites in Tables 8.2 and 8.10. The Inspectorate is of the opinion that the higher threshold of 200 µgm <sup>3</sup> can only be applied if robust evidence is provided to demonstrate that both SO <sub>2</sub> and O <sub>3</sub> concentrations are below their own respective thresholds at the relevant ecological sites.

## 4.4 Radiological

(Scoping Report Section 9)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.4.1	9.6.29	Effects from activities at any of the off-site associated development and off-site power station facilities locations.	<p>The Inspectorate agrees that this matter may be scoped out in relation to the freight management and park and ride facilities on the basis that no radioactive disposal will take place at these locations and they are unlikely to be affected by existing radiological contamination as a result of their distance from the Bradwell A power station.</p> <p>However, the Inspectorate does not agree that this matter be scoped out in relation to any of the other off-site associated development, which would be closer/adjacent to Bradwell A; or the off-site power station facilities, the locations of which are currently unknown. Accordingly, the ES should include an assessment of this matter where significant effects are likely to occur.</p>
4.4.2	9.6.30	Accident events.	<p>The Inspectorate agrees that this matter may be scoped out from this ES 'Radiological' chapter on the basis that such matters will be addressed in the 'Major Accidents and Disasters' ES chapter.</p>
4.4.3	9.6.31	The management of radioactive waste and spent fuel.	<p>The Inspectorate considers that the justification that this matter will be subject to assessment and regulatory approval by the Environment Agency and the Office for Nuclear Regulation through the environmental permit applications and the Nuclear Site Licence application is insufficient and as no further justification is provided it is not agreed that this matter may be scoped out. Accordingly, the ES should include an assessment of this matter where significant effects are likely to occur.</p>

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.4.4	9.6.32	Radiological effects related to the decommissioning of the power station at the end of its operational life.	As outlined in Paragraphs 2.2.11 and 2.2.12 of this Opinion, the Inspectorate does not agree to scope out effects associated with the decommissioning phase of the Proposed Development.

ID	Ref	Other points	Inspectorate's comments
4.4.5	9.1.9 - 9.1.10	Assessment	Paragraph 9.1.19 explains that radiological assessment results for the reactor are compared to a single source dose constraint of 0.3 millisievert per year (mSv/y) and a threshold for optimisation of 20µSv/y, and that if exposures are calculated to be below the optimisation threshold the regulators should not seek to secure further reductions in discharge limits provided there is satisfactory evidence that the operator is using the best practicable means to limit discharges. Paragraph 9.1.10 states that the radiological assessment has identified that the total dose is 24.5µSv/y, which is over the optimisation threshold. It should be clearly explained in the ES whether further assessment or actions were/are required as a result of the threshold exceedance.
4.4.6	9.1.15, Table 9.2 & other paras	Legislation	Reference is made to the 1994 Habitats Regulations, which have been superseded by The Conservation of Habitats and Species Regulations 2017 and The Environmental Permitting (England and Wales) Regulations 2010, which have been superseded by The Environmental Permitting (England and Wales) Regulations 2016. Care must be taken to ensure that the assessments reported in the ES have regard to and accord with the extant legislation in place at

ID	Ref	Other points	Inspectorate's comments
			the time that the assessments are undertaken, and that references in the ES are accurate.
4.4.7	9.3.1	Consultation	It is noted that there has been no consultation to date in respect of the scope of and methodology that will be applied to the radiological assessment. The Inspectorate recommends early engagement with relevant consultation bodies and that effort is made to agree the scope and methodology, evidence of which should be included in the ES.
4.4.8	9.4.1 and other paras	Study area	It is noted that the study area for the radiological assessment has yet to be defined and that it will focus on the 'locality' of the main development site, which is not defined. The study area must be sufficiently broad to encompass all sensitive receptors that could experience significant effects from the Proposed Development. It would aid understanding if it was depicted on a figure in the ES.
4.4.9	Table 9.4 & para 9.5.1	Baseline data	It is noted that only one desk-based source of baseline data (Radioactivity in Food and the Environment (RIFE) Report 24, 2018 and Appendix 1 CD Supplement) is identified to inform the radiological baseline and that it is considered sufficient to broadly characterise the baseline around the main development site. No information is provided on the extent of the area covered by the RIFE Report. This should be made explicit in the ES and the baseline data used to inform the assessment should be contained in or appended to the ES.
4.4.10	9.5.16	Baseline	The Scoping Report suggests that it is not considered necessary for radiochemical characterisation of soil, surface water and groundwater conditions for the off-site associated development locations as these are anticipated to be at sufficient distance from the Bradwell A power station to not have been influenced by

ID	Ref	Other points	Inspectorate's comments
			<p>historical radioactive discharges from it. However, the location of the off-site associated development has not yet been finalised and it is indicated in the Scoping Report that some elements would be close/adjacent to the main development site, near to Bradwell A. Where there may be potential for significant effects baseline characterisation should be undertaken. This approach should be agreed with relevant consultation bodies and any agreement evidenced in the ES.</p>
4.4.11	9.6.2 and 9.6.3	Methodology	<p>Cross-reference is made to guidance documents which contain methods of assessment which will be applied to the assessment of construction impacts of the Proposed Development. No information is provided regarding what these methods are comprised. The selection of the methodology used for the assessment should be clearly justified and the methods should be fully set out in the application ES.</p>
4.4.12	9.6.17 – 9.6.18 & 9.6.25	Modelling	<p>Reference is made to various modelling tools that will be used for the assessment of effects on people, flora and fauna. Details of each of these models should be provided in the ES.</p>
4.4.13	9.7.1	Mitigation	<p>Limited information is provided on potential mitigation measures. It should be made clear within the ES what mitigation has been relied on in the assessment and how it is secured. It should also clearly present the residual effects following the implementation of the proposed mitigation.</p>

## 4.5 Socioeconomics

(Scoping Report Section 10)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.5.1	Plate 10.1	Human health, Community Impact Report and Equality Statement	The Applicant has stated that human health, the Community Impact Report and Equality Assessment are outside the scope of the socioeconomic assessment but relevant to it are 'other EIA workstreams', e.g. transport, recreation and amenity, air quality, noise and landscape. Human health has been scoped in and assessed in Scoping Report Section 11. The Inspectorate agrees that human health, the Community Impact Report and Equality Assessment should be considered in other relevant chapters of the ES.

ID	Ref	Other points	Inspectorate's comments
4.5.2	Plate 10.1	Assessment scope	Plate 10.1 shows an outline scope of the assessment, including an indication of the interdependencies between the socio-economic workstream and other relevant aspects. The Inspectorate expects the scope of the assessment to be clearly summarised and cross-referenced in the ES.
4.5.3	Table 10.1	Socio-economic parameters: Gravity Model	The Applicant states that an initial Gravity Model will estimate where workers on the Project will live during the construction phase (further detail is set out in Table 10.1). The model will show travel distances and potential locations of the workforce working on the construction phase of the Project. The Gravity Model should be



ID	Ref	Other points	Inspectorate's comments
			clearly referenced in the ES and cross-referenced to the relevant ES aspect chapters.
4.5.4	10.1.14 Table 10.1	Baseline and assessment approach	<p>Chapter 5 of "Jobs and People" of the Stage One Consultation Document for the Project Bradwell B (2020) is referenced for the approach that has been taken by the Applicant in establishing the initial work on workforce profile, the approach to the assessment of socio-economic effects, and a high-level strategic approach to mitigation to maximise the socio-economic benefits and minimise adverse effects of the project. Chapter 5 of the document draws on evidence of actual impacts from Hinkley Point C to quantify the scale of potential economic benefits achieved by other Nuclear New Build projects.</p> <p>The Applicant should incorporate this work as part of the ES to justify the baseline developed for the assessment, describing the approach adopted for the assessment and any mitigation measures.</p>
4.5.5	Table 10.2	Relevant Legislation and Policy	The Applicant should include reference to the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 as part of the relevant legislation.
4.5.6	Table 10.3	Methodology	<p>The overarching methodology for determining significance is set out in Chapter 5: The EIA Process and Methods and methodology specific to the socio-economic assessment is presented at Section 10.6.</p> <p>The methodology for determining significance is not set out at this scoping stage but will be established through engagement with stakeholders and the Working Group process, in the context of local baseline conditions.</p>

ID	Ref	Other points	Inspectorate's comments
			The methodology for determining significance should be clearly set out in the ES.
4.5.7	10.3.4	Consultation	The Applicant should clearly demonstrate how the identification of the baseline, sensitive receptors, the assessment of likely effects and any mitigation has been influenced through ongoing consultation with relevant consultation bodies.
4.5.8	10.4 Figure 10.1	Study area	The Applicant should ensure that the final study area extent for the assessment is clearly defined and justified in the ES. The ES should demonstrate that both the temporary and permanent land used for the Proposed Development are clearly identified as part of the study area and have been considered for the assessment of effects.
4.5.9	10.6.18	Determination of significance	<p>The Applicant states that some socio-economic impacts cannot be quantitatively assessed; in such cases a qualitative assessment will be used.</p> <p>The Applicant should explain clearly how effects have been assessed in the ES and the professional qualifications of those who have made this assessment of significant effects.</p>
4.5.10	10.8	Mitigation	Any proposed mitigation and monitoring measures and the means to secure these measures through the DCO or supporting documents should be clearly set out in the ES.

## 4.6 Human Health

(Scoping Report Section 11)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.6.1	Table 11.9	Human Health effects relating to: radiological effects; climate change effects; major accidents and disasters; soils, geology and land use; the water environment; and flood risk.	<p>The Inspectorate agrees that the human health effects of radiological effects will be implicit to the assessment of radiological effects (Chapter 9 of the Scoping Report) which will set out measures to avoid health impacts.</p> <p>The Scoping Report also proposes that no additional assessment of effects on human health with respect to climate change, major accidents and disasters, soils, geology and land use, water environment and flood risk would be required as these assessments are considered within Chapters 12, 13, 14, 15, and 16 of the Scoping Report, respectively.</p> <p>The Inspectorate agrees with this approach and advises that human health effects relating to these aspects should be clearly cross-referenced between Chapter 11 (Human Health) and the relevant assessments of the ES.</p>

ID	Ref	Other points	Inspectorate's comments
4.6.2	11.1.4- 11.1.5 11.1.16 11.6	Multi-disciplinary assessment of human health effects	The Scoping Report states that the assessments made by other aspect chapters would be considered to determine if these chapters are sufficient, or whether further assessment of effects on human health is required. Section 11.6 details the approach to how these chapters are scoped into or out of the human health assessment.

ID	Ref	Other points	Inspectorate's comments
			<p>The Applicant should state which assessments for other technical aspects have been used to determine the significance of effects on human health and clearly refer to the supporting data where necessary in the ES.</p>
4.6.3	11.1.11 Plate 11.1	Health determinants and pathways	<p>The Scoping Report states that the assessment would be based on both 'social' and 'ecological' (environmental) determinants of health, affected through relevant health pathways.</p> <p>The Applicant should clearly state in the ES what these determinants are, how they have been identified, and set out the relevant health pathways used for the assessment.</p>
4.6.4	11.3	Consultation and stakeholder involvement	<p>The Inspectorate welcomes the Applicant's engagement with relevant local authorities in the Human Health Working Group. Any stakeholder involvement with health and wellbeing boards, Clinical Commissioning Groups and health trusts and other relevant consultation bodies, would also be considered useful as part of this consultation process.</p> <p>The ES should clearly set out which specific stakeholders the Applicant has engaged with, and the outcome of such engagement in determining the assessment and any mitigation.</p>
4.6.5	Table 11.3	Mitigation	<p>Design and mitigation measures relevant to human health will be shared and developed through the assessment process in discussion with the Health Working Group. Any mitigation measures that are considered necessary should be clearly set out in the ES and how these are to be secured.</p>
4.6.6	11.4	Assessment years	<p>The ES should thoroughly justify the approach taken to assessment of particular years during construction work and ensure that, where</p>

ID	Ref	Other points	Inspectorate's comments
			uncertainty exists and flexibility is sought, a worst-case scenario has been assessed.
4.6.7	11.4.7	Human health assessment study areas	<p>The Applicant should ensure that the extent of the final study areas for the assessment are clearly defined and justified in the ES.</p> <p>The ES should demonstrate that both the temporary and permanent land used for the Proposed Development are clearly identified as part of the study area(s) and have been considered for the assessment of effects.</p> <p>This should include a clear cross-reference to the relevant sections of other aspect chapters and, where relevant, the supporting plans in order to assist the reader.</p>
4.6.8	11.4 11.5	Baseline	The ES should clearly set out all studies and surveys undertaken to inform the final baseline information. The Applicant should seek to agree its approach with the relevant consultation bodies.
4.6.9	11.5 11.6	Receptors	The ES should contain an in-depth explanation of the approach to identifying the receptors forming part of the assessment, including justification for the scoping out of any receptors, taking into account the various study areas applicable to the assessment of health impacts. Where this information is set out in another ES chapter, the Applicant should ensure there is adequate cross-referencing and signposting to aid the reader.
4.6.10	11.6	Likely significant health effects	The ES should include an assessment of potential impacts that future changes in the health and community infrastructure may have, and the potential adverse effects on the provision and cost to the health service due to impacts on travel times for emergency ambulances and other services from the Proposed Development.

ID	Ref	Other points	Inspectorate's comments
4.6.11	11.7.6	Qualitative and quantitative assessment	The Applicant states that some socio-economic impacts cannot be quantitatively assessed; in such cases a qualitative assessment will be used.

## 4.7 Climate Change

(Scoping Report Section 12)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.7.1	12.4.2	Greenhouse Gas (GHG) emissions associated with the decommissioning of the Proposed Development	As outlined in Paragraphs 2.2.11 and 2.2.12 of this Opinion, the Inspectorate does not agree to scope out effects associated with the decommissioning phase of the Proposed Development.
4.7.2	12.6.6	GHG assessment – emission sources that are >1%	The Inspectorate agrees that emission sources of >1% can be excluded from the GHG assessment as this approach is in accordance with guidance PAS 2050:2011.
4.7.3	12.6.7	GHG emissions associated with land use change	The Scoping Report states that GHG emissions associated with land use change resulting from the Proposed Development are expected to be minimal. The ES should assess emissions associated with the change in land, where significant effects could occur.

ID	Ref	Other points	Inspectorate's comments
4.7.4	12.10	Uncertainties with predicted GHG emissions and worst-case scenario	The Scoping Report identifies that there is uncertainty when estimating GHG emissions and climate change impacts associated with the Proposed Development. The ES should address the uncertainty using a worst-case scenario to ensure that uncertainty and inaccuracy does not undermine the assessment findings. Effort should be made to agree the approach with the relevant consultation bodies.

ID	Ref	Other points	Inspectorate's comments
4.7.5	N/A	Ecological receptors	The Climate Change Chapter of the ES should include an assessment of the impact of climate change on ecological receptors impacted by the Proposed Development, where significant effects are likely to occur.
4.7.6	12.7.18	Potential hazards	The Inspectorate agrees that the hazards identified in the Appraisal of Sustainability (AoS) should be assessed as a minimum. The ES should include all hazards in the climate change assessment where significant effects are likely to occur.
4.7.7	12.9.1	Potential mitigation	The Scoping Report states that mitigation would be developed throughout the design process to ensure that GHG emissions are minimised wherever practicable and that the design is resilient to future climate. The Applicant should make effort to agree mitigation measures with relevant consultation bodies. Measures should be clearly stated in the ES and appropriately secured.



## 4.8 Major Accidents and Disasters

(Scoping Report Section 13)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.8.1	Table 13.15	Effects on workers during construction and operation arising from workplace accidents where effects are restricted to only 1-2 workers involved in the immediate task.	The Inspectorate agrees that this matter may be scoped out on the basis of the scale of such accidents and that the operator would have to comply with relevant legislation such as the Health and Safety at Work Act and associated regulations.
4.8.2	Table 13.15	Effects on pedestrians and road traffic users from road traffic accidents during construction and operation where effects are restricted to 1-2 people.	The Inspectorate agrees that this matter may be scoped out from the Major Accidents and Disasters chapter in the application ES on the basis that accidents of such scale will be assessed in the ES Transport chapter.

ID	Ref	Other points	Inspectorate's comments
4.8.3	13.4.5	Study area	The maximum extent of the proposed initial study area extending from the main development site is unclear. It is stated in the text to be 30km, consistent with the outline (emergency) planning zone (OPZ) for operating nuclear power plants defined in The Radiation (Emergency Preparedness and Public Information) Regulations 2019. However, the maximum extent set out in Table 13.4, depicted on Figure 13.1 and referenced throughout the chapter is 20km. Although it is explained that the OPZ will be under review as the project develops and is expected to reduce significantly and that the

ID	Ref	Other points	Inspectorate's comments
			<p>study area will be reduced accordingly, no explanation is provided about why the study area currently being applied differs to that stated. The methodology used to define the study areas must be fully explained in the ES and evidence of any agreement of the proposed approach from relevant consultation bodies should be provided.</p>
4.8.4	13.4.6	Study area	<p>It is noted that the proposed study area for major accidents arising from external sites holding hazardous materials, licensed explosives sites and Major Accident Control Regulations sites is 1km from the main development site boundary, although HSE's Safety Report Assessment Manual suggests 10km. It is explained that 1km is considered sufficient when the nature of major accidents that could affect receptors related to the Proposed Development is taken into account. This should be fully explained in the ES and information provided on the types of major accidents envisaged that formed the basis for this conclusion. Evidence of any agreement reached with the with relevant consultation bodies should be included in the ES.</p>
4.8.5	Various locations	Inter-relationships between assessments	<p>It is noted that this chapter contains a number of references to other aspect chapters relevant to this aspect. Cross-references within the ES to relevant information contained in other aspects must be specific and explicit so that the potential effects of the Proposed Development can be fully understood.</p>
4.8.6	Figures 13.1 & 13.2	Study area and receptors	<p>It is understood that receptors relevant to this aspect have not yet been identified and so are not shown on the associated figures for this aspect chapter. They should be depicted on the equivalent figures contained in the application ES.</p>

ID	Ref	Other points	Inspectorate's comments
4.8.7	13.8.1	Mitigation	It is noted that some mitigation measures relevant to this aspect will be contained outwith the ES such as, for example, within a CoCP. The aspect chapter should contain specific references to the location of any information on related mitigation measures and identify how and where such measures are secured.
4.8.8	13.8.1	Monitoring	Details of the system proposed to monitor the effectiveness of the implemented mitigation measures should be included in the ES.

## 4.9 Soils, Geology and Land Use

(Scoping Report Section 14)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.9.1	Table 14.16	Effects on geologically important sites	<p>The Inspectorate agrees that this matter may be scoped out of the ES on the basis that there are currently no known geological designations within the study area and that the features of geomorphological importance in the Dengie SSSI will be addressed in the Coastal Geomorphology and Hydrodynamics chapter of the ES.</p> <p>However, it is noted that Section 14.5 states that currently no local geodiversity sites (LoGS) have been notified for the Maldon District as the notification process is still underway. Should any geological features, such as LoGS, be subsequently designated/notified prior to the completion of the assessment the potential for significant effects on such features should be considered in the assessment accordingly.</p>
4.9.2	Table 14.16	Effects on construction workers from exposure to contaminated land	<p>The Inspectorate does not agree that this matter may be scoped out according to the justification that significant adverse effects on construction workers during construction would be avoided as a result of the requirement for the operator to comply with the relevant health and safety legislation. As the application site is located in an area where there is potential for historic land contamination from the existing power station an assessment of this matter should be provided in the ES.</p>

<b>ID</b>	<b>Ref</b>	<b>Applicant's proposed matters to scope out</b>	<b>Inspectorate's comments</b>
4.9.3	Table 14.16	Effects on groundwater quality in the Principal Aquifer in the Thanet Sand and Chalk	The Inspectorate cannot agree that this matter may be scoped out as there is no other reference to the 'Thanet Sand and Chalk' in the Scoping Report so it is unclear to what this refers. Accordingly, the ES should include an assessment of this matter where significant effects on aquifers are likely to occur.
4.9.4	Table 14.16	Permanent or temporary loss of or damage to non-Best and Most Versatile (BMV) agricultural land.	The Inspectorate agrees that this matter may be scoped out the basis that non-BMV agricultural land is of a lower quality than BMV land and a less sensitive receptor, and that therefore potential effects on it are unlikely to be significant.
4.9.5	Table 14.16	Effects on soil quality and subsequent impact on groundwater quality from pesticides.	The Inspectorate agrees that this matter may be scoped out the basis that the Proposed Development would not involve the use of pesticides and that therefore no change in the baseline is anticipated as a result of its construction or operation. However, the Inspectorate welcomes that should the Water Framework Directive assessment indicate the presence of pesticides at elevated levels the presence of pesticides in soils and associated impacts will be considered within the scope of the soils, geology and land use assessments.

<b>ID</b>	<b>Ref</b>	<b>Other points</b>	<b>Inspectorate's comments</b>
4.9.6	Table 14.1	Legislation and policy	The Applicant's attention is drawn to the policy documents and guidance referenced in the EA's scoping consultation response. The Inspectorate agrees that these are relevant and that they should inform the soils, geology and land use assessment.

ID	Ref	Other points	Inspectorate's comments
4.9.7	14.5.6	Inter-relationships between assessments	It is noted that percussive drilling for exploratory boreholes and machine excavation for trial pits will be undertaken. Any implications of these intrusive ground investigations for receptors relevant to other aspects assessed in the ES such as, for example, biodiversity, should be assessed where significant effects are likely.
4.9.8	Section 14.4	Study areas	It is not indicated whether the proposed study areas were discussed with relevant consultation bodies. Efforts should be made to agree the scope and extent of study areas with consultation bodies where possible. The rationale for selecting the extent of the study areas should be explained in the ES.
4.9.9	14.5.20	Receptors	The Essex Estuaries SAC is incorrectly identified as a SPA in the provided list of statutory designated sites within or on the boundary of the main development site. Care should be taken to ensure that receptors are correctly and consistently identified throughout the ES to avoid potential for confusion.
4.9.10	Section 14.8	Mitigation	Information is provided only in relation to embedded mitigation; no reference is made to potential additional mitigation. Should the assessment identify potential significant effects on any receptors following the implementation of the embedded mitigation, suitable additional mitigation measures should be proposed and described or justification provided in the ES of why it would not be possible/appropriate to provide mitigation. Any predicted residual effects following the implementation of mitigation should be described.
4.9.11	14.8.2 & 14.8.4	Mitigation	Reference is made to the provision of information on related mitigation that would be contained in other application documents, ie a CoCP and a CEMP. Explicit cross-reference should be made from

ID	Ref	Other points	Inspectorate's comments
			<p>the ES to the location of information on related mitigation measures.</p>
4.9.12	Appendix 14A: para 1.2.1, Figures 1.2, 2.1b & 2.1e	Survey areas	<p>The proposed desk study survey area, depicted on Figure 1.2 of the Appendix, is described as encompassing the land within the indicative main development site boundary, the potential temporary worker accommodation site boundary, the potential temporary worker accommodation expansion area site boundary and a 500m buffer. However, neither Figure 1.2 nor any of the other figures contained in the Appendix include the potential temporary worker accommodation on the southern boundary of the main development site as shown on the revised site plan. It is therefore unclear whether the proposed desk study will also encompass that area.</p> <p>In addition, although the location of proposed exploratory boreholes and trial pits are depicted within the areas identified for the potential temporary worker accommodation to the west and north-west of main development site on Figures 2.1b and 2.1e, none are shown in the location of the potential worker accommodation to the south (which is not included on these figures).</p> <p>The survey areas should encompass all the elements of the Proposed Development to ensure that all affected receptors and potentially significant effects are captured in the assessment. The Proposed Development should be consistently depicted on all of the figures and plans contained in the ES.</p>
4.9.13	Appendix 14A, para 2.5.6	Baseline data	<p>In relation to the Agricultural Land Classification surveys it is stated that the extent of the baseline field surveys will be dependent on the availability of site access to undertake the surveys, however the approach that will be taken in the event that it is not possible to survey particular areas is not explained. Where uncertainty exists or</p>

ID	Ref	Other points	Inspectorate's comments
			where flexibility is sought a worst-case assessment scenario should be applied.



## 4.10 Water Environment

(Scoping Report Section 15)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.10.1	15.1.2	n/a	<p>Paragraph 15.1.2 states that the aspect chapter will contain the effects that are proposed to be scoped out of the assessment. However, the Inspectorate notes that there is no section within the chapter that identifies or describes the effects that have been scoped out.</p> <p>The reasoning and evidence for scoping out any effects should be included in the ES.</p>

ID	Ref	Other points	Inspectorate's comments
4.10.2	Table 15.5 Figure 15.1 15.4.5	Baseline and agreement of Zone of Influence and study area(s)	<p>The Scoping Report states that the site boundaries and search areas are yet to be defined for the off-site development including; accommodation, off-site power station facilities and a potential off-site borrow pit. It is stated that for these components of the Proposed Development, details of the baseline will be provided following further design refinement and consultation.</p> <p>The ES and accompanying Water Environment Survey and Monitoring Plan must include full and updated baseline information (existing and future) relevant to each specific off-site element of the Proposed Development and report clearly on any changes to the scope of assessment and / or design of the Proposed Development that may have occurred since the time of scoping. The off-site</p>

ID	Ref	Other points	Inspectorate's comments
			development and their respective study areas should be depicted on an accompanying figure in the ES.
4.10.3	3.4.30	Borrow pit(s)	<p>In addition to the proposed off-site borrow pit, the Scoping Report states that there may be a need to develop borrow pits within the main development site "in order to source construction materials and help balance the earthworks" and states that "any such borrow pits would be backfilled with arisings which are unsuitable for re-use as a construction material and would be restored".</p> <p>The ES should include information relating to the location and extent (including anticipated depths) and timetabling of the proposed borrow pits in relation to all elements of the Proposed Development. The ES should also provide further information regarding the materials intended for use to backfill borrow pits. Where significant effects are likely to occur, the ES should assess the risk to designated sites from acidic leachate and other substances as a result of backfilling any borrow pits with unsuitable materials.</p>
4.10.4	Table 15.27	Ground investigations – drawdown effects	<p>The Scoping Report states that a number of boreholes will be required as part of the proposed ground investigations for the main development site. The Inspectorate notes that off-site associated development ground investigation is yet to be confirmed.</p> <p>The ES should include information relating to the design, location and extent (including anticipated depths) and timetabling of the proposed boreholes in relation to all elements of the Proposed Development. Where significant effects are likely to occur, the ES should assess the risk, and associated impacts, of drawdown effects associated with the drilling of boreholes and other excavations, including the potential for prolonged drawdown of site water levels</p>

ID	Ref	Other points	Inspectorate's comments
			<p>which may impact designated sites and associated wetland, saltmarsh and intertidal mudflat habitat.</p>
4.10.5	Table 15.3 Table 15.32	Dewatering activities	<p>Table 15.3 (outlining technical engagement) states that dewatering activities will be required on the main development site only. However, Table 15.32, which details the likely significant water environment effects, states that groundwater dewatering will be required.</p> <p>The ES should clearly describe where dewatering activities will take place and assess any likely significant effects. Information relating to dewatering design / techniques and timetabling should also be included within the ES.</p>
4.10.6	Table 15.4	Works affecting existing watercourses and drainage ditches	<p>At Stage One consultation (Table 15.4), it appears that the following activities were discussed between the Applicant and the EA and NE; watercourse realignment/ re-routing, installation of watercourse crossings (including bridges and culverts), and the backfilling of parts of the onsite drainage ditch network.</p> <p>The Inspectorate notes that there is limited information, or in some cases, no information, relating to these activities included within the Scoping Report. The ES should clarify if such activities will be required as part of the Proposed Development and, if so, full detail (including location, extent, design and any anticipated likely significant effects) should be presented in the relevant assessments of the ES. The ES should describe any in-stream (eg culvert) structures and include sufficient design detail informing a meaningful assessment of likely significant effects on watercourse hydraulics and ecology.</p>

ID	Ref	Other points	Inspectorate's comments
			<p>The ES should demonstrate the effort made to sensitively locate / design (including all permanent and temporary land-take) in order to avoid direct and indirect impacts on species and habitats.</p> <p>Any avoidance or mitigation measures proposed should be described in the ES and details provided to explain how such measures will be secured.</p>
4.10.7	n/a	Invasive non-native species (INNS)	<p>The ES should assess the potential for construction and operational activities within proximity of watercourses and / or drainage ditches, as well as thermal discharges into the estuary to facilitate the spread of INNS.</p> <p>The ES should describe any necessary mitigation and / or biosecurity precautions required to prevent the spread of INNS. Any measures relied upon in the ES should be discussed with relevant consultation bodies, including NE and the EA, in effort to agree the approach. Measures relied upon in the ES should be adequately secured eg through a Construction Environmental Management Plan (CEMP).</p>
4.10.8	n/a	Protected and sensitive species	<p>The ES should fully assess the suitability of any impacted freshwater habitats for protected and sensitive species, including white-clawed crayfish, which the Inspectorate notes is not a species that has been addressed within the Scoping Report.</p> <p>The ES should assess the likely significant effects on protected and sensitive species, including the spread of disease and / or harmful invasive non-native species (INNS), such as Signal crayfish and other invasive crustaceans and molluscs.</p> <p>The ES should consider how the Proposed Development may be designed as to avoid impacts to freshwater habitats and species, eg retaining as many watercourses as possible. Where impacts to</p>

ID	Ref	Other points	Inspectorate's comments
			freshwater habitats cannot be avoided, the ES should outline any measures proposed to minimise impacts, such as the provision of green buffers, onsite ecological management, eg fish rescue and species translocation (eg water vole and European eel).

## 4.11 Flood Risk and Drainage

(Scoping Report Section 16)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.11.1	Paragraph 16.8.3	Receptors: Areas of Bradwell-on-Sea >100m distance from the Proposed Development red line boundary and Waterside Road (B1021)	<p>Areas of Bradwell-on-Sea over 100m distance from the main development site (defined in Figure 16.1) and Waterside Road (B1021) are proposed to be scoped out of assessment as they are located at a higher elevation than the main development site and outside of the coastal flood zone.</p> <p>The elevations of the flood waters and the receptors are not defined and as flood modelling has not yet been undertaken and flood scenarios post-development (accounting for climate change projections) are currently unknown, the Inspectorate cannot agree to scope out these receptors without further justification.</p> <p>The assessment should be informed by modelling, flood scenarios and projections to determine which receptors have potential to be impacted by flooding as a result of the Proposed Development during the construction and operational phases.</p>
4.11.2	Table 16.11, paragraphs 16.8.1, 16.8.4 and 3.4.1, Figures 3.4 and 16.1	Receptors during operation (ecological, heritage, industrial, agricultural land, marina, commercial)	<p>Scoping Report paragraph 16.8.4 states that since major earthworks will have been completed and land outwith the 'Power Station Permanent Development Area' will have been restored to its original use, 'some' receptors have been scoped out of assessment during the operational phase of the Proposed Development.</p> <p>The 'Power Station Permanent Development Area' (depicted in Figure 16.1) is smaller in extent than that of the main development site (depicted in Figure 3.4). Permanent infrastructure is proposed in the main development site (paragraph 3.4.1) and therefore this site will not be restored to its original use and therefore has</p>

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			<p>potential to cause flood risk and drainage impacts during the operational phase. Modelling should be used to understand flood risk post-development.</p> <p>The receptors scoped out of the assessment during operation are not identified. Whilst Table 16.11 identifies 'Bradwell B development and flood defences' and 'existing people and property' as receptors scoped in during operation, it is unclear which receptor classes (listed in paragraph 16.8.1) these relate to. On this basis, the Inspectorate cannot agree to scope out from the assessment any receptors during the operational phase as it is not clear which receptors are being scoped out or what the potential zone of impact (ZOI) is during operation. The Applicant should assess all potential operational flood risk and drainage impacts to sensitive receptors during operation where significant effects are likely to occur.</p>
4.11.3	Paragraphs 3.6.50 to 3.6.52 and plate 3.1	Receptors at off-site development locations	<p>The Scoping Report paragraphs 3.6.50 to 3.6.52 states that off-site development will be removed and land use reinstated to their original use although some off-site development elements may be retained. In paragraph 16.8.4 it states that receptors will be scoped out of assessment during the operational phase due to land outwith the main development site being reinstated back to original use at the end of the construction phase, but this does not account for some off-site development elements that are proposed to be retained.</p> <p>Where any off-site development elements of the Proposed Development are retained, the flood risk and drainage Chapter should assess impacts where significant effects are likely to occur.</p>

ID	Ref	Other points	Inspectorate's comments
4.11.4	Table 16.8	Receptor sensitivity	<p>Receptor sensitivity is drawn from Table 2 of the National Planning Policy: Guidance for Flood Risk and Coastal Change. However, Table 2 only categorises 'development' in terms of its vulnerability to flooding. This does not categorise sensitive receptors defined outside of the term 'development' such as heritage and ecological receptors which are listed as receptors in Scoping Report paragraph 16.8.1.</p> <p>The ES should include a method for defining the sensitivity of ecological and heritage receptors to flood risk and drainage impacts where significant effects are likely to occur.</p>
4.11.5	Paragraph 16.7.5	Impact magnitude	<p>Impact magnitude is proposed to be defined in line with the flood hazard classification as defined by DEFRA's 'Supplementary Note on Flood Hazard Ratings and Thresholds for Development Planning and Control Purpose' (2008) by combining flood depth and velocity. This flood hazard classification is defined in terms of flood risk to people and does not account for/measure flood risk to other receptors such as ecological, heritage, commercial, industrial, agricultural land and residential property.</p> <p>The ES should justify why this methodology is appropriate for all receptors or include a method for defining impact magnitude in relation to all sensitive receptors.</p>
4.11.6	Paragraph 3.4.19	Rail Transport	<p>Scoping Report paragraph 3.4.19 states that rail infrastructure is being considered to transport materials and that should this method of transport be adopted, the extent of the works will be defined and consulted on and should it be necessary, the Proposed Development will be rescoped.</p> <p>In the event that a rail transport method is adopted and further works are required, the Flood Risk Assessment (FRA) should include</p>



ID	Ref	Other points	Inspectorate's comments
			<p>an assessment of the construction and operation as a result of these further works where significant effects are likely to occur.</p>
4.11.7	Tables 16.11 and 16.12 and paragraph 16.8.1	Receptors and receptor classes identified in the ZoI and taken forward for assessment	<p>Scoping Report Table 16.11 presents receptors potentially impacted by flood risk and drainage as a result of the Proposed Development. This does not assign the receptor classes listed in paragraph 16.8.1 to relevant receptors. Receptors are only identified within the main development site and at the off-site development, however, the flood risk and drainage ZoI extends beyond the main development site as identified on Figure 16.1; therefore, it is unclear whether all sensitive receptors with potential to be impacted have been identified.</p> <p>Additionally, Table 16.11 identifies that some receptors may be impacted during operation, for example, the Bradwell B development itself, but this is not included as a receptor/impact to be assessed in Table 16.12.</p> <p>The ES should ensure that the assessment is informed by the ZOI and flood risk receptors should be correctly identified and assigned to the right classes. The ES assessment should also address the temporal scope during construction, operation and decommissioning considering the longevity of the Proposed Development.</p>
4.11.8	Appendix 15A 1.3.1	Post-development flood risk modelling and Climate Change projections	<p>The Scoping Report Appendix 15A states that data will be gathered to inform flood risk assessment modelling. Paragraph 1.3.1 states that this will characterise the baseline flood risk environment. This should include all sources of flooding including artificial sources and apply the most up to date and time appropriate climate change projections. Modelling should be calibrated where appropriate and the ES should explain where and how this has been done.</p>

ID	Ref	Other points	Inspectorate's comments
4.11.9	Chapter 16 and Table 16.1	Climate change H++ flood scenario	<p>Certain elements of the Proposed Development are regarded as 'safety critical', such as the Nuclear island, and a raised platform is proposed to protect these safety critical elements from changes in sea levels(paragraph 3.4.6). However, it is unclear what flood risk scenarios will be applied when predicting impacts, and whether the assessment will apply H++ allowances.</p> <p>The Applicant should explain their approach to assessment with reference to the National Policy Statement for Energy EN-1 and government guidance (<a href="https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances">https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances</a>) and make effort to agree the approach with the relevant consultation bodies including the Environment Agency</p>
4.11.10	Table 16.13 and 16.8.7	Raised Platform, defence mitigation and potential impacts	<p>Scoping Report Table 16.13 includes proposed mitigation in the form of the raised platform on which the development would be located and raising the flood defences around it. Mitigation also has the potential to impact and change the hydrological regime on land and other aspects such as ecology and landscape.</p> <p>The ES should explain how the Proposed Development will be accessed during flood events and how mitigation measures may influence the existing and future hydrological regime in the ZoI. The ES should assess impacts where significant effects are likely to occur.</p>
4.11.11	Chapter 16	Infiltration	<p>The Scoping Report lacks inclusion of infiltration in the proposed assessment. Infiltration rates should be used to inform both the assessment of flooding and potential mitigation such as Sustainable Urban Drainage. Potential impacts resulting from infiltration should be assessed in the ES where significant effects are likely to occur.</p>

ID	Ref	Other points	Inspectorate's comments
4.11.12	Reference 16.12 and Table 16.1	Strategic Flood Risk Assessment (SFRA)	<p>The Scoping Report refers to the Mid Essex SFRA in Table 16.1 as relevant 'legislation and policy' to the Proposed Development. Although referenced as 2017 in paragraph 16.12, the document was published in 2007 and the data it contains is outdated and it is based on discontinued policy and practice.</p> <p>The ES should recognise these limitations and ensure that the assessment and modelling are based on appropriate, up to date data or else explain how these deficiencies have been updated to reflect results relevant in the present day/future.</p>
4.11.13	16.6.4	Overtopping of Flood Defences	<p>Scoping Report paragraph 16.6.4 describes potential coastal flood risk and the protection that flood defences provides, but this does not consider overtopping of flood defences. The ES should assess impacts from overtopping where significant effects are likely to occur.</p>
4.11.14	16.6.11	Fluvial flood risk	<p>Scoping Report paragraph 16.6.11 states that fluvial modelling is not available for the Weymarks River and flood risk mapping will be used to characterise the baseline of surface water flood risk.</p> <p>The Applicant should make effort to agree the approach to the assessment with relevant consultation bodies.</p>
4.11.15	16.6.17 to 16.6.19 and 16.6.68	Impacts from changing sea levels	<p>The Scoping Report excludes impacts of sea level rise on groundwater levels and ditch systems and subsequent knock on impacts from flooding.</p> <p>The ES should include an assessment of impacts from sea level rise on groundwater, ditches and flood risk where significant effects are likely to occur.</p>

ID	Ref	Other points	Inspectorate's comments
4.11.16	Table 16.13	Watercourse crossings	Where the Proposed Development proposes new watercourse crossings, the methods and locations should be defined in the ES. Effort should be made to agree the approach to the assessment with relevant consultation bodies.
4.11.17	3.3.5, 16.6.13	Tidelocking and Drainage of the Weymarks Sluice Outfall	<p>The outfall to the Blackwater estuary is via the Weymarks sluice which can be tidelocked during high tides and blocked by beach drift.</p> <p>Impacts from tidelocking and blockage scenarios should be assessed in the FRA and ES as a worst-case scenario where significant effects are likely to occur. Where mitigation is necessary, effort should be made to agree the mitigation measures with the relevant consultation bodies.</p>
4.11.18	3.4.17	Temporary development	Whilst the Proposed Development proposes a number of temporary elements during construction, the construction period lasts up to 12 years. Therefore, in line with the National Planning Policy Framework (NPPF) any associated SUDs should be set out in the ES and secured via the DCO; effort should be made to agree these mitigation measures with the relevant consultation bodies.
4.11.19	Table 16.1	Demonstration of locating vulnerable development in line with NPPF	<p>The location of vulnerable development should be determined in line with the NPPF which requires the most vulnerable development to be located in areas of lowest flood risk unless there are overriding reasons to prefer a different location.</p> <p>The ES should demonstrate how the Applicant's design approach aligns with this requirement.</p>

## 4.12 Coastal Geomorphology and Hydrodynamics

(Scoping Report Section 17)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.12.1	17.7.7	Off-site associated development (off-site highways works, park and ride facilities, freight management facilities) and the off-site power station facilities	As their specific locations are currently unknown, the Inspectorate does not agree that these matters may be scoped out of the assessment according to the justification that they are sufficiently distant from the marine environment. Accordingly, the ES should include an assessment of these elements unless it is subsequently agreed with relevant consultation bodies that they will not give rise to any likely significant effects. This should be evidenced in the ES.
4.12.2	17.7.9 & Table 17.19	Marine works effects on Gunfleet Sands and Buxey Sands	<p>No evidence had been provided to justify the statements that potential impacts of the Proposed Development would be in or close to the nearshore zone close to the main development site and would not extend to these sandbanks, and that there is no pathway for impacts from activity. The location of Gunfleet Sands and Buxey Sands is not identified on any plan and very limited information on the proposed marine works has been provided in the Scoping Report.</p> <p>The Inspectorate does not consider that sufficient information has been provided in the Scoping Report to support a decision to scope these matters out of the ES. In particular, the Scoping Report does not provide a clear description of the marine works which are proposed. Accordingly, the ES should assess impacts on Gunfleet Sands and Buxey Sands where significant effects are likely to occur.</p>

ID	Ref	Other points	Inspectorate's comments
4.123	Table 17.1	Policy	<p>The Inspectorate notes that plans relevant to the Proposed Development, such as the Draft South East Inshore Marine Plan (dSEIMP), are currently in preparation. The assessments in the ES should have regard to these plans, and efforts made to understand the relevant implications at the time of the DCO application.</p> <p>In addition to the Essex and South Suffolk Shoreline Management Plan and the dDEIMP, the assessment should take account of relevant Marine Plans, River Basin Management Plans and maintenance programmes for flood and coastal defences, particularly in relation to the potential for significant coastal effects resulting from the proposed marine infrastructure.</p>
4.124	Tale 17.2	Guidance	<p>The Inspectorate notes that that the Environment Agency's (EA's) 2011 guidance: 'Adapting to Climate Change: Advice for Flood and Coastal Erosion Risk Management Authorities' is included in the list of technical guidance that has been used to inform the scope of the assessment, although it is subsequently stated that it is out of date as it is based on data from UK Climate Projections 2009 (UKCP09). Taking into account that the climate projections were updated in 2018, the assessment in the ES should be based on up to date advice and data, and the Applicant should make efforts to agree the approach with relevant consultation bodies.</p>
4.125	Section 17.3	Methodology	<p>Efforts should be made to agree the scope of and methodology for the assessment with relevant consultation bodies including, for example, the EA, Natural England (NE), the MMO and Historic England.</p>
4.126	Sections 17.4 & 17.5	Baseline information	<p>In respect of the baseline information, a number of locations/features are described as depicted on Figure 17.1, entitled 'Bathymetry and defences of the Blackwater Estuary', however very</p>

ID	Ref	Other points	Inspectorate's comments
			few of those are identified therein, so it is not possible to read across from the text to the figure. Such figures included in the ES should clearly identify relevant features/locations that are described in the text so that their relationship to the Proposed Development and any implications for the assessment can be clearly understood.
4.12.7	Section 17.5	Receptors	Other than in response to a Stage 1 consultation comment made by Historic England (Table 17.4), no reference is made to the consideration of heritage assets in this assessment. The ES should include an assessment of potential impacts on heritage assets where significant effects are likely to occur.
4.12.8	17.6.4	Methodology	Descriptions of the modelling tools used to assist the prediction of impacts should be provided in the ES.
4.12.9	Section 17.6	Methodology	It is noted that the significance of an effect is to be determined by combining receptor sensitivity, impact magnitude and receptor value, and descriptors relating to these are set out in a number of tables in Section 17.6. It is not stated from where the descriptors are derived. The ES should explain the basis for these descriptors and if they were informed by, for example, guidance documents or professional judgment.
4.12.10	Tables 17.13 & 17.15	Methodology	Table 17.15 sets out how the value of a receptor could alter the ascribed significance of an effect. However, the level of the resulting combined effect is shown as either 'significant', 'not significant' or 'potentially significant', rather than according to the effect classifications set out in Table 17.13, ranging from 'negligible' to 'major'. The methodology should be applied consistently throughout the assessment and significant effects should be described according to the classifications as set out. It should be clear for which effects mitigation would be required. In addition, it is

ID	Ref	Other points	Inspectorate's comments
			important that effects are transparently categorised in relation to informing the cumulative assessment.



## 4.13 Marine Water Quality and Sediments

(Scoping Report Section 18)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.13.1	18.7.36	Off-site development impacts	<p>The Scoping Report proposes to scope out off-site development (ie off-site highways works, park and ride facilities and freight management facilities) and off-site power station facilities from the assessment on the basis that these components are too remote from the marine environment to give rise to any likely significant effects.</p> <p>Given that the location and extent of the off-site development is yet to be determined, the Inspectorate does not agree to scope these matters out. The ES should assess impacts from off-site developments on marine water quality and sediment where significant effects are likely.</p>

ID	Ref	Other points	Inspectorate's comments
4.13.2	18.4.2 Figure 18.1	Study area and Zone(s) of Influence (ZoIs)	<p>The Scoping Report states that the geographical extent of the marine water quality and sediments study area is the tidal Blackwater Estuary; extending from Maldon approximately 15km to the west of the main development site to the eastern boundary of the Essex estuaries SAC. It is also stated that "the MCZ boundary extends just beyond the most easterly extent and would be accounted for".</p> <p>However, the Inspectorate notes that the stated 15km ZoI is not depicted on the accompanying figure (Figure 18.1), nor is the MCZ.</p>

ID	Ref	Other points	Inspectorate's comments
			<p>The ES should include a figure that clearly depicts the study area and all relevant Zones of Influence (ZoIs) for the various construction and operational activities associated with the Proposed Development; for both the main development site and off-site development. Figures provided in the ES should also depict any designated sites.</p>
4.133	Table 18.3 Table 18.23	Site drainage and other effluent	<p>Options for the management, treatment and disposal of wastewater and other effluent arising from the construction and operation of the Proposed Development should be discussed in effort to agree the approach with relevant consultation bodies and significant effects should be assessed in the ES.</p> <p>The ES should also include information to explain how site drainage discharge and other effluents will be managed prior to the completion of the Combined Drainage Outfall (CDO) and identify any anticipated environmental impacts. The ES must include an assessment of significant effects associated with any discharges prior to the completion of the CDO.</p>
4.134	Table 18.2 18.6.56	Decaying organic matter and debris	<p>Organic enrichment from treated sewage and from decaying biomass from the fish recovery and return system (FRRS) is identified as a potential impact of the Proposed Development. The ES should include an assessment of the return of dead and moribund biota and other debris associated with the construction and operation of the cooling water intake screens and FRRS; the ES should also include detail of how the Applicant intends to manage and dispose of all forms of decaying organic matter and debris encountered at the screens. The ES should address impacts upon water nutrient concentrations and associated risk of eutrophication and algal blooms in the estuary, as well as impacts to shellfish protected areas, where significant effects are likely to occur.</p>

ID	Ref	Other points	Inspectorate's comments
			<p>It is noted that the Scoping Report does not make reference to water pH; the ES should consider the potential for decaying organic matter and debris to affect both dissolved oxygen (DO) levels and water pH.</p> <p>Where significant effects are likely to occur, the ES should consider the potential for changes in water quality to indirectly affect the functioning of biological communities.</p>
4.13.5	18.4.3 Table 18.23	Marine water quality; changes in suspended solids and water turbidity	<p>The ES should consider the potential for changes in marine water quality (such as water turbidity, temperature, flow, depth, etc.) arising from the construction and operational phases of the Proposed Development to affect sensitive, protected and commercially valuable species, including receptors such as shellfish protected areas, benthic invertebrates and migrating fish. This should include the potential for suspended sediment to smother important habitat / habitat features (such as fish breeding and spawning grounds) and commercial fisheries interests, such as oyster beds.</p> <p>The ES should also consider the potential for changes in water quality to impact the effectiveness of the FRRS and any fish behavioural deterrents that may be considered as part of the proposed mitigation.</p> <p>If significant effects are likely, they should be assessed and presented in the ES; such matters should be addressed in the relevant assessments of the ES, eg Biodiversity and Socio-Economic aspect chapters.</p>
4.13.6	Table 18.24	Sediment effects during operation	<p>The ES should assess the potential for impacts to marine sediment quality during the operational phase of the Proposed Development, where significant effects are likely to occur.</p>

ID	Ref	Other points	Inspectorate's comments
4.13.7	18.7.26	Climate change	<p>The Scoping Report states that the interaction between thermal discharges and climate-related increases in seawater temperature on marine water quality will be considered as part of the ES.</p> <p>Where significant effects are likely to occur, the ES should also consider how climate change-related impacts may facilitate the spread of INNS, affect species abundance / distribution, fish migratory movements, etc. in the relevant assessments of the ES.</p>

## 4.14 Navigation

(Scoping Report Section 19)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.14.1	19.7.4	Off-site development impacts	<p>The Scoping Report proposes to scope off-site development (including off-site highway works, park and ride facilities, and freight management facilities) and off-site power station facilities out of the assessment on the basis that these components are remote from the marine environment. In respect to navigation, the Scoping Report states that even where a theoretical pathway exists (eg river to sea navigation pathways), the impacts on the marine environment would be negligible.</p> <p>As the specific locations of the off-site developments are currently unknown, the Inspectorate does not agree that these matters may be scoped out of the assessment. Accordingly, the ES should include an assessment of these elements unless it is subsequently agreed</p>

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			with relevant consultation bodies that they will not give rise to any likely significant effects. This should be evidenced in the ES.

ID	Ref	Other points	Inspectorate's comments
4.14.2	19.4.1 19.5.14	Navigational study area	Paragraph 19.4.1 states that the navigational study area is 12 nautical mile (nm) radius around the main development site, encompassing the proposed offshore infrastructure (eg cooling water intake, outfall head structures and the BLF). However, the Inspectorate notes that this study area is not depicted on any of the accompanying figures; this should be presented in the ES.
4.14.3	Table 19.12	Navigational study area	The construction works will require dredging and excavations in the marine environment and the material produced will potentially require transportation to a disposal site. The transit of any vessels from extraction site(s) to the identified disposal site(s) should be included within navigational assessments presented in the ES and the Applicant should consider the need to extend the study area boundary accordingly and make effort to agree study area(s) with the relevant consultation bodies.
4.14.4	19.7.3	Vessel types and numbers	The ES should identify the anticipated type and number of vessel movements generated by the development during the construction and operation phases and assess the potential impact to other existing vessel movements in the area. Cross-reference also should be made to the Transport section of the ES.
4.14.5	19.5.12	Existing and future baseline marine traffic	The Scoping Report states that "marine usage could change, for example, following future coastal infrastructure development or

ID	Ref	Other points	Inspectorate's comments
			<p>expansions, which in turn could increase navigational usage in the study area".</p> <p>The ES should also take into account the potential for changes to the structure of inshore fisheries that may affect commercial and recreational vessel numbers, movements and activities within the navigational study area when establishing existing and future baseline conditions and within the assessment of likely significant effects.</p>
4.14.6	Table 19.12 Table 19.13	Potential for damage to marine and intertidal assets	<p>The ES should consider the potential for construction and operation activities to damage marine and intertidal heritage assets and other structures, such as the Scheduled fish-traps located in the Blackwater Estuary and report on any likely significant effects and any proposed mitigation in the relevant assessments of the ES, eg Chapter 22 – Historic Environment: Terrestrial and Marine.</p>
4.14.7	Table 19.13	Operational disturbance impacts on fishing and recreational vessels	<p>The operation of the BLF has potential to cause disturbance to fishing and recreational activities through collision and displacement. These impacts must be assessed where a likely significant effect would occur. Cross-reference also should be made to the Transport section of the ES.</p>

## 4.15 Landscape and Visual Amenity

(Scoping Report Section 20)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.15.1	Table 20.23	Dedham Vale AONB: Direct or indirect effects on the statutory purpose of the Dedham Vale AONB, its designated special qualities, landscape character and landscape setting.	<p>The landscape assessment work undertaken to date has focused primarily upon the main development site and not on the off-site development. The preliminary ZTV extends 25km from the main development site, but it is not clear whether this includes the zone for marine infrastructure, which is described on Figure 1.1 as 'indicative'.</p> <p>Due to current uncertainty regarding the design parameters and locations of the off-site development and the final extent of the ZTV, the Inspectorate does not agree to scope out direct or indirect effects on the Dedham AONB and these matters should be assessed in the ES where significant effects are likely.</p>
4.15.2	Table 20.23	Suffolk Coast and Heaths AONB: Direct or indirect effects on the statutory purpose of the Suffolk Coast and Heaths AONB, its designated special qualities, landscape character and landscape setting.	<p>Due to current uncertainty regarding the design parameters and locations of the off-site development and the final extent of the ZTV, the Inspectorate does not agree to scope out direct or indirect effects on the Suffolk Coast and Heaths AONB and these matters should be assessed in the ES where significant effects are likely.</p>
4.15.3	Table 20.23	Indirect effects upon NCAs within the LVIA study area.	<p>The Scoping Report does provide information on the direct impacts upon NCAs within the LVIA Study area. However, the information does not explain if indirect impacts on the NCAs are likely. The ES should therefore include a specific explanation of the indirect</p>

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			impacts on the NCAs. If indirect impacts are likely to result in significant effects these should be assessed in the ES.
4.15.4	Table 20.23	Indirect effects upon LCAs and SCAs that lie outwith the preliminary and subsequently refined ZTVs for the main development site and off-site associated developments.	The Scoping Report does provide information on the direct impacts to LCAs and SCAs within the LVIA Study area. However, there is little information explaining the regard to indirect impacts. The ES should therefore include a specific explanation of the indirect impacts on the LCAs and SCAs. If indirect impacts are likely to result in significant effects these should be assessed in the ES.
4.15.5	Table 20.23	Visual effects on receptors located outside the preliminary and subsequently refined ZTVs.	It is not currently clear whether the ZTVs take into account changes to site levels required to delivery flood risk mitigation. There is also a lack of evidence regarding the agreement reached of the ZTVs for the main development site and off-site development.  In the absence of this information the Inspectorate does not agree to scope these matters out. The ES should assess these matters where a likely significant effect would occur.

ID	Ref	Other points	Inspectorate's comments
4.15.6	20.5	Baseline and methodology	The baseline should include a detailed assessment of the surrounding area which should include details of the existing landscape features present across the main development site, associated off-site development corridors and principal views of the station afforded from both the Dengie peninsula and from the northern side of the Blackwater.



ID	Ref	Other points	Inspectorate's comments
4.15.7	20.4.7	Zone of Theoretical Visibility (ZTV)	The ZTV (and subsequent refinements) should be based on the relevant parameters applicable to the Proposed Development. This will include parameters applicable to address issues such as flood risk, eg the raised site platform. Where uncertainty exists and flexibility is sought, this should be assessed according to a worst-case defined in the ES. The ZTV should include all landscape aspects which may be affected by the Proposed Development and this should also include impacts on historic landscapes, seascapes and townscapes. The Applicant should make effort to agree the approach to the assessment with relevant consultation bodies.
4.15.8	Table 20.5	Residential visual amenity assessment (RVAA)	The study area for the RVAA extends to 2km from the Proposed Development; however, this does not take into account views across open water from which views can be further reaching. This assessment should be extended to take into account views from residential properties in Mersea.
4.15.9	Table 20.9	Viewpoint selection and photomontages	Table 20.10 provides a list of viewpoints which have been used to date for assessment work, but they have not been agreed with consultation bodies. The Applicant should make effort to agree viewpoints for the assessment with relevant consultation bodies. Any visible plumes from aerial emissions should be described in the ES and included in the photomontages presented within the assessment of visual effects.
4.15.10	20.6.3	Temporary structures	The ES should assess the significant landscape and visual effects resulting from construction of temporary structures including those required for the marine infrastructure.
4.15.11	Table 20.20	Receptors	In addition to the sensitive receptors outlined in paragraph 20.6.24 and set out in Table 20.20 of the Scoping Report, the ES should

ID	Ref	Other points	Inspectorate's comments
			<p>assess the potential visual impacts on users of leisure facilities, such as the Eastland Meadows Caravan Site and Country Park, other community facilities in the area, as well as the recreational uses, including all affected PRoW, where significant effects are likely. The Applicant should make effort to agree the receptors with relevant consultation bodies and the additional receptors identified should be included on relevant figures submitted with the ES.</p>
4.15.12	20.6.79	Night-time lighting	<p>In defining the study area for night-time lighting, the Applicant should take into account that lighting may be seen from different distances than those which are being considered in the day time assessment. The Applicant should make effort to agree the night-time lighting study area with relevant consultation bodies.</p> <p>The Inspectorate recommends that the ES also include an assessment of light spill to local residents where this has the potential to lead to significant effects from disturbance during the construction and operational periods.</p>
4.15.13	20.6.58	Cumulative and in-combination effects	<p>The Applicant should make effort to agree the sites identified for inclusion in the cumulative and in-combination assessments with the relevant consultation bodies.</p>
4.15.14	20.7.1	Potential effects	<p>The Scoping Report includes a list of potential effects associated with the Proposed Development but this list should not be regarded as conclusive at this stage since the full extent of the Proposed Development is yet to be determined. The ES should identify and assess all potentially significant effects from the main development and off-site elements.</p>
4.15.15	20.8	Mitigation measures	<p>The Scoping Report contains details relating to potential mitigation measures which could be used for the Proposed Development; such</p>

ID	Ref	Other points	Inspectorate's comments
			measures could be incorporated into a specific Landscape Management Plan or similar as applicable. The Applicant should discuss and make effort to agree the planting specification / species mix with the relevant consultation bodies. The ES should explain clearly how the proposed landscaping would mitigate the effects on landscape and visual receptors, and how these effects would change as the proposed planting matures. Interactions with other ES aspects, for example beneficial effects on local ecology, should be explained.
4.15.16	n/a	Design	The ES should explain how the design and alignment of the proposed structures and materials to be used have been selected to minimise impacts to landscape and visual receptors through conserving and / or enhancing the existing physical and aesthetic character of the area.

## 4.16 Recreation

(Scoping Report Section 21)

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

ID	Ref	Other points	Inspectorate's comments
4.16.2	21.4.2	Study Area	The study area should reflect the extent of the likely impacts. Effort should be made to agree the study area with relevant consultation bodies.
4.16.3	21.5.19	Receptors	The Scoping Report acknowledges that PRow and other recreational resources will be impacted by the Proposed Development. However, there are a number of other recreational resources which are not included, these include PRow, green infrastructure assets and other footpaths. Effort should be made to agree the receptors with relevant consultation bodies.
4.16.4	21.4.6	Potential impacts	Noting the impacts identified in Paragraph 21.4.6 of the Scoping Report, the ES should assess potential impacts on ecologically sensitive sites from increased visitor pressure, with reference to the Terrestrial and Freshwater Ecology and Ornithology assessment where significant effect are likely.

## 4.17 Historic Environment: Terrestrial and Marine

(Scoping Report Section 22)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.17.1	22.7.3 & Table 22.16	Adverse direct effects on heritage assets outwith the site boundary	The Inspectorate does not agree to scope out these matters from the ES. The off-site development is not defined sufficiently to support this request. In the absence of such information, the Inspectorate is not in a position to agree to scope out these matters

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			from the assessment. The ES should assess these matters where a likely significant effect would occur.
4.17.2	22.7.3& Table 22.16	Adverse effects arising from the construction or operational phases of the main development site through changes to settings of heritage assets outwith the extended study area	<p>The Scoping Report states that the perceptibility of the Proposed Development in the setting of heritage assets located outwith the extended study area would be too limited for discernible adverse effects to arise. The Inspectorate considers that this conclusion is premature not least because representative viewpoints for the Landscape and Visual Assessment (LVIA) assessment have not been agreed with relevant consultation bodies such as Historic England and Essex County Council. The 'extended study area' is also undefined and it is unclear whether it relates to the 12km limit.</p> <p>Therefore, the Inspectorate does not agree to scope out these matters from the assessment; the ES should assess these matters where significant effects are likely to occur.</p>
4.17.3	22.7.3 & Table 22.16	Adverse effects arising from construction or operation phases of off-site associated development and off-site power station facilities through changes to settings of heritage assets outwith the respective study area	The Scoping Report contains limited information regarding off-site development. The Inspectorate does not agree to scope out these matters from the assessment. The ES should include an assessment of these matters where significant effects are likely to occur.

ID	Ref	Other points	Inspectorate's comments
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4.17.4	22.1.5	Scope of the assessment	<p>The Scoping Report states that to date, desk studies have focused on assessing the historic environment of the main development site. The ES will also need to consider potential direct and indirect (eg, setting and LVIA) effects on known and unknown heritage assets in the locations of the off-site development, and will need to clearly present the location and extent of these works in relation to such assets.</p>
4.17.5	22.1.5	Deposit model	<p>The Scoping Report mentions that geotechnical investigations across the main development site have allowed geoarchaeological analysis of buried deposits and the production of a deposit model. A description of this deposit model should be provided in the ES. Deposit modelling will usefully inform the geo-archaeological assessment and need for mitigation of significant effects. There is potential for impacts to archaeology from changes in the water environment given the possible magnitude of change in the area. The ES should therefore include discussion of deposit modelling and its significance for known and unknown archaeological assets and deposits, illustrated with plans, sections, and 3-D views. Significant effects associated with these impacts should be presented in the ES.</p>
4.17.6	22.4.2	Assessment study area	<p>The Scoping Report does not clearly explain the basis on which the 1km assessment study area was determined appropriate. The Inspectorate considers that the study area may need to be extended to ensure the full extent of impacts are taken into account. For example, to include waterlogged alluvial and peat deposits that may be present within the Proposed Development, which the Inspectorate notes can be acutely sensitive not only to direct impacts of construction but also to changes in the geohydrology and water table across a wider area. The Applicant should make effort to agree the extent of the study area with relevant consultation bodies.</p>

Scoping Opinion for  
Bradwell B New Nuclear Power Station

4.17.7	22.4.3	Study area	The Scoping Report proposes a 12km radius study area for assessment of impacts to the setting of heritage assets. The Inspectorate considers that the extent of the study area should be informed by the nature of the assets rather than an arbitrarily defined distance criteria. It may be appropriate for different distances relevant to the different assets concerned. The Applicant should make effort to agree the relevant study area with consultation bodies and take into account features such as geology and topography.
4.17.8	22.4.7 & Table 22.6	Methodology - Digital Terrain Model	Table 22.6 notes that Environment Agency LiDAR data will be used to produce a Digital Terrain Model, "where coverage is available". The Applicant should make effort to ensure that the information used to inform the assessment is sufficiently robust. Effort should be made to agree the relevant information necessary to develop Digital Terrain Model. The Inspectorate notes that for heritage and archaeological assessment, resolutions of 0.25m are typically most effective.
4.17.9	22.4.8	Methodology - work undertaken to date	The Scoping Report refers to a number of reports undertaken to inform the design of the main development site. Such reports, where they are relevant to the assessment, should be included in the ES or appended to it.
4.17.10	22.5.9, 22.5.10	Baseline information - Palaeolithic deposits	The Scoping Report notes that the geoarchaeological deposit model highlights the presence of deep, undisturbed alluvial sequences of varying ages below large areas of the main development site. The ES should include this preliminary modelling information and sections and plans of the deposits concerned.
4.17.11	22.5.15	Baseline information - Iron age and Roman	The Scoping Report refers to information used to inform the baseline assessment relevant to specific features such as cropmarks and settlement and field system patterns. The Applicant should take

			care to ensure that the baseline information used in the ES is robust and based on up to date research and assessment. The Applicant should engage with relevant consultation bodies in effort to agree the information sources to inform the baseline assessment.
4.17.12	22.5.33	Off-site associated development – highways and transport	The Scoping Report notes the potential impact of the Proposed Development on historic settlement and field patterns, and the survival of numerous historic buildings, many of which are Listed or locally listed. A large number of these buildings are immediately alongside roads in settlements such as Steeple and South Woodham Ferrers, and the Applicant should ensure that potential effects of noise and vibration are adequately cross-referenced with built heritage assets and transport.
4.17.13	22.6.12 & Table 22.12	Methodology - significance assessment matrix	<p>The Scoping Report states that the matrix in Table 22.12 has been prepared to guide the assessment of whether effects on the historic environment are to be considered significant or not.</p> <p>The origin of the matrix is not clear and it only contains binary distinctions of 'Significant' or 'Not Significant'. There is no reference to more nuanced categorisations such as 'Neutral', 'Slight', 'Moderate' and 'Major'. The Inspectorate considers that the proposed approach may oversimplify the assessment of significance and may not align with the overarching methodology for the ES.</p>
4.17.14	22.7.1 & Table 22.13	Assessment - receptors subject to potential effects	The Scoping Report only mentions operational impacts to settings arising from changes in visibility or noise that could result in harm to the significance of heritage assets. This therefore only addresses effects on above-ground heritage assets such as buildings, monuments and visible landscapes, yet does not consider palaeoenvironmental and archaeological deposits. The ES should assess these matters where significant effects are likely.



Scoping Opinion for  
Bradwell B New Nuclear Power Station

4.17.15	22.7.2 & Tables 22.14- 22.15	Assessment - likely significant historic environment construction and operational effects	The assessment in the ES should address impacts resulting from gradual compression and compaction of palaeoenvironmental and archaeological deposits during the operation of the Proposed Development. The ES should also address any long-term impacts resulting from changes to processes such as dewatering and / or desiccation due to drainage infrastructure, where significant migration effects are likely to occur.
4.17.16	22.8.1	Potential mitigation measures	The Scoping Report states that “Any loss of built heritage assets or historic landscape elements would be mitigated through an appropriate level of survey and recording where avoidance or sensitive adaptation is not feasible.” The Applicant should make effort to agree this approach with relevant consultation bodies and take into consideration relevant guidance e.g. principles outlined in Historic England’s <i>Conservation Principles, Policies and Guidance</i> 2015.
4.17.17	22.8.1	Potential mitigation measures	The Inspectorate notes the commitment made in the Scoping Report to provide mitigation to address the impacts from temporary works. The ES should include sufficient detail in relation to the planned restoration and enhancement measures and explain how they are to be secured.
4.17.18	22.9.1	Assumptions and limitations	The Scoping Report notes that the assessment of the effects on heritage assets will assume a worst-case scenario.  The ES should set out the limitations experienced during the survey and assessment work regarding heritage assets, such as technical limitations and issues gaining access to land.

## 4.18 Biodiversity: Terrestrial and Freshwater Ecology and Ornithology

(Scoping Report Section 23)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.18.1	n/a	n/a	No matters are proposed to be scoped out of the assessment

ID	Ref	Other points	Inspectorate's comments
4.18.2	Paragraph 23.4.3 Table 23.5	4.18.3 Field survey areas	The Scoping Report states that the field survey areas have been defined on a precautionary basis to ensure that the ZoI relevant to all ecological features would be covered. Table 23.5 lists the study areas for each receptor. Although these study areas are stated to be precautionary, it is not always clear what the justification is for this statement. The ES must explain how the study area relates to the Proposed Development's ZoI; where professional judgement has been relied on, an explanation should be provided of the factors and criteria relied on in reaching a decision about the extent of the study area.
4.18.4	Table 23.11 Paragraph 23.7.2	Importance of the Proposed Development for ecological features	The Scoping Report assigns a different level of importance to Habitats and Species of Principal Importance, red-listed and legally protected species depending on the size or extent of the population or habitat that would be affected. This appears to conflate importance of a receptor with the magnitude of impact it would experience. On the basis of the explanation provided in the report, it is difficult to determine if the ES would provide sufficient information to allow the SoS to meet their duty to have regard for biodiversity. The Applicant is advised to seek to agree the level of importance

ID	Ref	Other points	Inspectorate's comments
			that should be assigned to biodiversity receptors with relevant stakeholders.
4.18.5	23.8	Potential mitigation	The Inspectorate notes that at this stage in the project, mitigation can only be broadly described. As a general principle, the ES should seek to explain how the mitigation hierarchy has been adhered to and how the Proposed Development has sought to avoid and minimise effects on biodiversity before moving to mitigation. The ES should make a clear distinction between mitigation, compensation and enhancement measures.
4.18.6	-	Biodiversity effects associated with the affected road network	Paragraph 23.1.3 states that the Transport chapter will be one of the aspect chapters used to support and inform the biodiversity assessment for the ES. However, it is not clear from the Scoping Report what consideration would be given to impacts on biodiversity features in proximity to the affected road network. The ES should assess biodiversity receptors in proximity to the affected road network, for instance because of air quality effects during construction, where significant effects are likely.

## 4.19 Marine Ecology and Fisheries

(Scoping Report Section 24)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.19.1	24.7.12	Off-site development impacts	The Scoping Report proposes to scope off-site associated development (including off-site highways works, park and ride

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			<p>facilities and freight management facilities) and off-site power station facilities out of the assessment on the basis that these elements are remote from the marine environment. It is stated that marine water quality effects associated with project-provided accommodation near to the main development site will be considered under the main development site construction effects.</p> <p>Given the lack of information in relation to the location and extent of the proposed off-site associated development and off-site power station facilities, the Inspectorate cannot agree to scope this matter out of the assessment at this time; the ES should assess impacts from off-site development on marine ecology and fisheries where significant effects are likely to occur.</p>

ID	Ref	Other points	Inspectorate's comments
4.19.2	24.5	Baseline – seahorses	<p>In their comments, Natural England mention the presence of seagrass beds in the Blackwater estuary and the potential for seahorses to be present and potentially impacted by the Proposed Development, eg via damage and disturbance of the benthic environment. The ES should establish the presence of any seahorse species and include an assessment of impacts, where significant effects are likely to occur.</p>
4.19.3	Tables 23.13 and 24.5	Protected and migratory fish	<p>The Inspectorate considers the potential for protected and migratory fish species to occur within the vicinity of the Proposed Development, including species that move between both freshwater</p>

ID	Ref	Other points	Inspectorate's comments
	Paragraphs 24.5.10 and 24.5.20		<p>and marine environments (such as European eel and River lamprey) which may be functionally linked to other nearby protected sites.</p> <p>The ES should establish the presence of such species and assess impacts associated with the construction and operation of the Proposed Development, including the potential for the development to impede / create a barrier to fish migration.</p>
4.19.4	Table 24.1	The Eels Regulations 2009	<p>The Inspectorate notes that Table 24.1 refers to Eel Recovery Plans and Eel Management Plans but does not refer to the Eel Regulations 2009. The ES should include reference to the Eel Regulations and any relevant requirements.</p> <p>The Applicant should agree the approach to meeting the requirements of the Eels Regulations with the EA and other relevant bodies, including any requirements for eel survey and the provision of eel and other fish pass facilities.</p>
4.19.5	Tables 24.8 and 24.16	Designations - Marine Conservation Zones (MCZs)	<p>It is unclear how MCZs are valued in Table 24.8; this should be clarified in the ES.</p> <p>The Inspectorate also notes that the Scoping Report often states "the MCZ" without clear specification as to which of the MCZs (identified in Table 24.16) is being referred to; this should be made clear in the ES.</p>
4.19.6	Table 24.17 Table 24.18	Noise and vibration	<p>Tables 24.17 and 24.18 outline the likely significant marine ecology construction and operational effects and in relation to several activities "Underwater noise changes" are listed as a possible 'pressure'. However, the potential for vibration impacts resulting</p>

ID	Ref	Other points	Inspectorate's comments
			<p>from the stated construction and operational activities has not been addressed.</p> <p>The ES should assess vibration impacts to fish and other marine species where significant effects are likely to occur, both alone and cumulatively with other developments. The assessment methodology and any necessary mitigation measures should be described, and effort made to agree the approach with relevant consultation bodies.</p>
4.19.7	4.19.83.4.31 3.4.33	Biosecurity and invasive non-native species (INNS)	<p>The Scoping Report states that there is potential for the importation of marine dredged aggregate and other large items within the definition of Abnormal Indivisible Load (AIL) to be transported to the main development site by sea.</p> <p>The ES should assess the potential for such activities / vessel movements to facilitate the spread of INNS, eg via ballast water and through accidents and spillages.</p> <p>The ES should also consider the potential for climate change to facilitate the spread, and exacerbate the impacts, of INNS; particularly any non-native molluscs that have potential to impact the native oyster fishery and features / objectives of the MCZ designation.</p>
4.19.9	24.8.2	Mitigation - fish recovery and return system (FRRS)	<p>The Scoping Report states that a FRRS may be installed to reduce impacts on fish at the proposed cooling water intakes.</p> <p>The Scoping Report does not, however, address the proposed approach to the assessment of impacts from the FRRS, which the Inspectorate notes has the potential to result in the direct mortality of fish and other aquatic organisms, as well as indirect effects on other species groups (eg birds). The ES should include an</p>

ID	Ref	Other points	Inspectorate's comments
			<p>assessment of impacts from the FRRS on sensitive receptors where significant effects are likely to occur.</p> <p>The ES should confirm the species, and specific life stage(s) of species, that the FRRS is anticipated to target / exclude from entering the intake. The ES should also include information about the location and dimension of the FRRS and the type of FRRS technology that is proposed, including screen type, screen mesh size and fish return point(s). Information on how the FRRS would be installed / fixed, plus any commitments to its ongoing upkeep (such as ongoing screen cleaning / anti-fouling and requirement for replacement screens, etc.) should also be detailed within the ES.</p> <p>In addition to the FRRS, the ES should provide information in relation to other mitigation measures that could reduce impacts from the Proposed Development on fish and other aquatic organisms, including low approach velocities, side-entry intakes and repulsive technologies such as behavioural deterrents.. The Applicant should make effort to agree the adequacy of any mitigation measures proposed with relevant consultation bodies, including the Environment Agency.</p>
4.19.10	24.4.8 Table 24.5	Entrapment and impingement of fish and aquatic biota	<p>The list of potential impacts associated with the main development site does not include entrapment losses to fish and other biota.</p> <p>The potential for the Proposed Development (including the FRRS) to result in the entrapment and impingement of fish and other aquatic organisms should be fully assessed in the ES. The ES should also consider indirect effects, eg impediment to fish migration, prey effects, nutrient / organic enrichment, introduction of INNS, etc.</p> <p>The Inspectorate notes that the Scoping Report does not indicate whether the Applicant proposes to install behavioural deterrents for fish, such as acoustic and light deterrents, as a form of mitigation to</p>

ID	Ref	Other points	Inspectorate's comments
			<p>minimise entrapment. Where such measures are proposed, the ES should provide further information regarding their design, anticipated effectiveness and their potential to give rise to any likely significant effects.</p>
4.19.11	24.8.2	Mitigation - timing of works	<p>The Scoping Report does not state whether the Applicant intends to time any of the proposed construction and / or operational activities as to avoid key and sensitive periods to species, such as fish spawning seasons and fish migration periods.</p> <p>The ES should assess the duration of impacts in relation to the ecological cycles (eg life cycles, breeding / spawning seasons, etc.) of the receptors being assessed.</p> <p>The Applicant should also report in the relevant aspect chapters of the ES (eg Socioeconomics) whether key periods relating to commercial and recreational fishing activities have been considered when timetabling activities associated with the construction and / or operation of the Proposed Development.</p>
4.19.12	N/A	Socioeconomics and recreation	<p>The ES should consider the potential of the Proposed Development to disrupt fishing and recreational activities (including restriction of access) during both the construction and operational phases. This should include consideration of impacts arising from use of the BLF and any vessels used to undertake dredging. Any likely significant effects should be reported within the relevant assessments of the ES.</p>



## 5. INFORMATION SOURCES

- 5.0.1 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 prospectus<sup>5</sup>
  - Planning Inspectorate advice notes<sup>6</sup>:
    - 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: Habitats 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.
- 5.0.2 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.

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<sup>5</sup> The Planning Inspectorate's pre-application services for applicants. Available from: <https://infrastructure.planninginspectorate.gov.uk/application-process/pre-application-service-for-applicants/>

<sup>6</sup> 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 BODIES<sup>7</sup>**

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 Mid Essex Clinical Commissioning Group
The relevant Clinical Commissioning Group	NHS Basildon and Brentwood Clinical Commissioning Group
Natural England	Natural England
The Historic Buildings and Monuments Commission for England	Historic England - East of England
The Historic Buildings and Monuments Commission for England (OFFSHORE ONLY)	Historic England
The relevant fire and rescue authority	Essex County Fire and Rescue Service
The relevant police and crime commissioner	Police and Crime Commissioner for Essex
The relevant parish council(s) or, where the application relates to land [in] Wales or Scotland, the relevant community council	Runwell Parish Council
	Rettendon Parish Council
	South Woodham Ferrers Town Council
	Purleigh Parish Council
	Bradwell-on-Sea Parish Council
	Stow Maries Parish Council

<sup>7</sup> Schedule 1 of The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (the 'APFP Regulations')

SCHEDULE 1 DESCRIPTION	ORGANISATION
	Cold Norton Parish Council
	Latchingdon Parish Council
	Althorne Parish Council
	North Fambridge Parish Council
	Woodham Ferrers and Bicknacre Parish Council
	Sandon Parish Council
	Danbury Parish Council
	Little Baddow Parish Council
	Springfield Parish Council
	Great Baddow Parish Council
	Steeple Parish Council
	Maldon Town Council
	Mundon Parish Council
	Woodham Walter Parish Council
	Woodham Mortimer and Hazeleigh Parish Council
Mayland Parish Council	
St. Lawrence Parish Council	
The Environment Agency	The Environment Agency
The Joint Nature Conservation Committee	Joint Nature Conservation Committee
The Maritime and Coastguard Agency	Maritime & Coastguard Agency
The Maritime and Coastguard Agency - Regional Office	The Maritime and Coastguard Agency - Colchester Marine Office
The Marine Management Organisation	Marine Management Organisation (MMO)

SCHEDULE 1 DESCRIPTION	ORGANISATION
The Civil Aviation Authority	Civil Aviation Authority
The Relevant Highways Authority	Essex County Council
The relevant strategic highways company	Highways England - East
Trinity House	Trinity House
Public Health England, an executive agency of the Department of Health	Public Health England
The Crown Estate Commissioners	The Crown Estate
The Forestry Commission	Forestry Commission - East and East Midlands
The Secretary of State for Defence	Ministry of Defence
The Office for Nuclear Regulation (the ONR)	The Office for Nuclear Regulation (the ONR)

**TABLE A2: RELEVANT STATUTORY UNDERTAKERS<sup>8</sup>**

STATUTORY UNDERTAKER	ORGANISATION
The relevant Clinical Commissioning Group	NHS Mid Essex Clinical Commissioning Group
	NHS Basildon and Brentwood Clinical Commissioning Group
The National Health Service Commissioning Board	NHS England
The relevant NHS Trust	East of England Ambulance Service NHS Trust
Railways	Network Rail Infrastructure Ltd

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<sup>8</sup> '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
	Highways England Historical Railways Estate
Canal or Inland Navigation Authorities	Essex Waterways Ltd
Dock and Harbour Authority	Maldon Harbour Improvement Commissioners (MHIC)
	Brightlingsea Harbour Commissioners
	Crouch Harbour Authority
Civil Aviation Authority	Civil Aviation Authority
Licence Holder (Chapter 1 Of Part 1 Of Transport Act 2000)	NATS En-Route Safeguarding
Universal Service Provider	Royal Mail Group
Homes and Communities Agency	Homes England
The relevant Environment Agency	The Environment Agency
The relevant water and sewage undertaker	Anglian Water
	Essex and Suffolk Water
The relevant public gas transporter	Cadent Gas Limited
	Last Mile Gas Ltd
	Energy Assets Pipelines Limited
	ES Pipelines Ltd
	ESP Networks Ltd
	ESP Pipelines Ltd
	ESP Connections Ltd
	Fulcrum Pipelines Limited
	Harlaxton Gas Networks Limited
	GTC Pipelines Limited
	Independent Pipelines Limited

STATUTORY UNDERTAKER	ORGANISATION
	Indigo Pipelines Limited
	Murphy Gas Networks limited
	Quadrant Pipelines Limited
	National Grid Gas Plc
	Scotland Gas Networks Plc
	Southern Gas Networks Plc
Electricity Generators with CPO Powers	RWE Generation UK
	Nuclear Decommissioning Authority (NDA)
The relevant electricity distributor with CPO Powers	Eclipse Power Network Limited
	Last Mile Electricity Ltd
	Energy Assets Networks Limited
	ESP Electricity 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
	UK Power Networks Limited
National Grid Electricity Transmission Plc	

**TABLE A3: SECTION 43 LOCAL AUTHORITIES (FOR THE PURPOSES OF SECTION 42(1)(B))<sup>9</sup>**

LOCAL AUTHORITY <sup>10</sup>
Chelmsford City Council
Maldon District Council
Basildon Council
Brentwood District Council
Epping Forest District Council
Uttlesford District Council
Braintree District Council
Rochford District Council
Colchester Borough Council
Castle Point Borough Council
Thurrock Council
Essex County Council
Medway Council
Southend-on-Sea Borough Council
The London Borough of Havering
The London Borough of Enfield
The London Borough of Waltham Forest
The London Borough of Redbridge
Hertfordshire County Council
Suffolk County Council

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<sup>9</sup> Sections 43 and 42(B) of the PA2008

<sup>10</sup> As defined in Section 43(3) of the PA2008



<b>LOCAL AUTHORITY<sup>10</sup></b>
Cambridgeshire County Council

**TABLE A4: NON-PRESCRIBED CONSULTATION BODIES**

<b>ORGANISATION</b>
Royal National Lifeboat Institution
Tendring District Council



## **APPENDIX 2: RESPONDENTS TO CONSULTATION AND COPIES OF REPLIES**

<b>CONSULTATION BODIES WHO REPLIED BY THE STATUTORY DEADLINE:</b>
Anglian Water
Basildon Borough Council
Bradwell on Sea Parish Council
Brentwood Borough Council
Castle Point Borough Council
Chelmsford City Council
Colchester Borough Council
Danbury Parish Council
East of England Ambulance NHS Trust
Environment Agency
Epping Forest District Council
Essex County Council and Maldon District Council (combined response)
Great Baddow Parish Council
Health & Safety Executive
Highways England
Historic England
JNCC
London Borough of Havering
London Borough of Redbridge
Maldon Town Council
Marine Management Organisation
Maritime and Coastal Agency

Scoping Opinion for  
Bradwell B New Nuclear Power Station

Ministry of Defence
National Grid
NATS
Natural England
North Fambridge Parish Council
Public Health England
Royal Mail
South Woodham Ferrers Town Council
Steeple Parish Council
Stow Maries Parish Council
Tendring District Council
Thurrock Council
Trinity House



**Anglian Water Services Ltd**

Lancaster House  
Lancaster Way  
Ermine Business Park  
Huntingdon  
PE29 6XU

Tel 01480 323000

[www.anglianwater.co.uk](http://www.anglianwater.co.uk)

Your ref EN010111\_000041\_201009

**26 October 2020**

Ms Marnie Woods  
Senior EIA Advisor  
Environmental Services  
Central Operations  
The Planning Inspectorate,  
Temple Quay House,  
Temple Quay,  
Bristol,  
BS1 6PN

Dear Ms Woods,

**Bradwell B New Nuclear Power Station: EIA Scoping Report**

Thank you for the opportunity to comment on the scoping report for the above project. Anglian Water is the sewerage undertaker for the above site. The following response is submitted on behalf of Anglian Water.

General comments

Anglian Water would welcome further discussions with Bradwell Power Generation Company Ltd prior to the submission of the Draft DCO for examination. In particular it would be helpful to discuss the following issues:

- Wording of the Draft DCO including protective provisions specifically for the benefit of Anglian Water.
- Requirement for wastewater services.
- Impact of development on Anglian Water's existing assets and the need for mitigation if required.
- Pre-construction surveys.

3. The Project

There are existing Anglian Water foul and surface water sewers and associated aboveground infrastructure within the boundary of the site which potentially be affected by the above development. These assets are critical to enable us to carry out Anglian Water's duty as a statutory sewerage undertaker.

This includes water recycling centres (formerly sewage treatment works) at Latchingdon, Tillingham and Bradwell on Sea which appear to be located in or near to the proposed freight management facility, strategic route and early years route as shown on the plan provided.



Registered Office  
Anglian Water Services Ltd  
Lancaster House, Lancaster Way,  
Ermine Business Park, Huntingdon,  
Cambridgeshire. PE29 6XU  
Registered in England  
No. 2366656.

**an AWG Company**

We would expect any requests for alteration or removal of sewers to be conducted in accordance with the Water Industry Act 1991. The design of the above scheme including the preferred location of the associated off-site development is to be refined further by Bradwell Power Generation Limited. Therefore, the extent to which existing sewers would be affected will need to be defined with the assistance of Anglian Water.

In addition, sewage pumping stations and outfalls appear to be located within the development boundary as identified in the Scoping Report. We would welcome further discussions in relation to the implication of the above project for the existing sewers, pumping stations, outfalls and water recycling centres.

It is therefore suggested that the Environmental Statement should include reference to the foul sewerage network and associated pumping stations, outfalls and water recycling centres where relevant. The location of our existing infrastructure and assets (including both underground infrastructure and aboveground assets such as pumping stations and water recycling centres) are available to view at the following address:

<http://www.digdat.co.uk/>

## 16. Flood Risk and Drainage

Reference is made to the risks of flooding from the above project from coastal, river, surface water, groundwater, reservoirs and sewer flooding. Anglian Water is responsible for managing the risks of flooding from foul water, surface water or combined water sewer systems. At this stage it is unclear whether there is a requirement for a connection(s) to the public sewerage network for the above site or as part of the construction phase.

Consideration should be given to all potential sources of flooding including sewer flooding for both the main development site and associated development. In the event there is a requirement to make connection(s) to the public sewerage network we would ask that this be considered as part of the Flood Risk Assessment.

The report states that the risk of sewer flooding for the main development site is negligible as it is a largely rural site. Reference is also made to all sources of flood risk including sewer flooding being assessed in more detail when the specific locations for off-site associated development are known.

We would suggest that reference is made to any relevant records in Anglian Water's sewer flooding register as well as other information relating to flood risk as outlined in the report. Information can be obtained by contacting Anglian Water's Pre-Development Team. The e-mail address for this team is as follows: ([planningliasion@anglianwater.co.uk](mailto:planningliasion@anglianwater.co.uk)).

Should you have any queries relating to this response please let me know.

Yours sincerely



**Stewart Patience**  
**Spatial Planning Manager, MRTPI**

**From:** [David Gill](#)  
**To:** [BradwellB](#)  
**Subject:** RE: EN010111- Bradwell B new nuclear power station - EIA Scoping Notification and Consultation  
**Date:** 26 October 2020 13:33:43  
**Attachments:** [image001.png](#)  
[image003.jpg](#)

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Dear Marnie Wood

I refer to your letter dated 9 October 2020, consulting this Council on a Scoping notification for the proposed development of a new nuclear power station at Bradwell, Essex.

I write to inform you that this Council has no comments to make on this matter.

I hope this information is of assistance.

Yours sincerely,

**David Gill BSc. (Hons) MRTPI**

Principal Planning Officer Development Control Planning Services Growth Basildon Borough Council

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**From:** BradwellB [<mailto:BradwellB@planninginspectorate.gov.uk>]

**Sent:** 09 October 2020 17:28

**Subject:** EN010111- Bradwell B new nuclear power station - EIA Scoping Notification and Consultation

Dear Sir/Madam

Please see the attached correspondence on the proposed Bradwell B new nuclear power station.

Please note that the deadline for consultation responses is 7 November 2020 and is a statutory requirement that cannot be extended.

Kind regards.

Alison L Down

EIA Advisor

Environmental Services

Direct Line: 0303 444 5039

Helpline: 0303 444 5000

Email: [alison.down@planninginspectorate.gov.uk](mailto:alison.down@planninginspectorate.gov.uk)



Web: <https://infrastructure.planninginspectorate.gov.uk/> (National Infrastructure Planning)  
Web: [www.gov.uk/government/organisations/planning-inspectorate](http://www.gov.uk/government/organisations/planning-inspectorate) (The Planning Inspectorate)

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## Response to the Application from Bradwell Power Generation Company for an Order granting Development Consent for the Bradwell B New Nuclear Power Station.

Although the site has been identified as suitable for the development, the Parish Council feel the adverse effects for our village far outweigh any benefits.

Bradwell on Sea Parish Council are opposed to the BRB development for the following reasons:

### Community Impacts

1. The size and scale of this proposed development (over 500 hectares) would dwarf the village and turn the area into an industrial zone. It would be over ten times the size of the decommissioned Bradwell A.
2. This development would have a devastating impact on every part of the village. The aspect and approach to this special area from all directions would be ruined by a huge construction that vertically imposes on river views and coastal paths.
3. The special character of this village comes from its history, mix of buildings and village open spaces. The proximity of the proposed development would destroy its essential familiarity. It is known for the spirituality of St Peter's chapel and the tranquillity of the Othona community, both of which would sit on the edge of the construction site.
4. The current population of the village of 850 residents would increase by at least 4,500. The envisaged workforce would increase to about 9100 at the peak of construction.
5. The workers accommodation would cover an area greater than the original power station. It is proposed to provide purpose-built accommodation, some as high as six storeys and caravan sites for this workforce plus 500 permanent new homes.  
*See Scoping report p47 3.65, p48 3.66, p65 4.15.*
6. The suggested employment opportunities for local people are not relevant as 'local' encompasses an area of a 90-minute drive, i.e. Cambridge or Watford. Local unemployment at the present time is low.
7. The infrastructure of the village cannot support this huge increase in population. The destruction of a quiet rural way of life will affect the resident's mental wellbeing and health.
8. The Parish Council have considerable concerns with regard to the anti- social behaviour likely to occur with this huge influx of a mostly young male workforce who are living away from family. Research has shown with the increase in workforce at Sizewell, Suffolk, that an increase in alcohol, drug abuse and sexual exploitation is likely.
9. There will be considerable noise pollution. The scoping report quotes a background noise near the existing windfarm of 20-30 DB.  
The noise throughout the village, including outside the school and care home from the investigative works for the Bradwell B Power Station could be in the region of 60 -70 dB for a duration of ten hours a day, six days a week.
10. There will be traffic pollution. It is estimated there would be 600-700 two way HGV vehicle movements per day plus worker buses, contractors and private vehicles.  
Routes A and B along the B1018 would be wholly unsuitable for the huge increase in traffic required for a development of this nature. All of the options for Strategic Route 2 would destroy some of the most environmentally sensitive and beautiful parts of the Dengie Peninsular.

### The Ecology of the Area

This coastline is a very special marine environment

The Parish Council have concerns regarding the transparency of information in the published ecological reports which were inadequate and out of date. The recently designated Marine Conservation Zones (MCZ) were specifically set up to protect the rare Short-snouted Seahorse *Hippocampus hippocampus*

which is found in the waters off Bradwell. There are many protected species of mammals, bats and insects to be found along the shoreline and inland which must be conserved.

1. The development would destroy much of the areas Salt Marsh and Mud Flats.
2. The construction would impact on the Dengie National Nature Reserve a RAMSAR site renowned for its overwintering birds.
3. The Bradwell Shell Bank and The Marine Conservation zone are SSSI sites.
4. A possible rise in water temperature from the borehole excavations would affect the breeding of fish and other aquatic life.
5. Destruction of habitat and species in Weymark's river.
6. Resident/migratory wildfowl overwinter on the Blackwater shoreline.
7. The destruction of woodland, wildflower meadows and hedgerows for the building of new roads.

Scoping Report p 31 3.3.3. states: The peninsula is formed by the River Blackwater Estuary to the north and the River Crouch to the south. Large parts of the Dengie Peninsula are covered by international nature designations, whilst parts of the Estuary are covered by European and national designations.

### The Impacts on the Heritage and Historical Value of the Village

Bradwell has more listed buildings and buildings of historic interest than any other village in the district. The construction of the power station would mean that some of these buildings would be destroyed and others have new roads passing front doors and cutting through their gardens.

Bradwell on Sea's strategic coastal position led to a landing ground being developed in 1941. During WWII the Bradwell Bay airfield became very busy and famous as a night fighter base. It played an important role in defending this country and has a huge amount of interest from many associations across the country and from abroad.

The building of the Bradwell B power station would destroy this historical monument to men who died defending their country.

#### Scoping Report P32 3.3.6

1. Tourism is becoming an important income for local people. Birdwatchers, naturalists and sailors are some of the many visitors.
2. Every day visitors come to look at the memorial, some to research family history and some just out of interest for their heritage.
3. This Airfield is unique, with much interest still remaining. The main runway is intact as is the perimeter track. The control tower (watch tower) still remains and four blister hangars are still used. These are rare and important military buildings. The secret underground Station HQ can still be found hidden along the hedge line.
4. Many of these artefacts are listed as heritage features and once lost cannot be replaced

Finally, the Bradwell on Sea Parish Council asks why destroy our village, our ecology, our heritage when there will be no need for the vast quantities of electricity produced? Another nuclear power station on the size and scale of Bradwell A, would have been controversial to many, but certainly not have resulted in the wholesale devastation of our community and environment that the current proposals entail...

This is not a 'green' form of energy. During the years of construction, many million tons of carbon will have been released into the atmosphere. It is much more expensive than renewable sources of energy to install and run. It has a huge cost at the end of its life both financially and environmentally. National Grid figures suggest that in the future the electricity produced will not be needed.



Marnie Woods  
Senior EIA Advisor  
Planning Inspectorate  
Sent to: BradwellB@planninginspectorate.gov.uk

Date: 2 November 2020  
Your reference: EN010111\_000041\_201009  
Our reference: 20/01494/EIA

Dear Marnie

**Planning Act 2008 (as amended) and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) Regulations 10 & 11 Application by Bradwell Power Generation Company Ltd (the Applicant) for an Order granting Development Consent for the Bradwell B New Nuclear Power Station (the Proposed Development)**

Thank you for your letter of 9 October 2020 concerning the submission of the scoping request relating to the above.

I confirm on behalf of Brentwood Borough Council that it has no comments to make.

Yours sincerely

Mike Ovenden  
Associate Planning Consultant  
For Brentwood Borough Council



**Regeneration and Neighbourhoods**  
**Castle Point Borough Council**  
Council Offices, Kiln Road,  
Thundersley, Benfleet  
Essex SS7 1TF  
Tel: 01268 882200

By email: [bradwellb@planninginspectorate.gov.uk](mailto:bradwellb@planninginspectorate.gov.uk)

27<sup>th</sup> October 2020

Dear Marnie Wood,

**Response of Castle Point Borough Council to the Scoping Consultation for Bradwell B (Project Reference EN010111)**

I refer to your letter of the 9 October 2020 seeking the views of Castle Point Borough Council regarding the scope of Environmental Impact Assessment of the aforementioned DCO proposal.

The Scoping Report has been reviewed, and Castle Point Borough Council would wish to submit the following observations:

Transport – Chapter 6: It is noted that it is the intent of the applicants to use the County-wide VISUM model to determine the impacts of the proposal on the Strategic Road Network. However, the extent of the study area as shown on figure 6.1 excludes the Strategic Road Network to the south of the County of Essex including the southern portion of the A130, the A127 and the A13. It is not therefore clear as to if and how the impacts of the proposal on these parts of the Strategic Road Network will be assessed. However, there are concerns that increased freight and increased vehicle movements generated by this scheme could have an impact. These are busy routes which already experience peak time congestion issues. Furthermore, part of the A127 are under ministerial direction due to air quality exceedance issues. Castle Point Borough Council is of the view that the scope of the assessment of the Strategic Road Network should be extended to include a wider area, including those routes mentioned.

Air Quality – Chapter 8: It is considered that the scope of the Air Quality Assessment for road traffic emissions should be extended to cover those parts of the A127 already identified as experiencing Air Quality exceedance issues, given that this forms part of the wider Strategic Road Network for this proposal.

Socio-economics – Chapter 10: It is noted that the travel to work area being assessed as part of this proposal is a 60-minute travel zone. This will cover a wider area than Maldon District, and therefore the Local Plans of a wider area should form part of the baseline for this section (para 10.5.14).

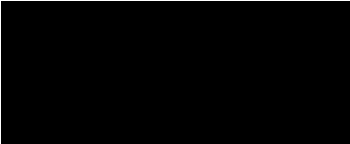
It is also noted that the East of England Forecasting Model (EEFM) forms part of the baseline evidence. This is welcomed as it is widely used across Essex to determine future economic growth scenarios and has been used to understand the demand for housing arising from economic activity as an alternative scenario in Strategic Housing Market Assessments. It would be useful if the scope of the socio-economic work for this proposal included outputs which were compatible with the EEFM, or included a scenario generated in the EEFM so that those undertaking planning of homes and employment spaces within the districts and boroughs of Essex could ensure that those plans reflect the proposals for this site.

Major Accidents and Disasters – Chapter 13: It is noted that study areas for this section have been identified using radial distances. This aligns with the COMAH Safety Report Assessment Manual in most cases, although not for Marine receptors, which is based on professional judgement. Castle Point notes

the guidance which has been used but would query whether there is a need to factor prevailing wind and tidal movements in determining the spatial scope of the consideration of major hazards and disasters, as these could increase or decrease risk depending on strength and direction. There are protected habitats along the Essex Coast including Special Protection Areas, which are located just outside the identified study area, and further information about whether these should be included or excluded from this assessment is appropriate given their important status.

I trust this response is of assistance to you. If you have any queries in relation to this matter please contact Amanda Parrott – Planning Policy Team Leader at [aparrott@castlepoint.gov.uk](mailto:aparrott@castlepoint.gov.uk).

Yours sincerely,



**Ian Butt**

*Head of Place and Policy*

**DECISION MADE BY THE DIRECTOR OF SUSTAINABLE COMMUNITIES**

<b>Application No</b>	:	20/01663/OBS3 Observation Request from Adj. Borough 3
<b>Location</b>	:	Bradwell B Power Station Bradwell On Sea Essex
<b>Proposal</b>	:	<b>Scoping consultation for an application by Bradwell Power Generation Company Ltd (the Applicant) for an Order granting Development Consent for the Bradwell B New Nuclear Power Station (the Proposed Development)</b>
<b>Applicant</b>	:	Bradwell Power Generation Company Ltd
<b>Date Valid</b>	:	9th October 2020
<b>Development Type</b>	:	Consultations - CM/ ECC3/OBS (D91)
<b>Target Date</b>	:	29th October 2020

The boundary of Chelmsford City does not lie adjacent to the main development site. The observations contained within this consultation response are therefore focussed on potential strategic impacts (eg socio-economic, transport) and the potential impacts and issues arising from the associated development.

**General Comments**

At this stage the applicant is still exploring options and locations for the off-site Associated Development (described in 4.5.1), the Transport Strategy and for any potential new rail infrastructure (noted in 3.1.9). Once this process is complete, the extent of the works/options should be defined, consulted on and subject to a further updated/subsequent scoping opinion to ensure that the entirety of the development, both on and off-site is included in the scoping process, and to allow a robust assessment of combined and cumulative impacts. At this stage it is not possible to have certainty about the environmental baseline and key issues for the associated development areas. This is particularly the case in the absence of traffic modelling and the fact that the modal split and the amount of workforce and construction materials is unknown.

CCC requested in its stage one consultation response that further work is undertaken to explore and assess road and junction improvements including a potential bypass around SWF and an alternative to the proposed early years construction traffic route via Danbury. These should be fully explored, consulted on and form part of the formal scoping report.

The formal scoping report should include a Non-Technical Summary (NTS).

The Scoping Report appears to have a number of key changes compared with the Stage 1 Consultation document but does not appear to have responded to all of CCC's previously issued comments – see



responses below for more information. Clarification would be welcomed on how the applicant intends to respond to CCC's previous comments, and all the key changes made in the scoping report. CCC's stage 1 consultation response is included at Appendix A.

### Comments on Consultation and Engagement Tables

Section	Comment
<b>6 Transport</b>	
6.3 Consultation and Engagement	
Table 6.4 Summary of consultation responses by theme	
Transport Strategy	Suggest reference is made to CCC stage 1 comments which included: <ul style="list-style-type: none"> <li>the use of marine and / or rail transport over road transport for movement of freight is not strong enough to ensure a significant modal shift</li> <li>acknowledge new residential development allocated in Danbury, the Danbury AQMA and the constrained nature of the A414 through Danbury</li> <li>inadequate identification of transport mitigations through and west of SWF and the housing allocation north of SWF</li> </ul>
Mitigation	Suggest reference is made to CCC stage 1 comments which included: <ul style="list-style-type: none"> <li>lack of consideration for highways mitigation around SWF such as a new bypass</li> <li>lack of a mitigation strategy to reduce carbon emissions generated through the different phases of the project</li> </ul>
Cumulative effects	Suggest reference is made to CCC stage 1 comments which included: <ul style="list-style-type: none"> <li>Unclear whether other proposed developments have been considered including strategic development north of SWF, new housing growth in Danbury and new National Grid substation</li> </ul>
<b>7 Noise and vibration</b>	
Table 7.3 Technical engagement. Consultee MDC, CCC and ECC	Suggest reference is made to CCC comments submitted post workshop raising issues related to the type of diffusion tube monitoring to be used and the detail for assessing ground-borne or airborne noise & vibration from HGV on traffic routes away from the development site, and on local SSSI/Ramsar sites.
Table 7.4 Stage one consultation comments	Suggest reference is made to CCC stage 1 comments which refers to noise and vibration impacts on existing and new residential properties and other uses along the B102 and A132 around SWF etc, both from freight and construction worker traffic.
<b>8 Air quality</b>	
Table 8.5 Stage 1 consultation comments	Suggest reference is made to CCC stage 1 comments which requests detailed evidence of air quality impacts from increased traffic from freight and construction workers, especially via SWF.
<b>10 Socio-Economics</b>	
10.3 Technical engagement	Suggest reference is made to issues raised by CCC post EIA workshops including: <ul style="list-style-type: none"> <li>impact on the private rented sector in terms of the availability and affordability, vacancy rates in Chelmsford, assumptions made about local housing market and queries regarding the Gravity Model</li> <li>assessing potential impacts on community services in SWF and Danbury</li> <li>assessing potential health impacts on Chelmsford residents caused by</li> </ul>

	<p>increased traffic as well as the new Park and Ride/Freight Management Facilities such as increased noise levels, air pollution and vibration</p> <ul style="list-style-type: none"> <li>potential impacts on recreational facilities in a wider area where workers may choose to live or travel to e.g. SWF, River Crouch and Roach Estuaries and the SSSIs in and around Danbury</li> </ul>
10.4 Stage 1 consultation comments	Suggest reference is made to CCC stage 1 concerns regarding the potential impact of an additional workforce on its local housing market and tourism.
<b>12 Climate Change</b>	
12.6 Stage 1 consultation comments	Suggest reference is made to CCC stage 1 concerns regarding the lack of a strategy to reduce the carbon emissions generated through the different phases of the project, a mitigation strategy and a method of monitoring and reporting on the emissions.
<b>15 Water environment</b>	
15.4 Stage One Consultation Responses	Suggest reference is made to CCC stage 1 comments regarding potential impacts of the proposed park & ride facilities on the Chelmer and Blackwater Navigation Conservation Area.
<b>21 Recreation</b>	
Table 21.3 Stage One Consultation comments	Suggest reference is made to CCC stage 1 comments regarding the possibility of enhancing community facilities in particular at SWF, such as sport and recreation facilities for campus residents in order to provide benefit and legacy to the local community.
<b>22 Historic environment</b>	
Table 22.3 Technical Engagement	Suggest reference is made to CCC post workshop comments regarding assessing potential heritage impacts of the access, depot and park and ride facilities via a detailed heritage assessment to identify all heritage assets likely to be impacted upon by the proposals, including their settings. This should include all designated and non-designated heritage assets within 0.5km of the two highway routes and 2km of the park and ride and depot sites. This work should be in accordance with Historic England's guidance on setting (GPA3), including recommendations for mitigating any adverse impacts. This work should be done at an early stage to inform site selection.
<b>23 Biodiversity</b>	
Table 23.3 Technical Engagement	Suggest reference is made to CCC post workshop comments requesting site level ecological assessments for habitats and species once the associated development sites have been confirmed, and that the study area for the remote sensing requires justification as it appears arbitrary and it is unclear why land to the north and south which fall outside CCC's area has not been included since it appears to be within the expected zone of influence.
Table 23.4 Stage One Consultation Comments	Suggest reference is made to CCC concerns regarding impact of the proposed park and ride sites on existing habitats and designated sites and that CCC expects robust modelling and environmental assessments before forming a view on preferred options.

### Comments on Legislation, Policy and Technical Guidance Tables

Under Local Policy, it is suggested that, for completeness and consistency, some additional policies references are included from its Chelmsford Local Plan adopted in May 2020.

<b>6.1 Transport</b>
Strategic Policy S1 Spatial Principles Strategic Policy S7 Spatial Strategy Strategic Policy S9 Infrastructure Requirements.
<b>7.1 Noise and vibration</b>
Clarify that policy referred to is Policy DM29.
<b>10.2 Socio-Economics</b>
Strategic Policy S10 Securing Infrastructure and Impact Mitigation Strategic Policy S2 Addressing climate change and flood risk Strategic Policy S7 Spatial Strategy Strategic Priority 3 – Fostering growth and investment and providing new jobs Strategic Priority 8 – Creating well designed and attractive places and promoting healthy communities.
<b>11.1 Human Health</b>
Strategic Policy S2 Addressing climate change and flood risk Strategic priority 8 – Creating well designed and attractive places, and promoting healthy communities Policy DM24 Design and place shaping principles in major developments DM29 Protecting living and working environments.
<b>12.2 Climate Change</b>
Emerging CCC Making Places Supplementary Planning Document.
<b>16.1 Flood risk and drainage</b>
DM18 Flooding/SUDS.
<b>17.1 Coastal geomorphology and hydrodynamics</b>
Strategic Policy S2 Addressing climate change and flood risk.
<b>20.1 Landscape and visual amenity</b>
Strategic Policy S1 Spatial Principles DM6 New buildings in the Green Belt DM7 New buildings and structures in the Green Wedge DM8 New buildings and structures in the rural area.
<b>23.1 Biodiversity</b>
The reference to NE1 should be changed to DM16 Ecology and biodiversity. Strategic Policy S4 Conserving and enhancing the natural environment Strategic Priority 7 Conserving and enhancing the natural and historic environment and the Green Belt.

### Local Planning Policy (Section 2)

Para 2.3.12 – This section should refer to the emerging South East Inshore Marine Plan being prepared by the Marine Management Organisation which will form part of the Development Plan for CCC’s administrative area, and to other emerging CCC local planning guidance that is expected to be adopted in early 2021 namely the Making Places Supplementary Planning Document (SPD) and Planning Obligations SPD. More information is available at:

<https://www.chelmsford.gov.uk/planning-and-building-control/planning-policy-and-new-local-plan/new-local-plan/planning-policy-consultations/supplementary-planning-document-consultations/>

### Park and ride facilities (Section 3)

Para. 3.6.43 and Figure 3.5 - The scoping report states that three search areas for park and ride facilities have been identified - South Woodham Ferrers (car parking for up to 3,250 spaces), Maldon (car parking for up to 2,500 spaces) and/or Chelmsford (car parking for up to 2,600 spaces). The stage 1 consultation identifies six search areas, with one large site capable of accommodating around 1,600 spaces supported by potentially one or more smaller facilities. There has been no discussion, agreement or consultation with CCC on the three revised search areas for park and ride facilities to be assessed in the scoping report, why these have been identified and alternative discounted. It is considered that the proposals should be developed following agreement of the Transport Strategy, consulted on and then rescoped alongside alternative search areas for park and ride facilities.

### **Freight management facilities (Section 3)**

Para. 3.6.29 and Figure 3.6 - Freight management facilities - The scoping report states that there would be one or more freight management facilities, located within the search areas identified in Figure 3.6 at South Woodham Ferrers and/or in the vicinity of Latchingdon. The stage 1 consultation refers to three search areas corresponding to the park and ride facilities. There has been no discussion, agreement or consultation with CCC on the two revised search areas for freight management facilities to be assessed in the scoping report, why these have been identified and alternatives discounted. It is considered that the proposals should be developed following agreement of the Transport Strategy, consulted on and then rescoped alongside alternative search areas for freight management facilities.

### **Cumulative assessment (Section 5.5)**

Para. 5.5.1 - The commitment to assessing the cumulative effects of the Bradwell B project with other existing and/or approved projects is welcomed. These should be specified in the scoping report and should include the Lower Thames Crossing, strategic residential development North of SWF and the creation of a new National Grid Sub-Station to serve the Bradwell B development.

### **Transport (Section 6)**

Para. 3.6.22 – It is considered unclear why up to 1,500 vehicle spaces is being used in the scoping report for the on-site construction car park and what alternatives have been considered.

Para. 3.6.49 – It is considered that the EIA scoping should give greater consideration to the potential transport impacts and issues associated with the operational phase of the development.

Para. 3.3.14-15 – The descriptions of the existing rail network should refer to the proposed new rail station in North East Chelmsford due to open within early stages of the Bradwell B construction timetable, and the constraints of any potential use of Chelmsford train station and Brook Street Goods Yard and/or any potential new rail freight interchanges in Chelmsford City for the movement of rail freight. This would involve freight being transferred into HGVs and hauled for the remainder of the route to site by road which is considered wholly inappropriate on city centre and local roads.

Para. 6.5.34 - Western Area - The A132 and B1012 descriptions of the western area of the local highway network should make reference to the new strategic housing and employment-led development north of SWF and the B1012 which is allocated in the Chelmsford Local Plan adopted in May 2036. This development is expected to require road and junction highway improvements along the B1012, Ferrers Road and Rettendon Turnpike, and the A132 and local junctions between the Town and the A130. This allocation is expected to be constructed by the early-mid 2030s and a site masterplan is in preparation. This process is currently exploring active residential frontages along Burnham Road, reducing the speed limit along the B1012 and improving connectivity to the existing town to the south, for example through the provision of additional multi-user crossings along the B1012. The scoping report should fully recognise this allocation and

consider the potential significant impacts of the proposed Bradwell B development on it including on the creation of safe multi-user crossing points, severance issues between the existing town and its services, the new development areas and its facilities, and place-making aspirations to ensure the new development creates a well-connected, seamless and well-designed urban extension to the existing town. The A414 description should also note that the A414 through the centre of Danbury is constrained due to its undulating and windy nature resulting in slow-moving vehicles and that there is also an AQMA along the early years construction route proposed in the stage 1 consultation. Para. 8.5.3 only refers to this AQMA in the context of it being 22km from the main development site.

Para. 6.5.43 - Planned further surveys and studies - The commitment to preparing a number of further transport surveys and studies to inform the assessment is welcomed. A number of these surveys are ongoing or proposed for late 2020 or early 2021 and as such it is considered that a full assessment of transport impacts of the proposed development cannot be made until results of additional surveys have been completed and verified. There is also a concern that the surveys might be carried out during periods when the Country is in lockdown and therefore the results would not be representative of the true situation. Surveys should only be carried out when conditions have returned back to normal or as near to pre-pandemic conditions as possible. When surveys have been completed the extent of the road and junction improvements works should be defined, consulted on and rescope if necessary. The scoping report should also make reference to existing published traffic modelling evidence prepared for the Maldon District Council and CCC Local Plans which show that several roads and junctions along the early years 'in and out routing loop' for HGVs through Danbury and SWF and then during the peak construction period through SWF are already heavily trafficked and operating at capacity at peak times.

Para. 6.6.2 - Proposed Approach to the Assessment - The applicant is still reviewing the role that rail can play in the Transport Strategy and the extent to which this could reduce the need for the road and marine infrastructure identified elsewhere in this chapter. It is considered that rail should complement marine, not be instead of. If new rail infrastructure forms part of the Project, the extent of the works should be defined, consulted on and rescope if necessary.

Para. 3.6.29 - Highway improvements during early years - The scoping report states that there are two preferred potential HGV route options (Route A and B) and that the route during the early years could change, subject to the potential for improvements to be delivered to the existing road network outside the DCO consent process. The stage 1 consultation only refers to a proposal being considered to create an 'in and out routing loop' for HGVs (Route A). There has been no discussion or agreement with CCC on whether Routes A or B should be preferred options. It is considered that the proposals should be developed following agreement of the Transport Strategy, consulted on and then rescope alongside alternative HGV transport methods, route improvements and options. This should include more detail on how long the early years routing arrangement could be in place for and the transitional arrangements for the peak construction period in order for potential impacts to be fully assessed.

Para. 6.6.57 - Assessment years - The scoping report states that the Environmental Statement will assess the baseline, future baseline and future baseline + development scenarios for road transport only and that the year(s) to be used are yet to be defined. It is considered that a full assessment of impacts cannot be made until results of modelling work have been completed and verified. CCC request to be involved in discussions to agree the future baselines and scenarios to be tested, and when the modelling work has been completed for the off-site Associated Development, the scoping opinion may need to be updated.

Para.6.8.1 – In line with CCC's stage 1 consultation response, that range of potential mitigations will require further consideration and will be informed by the amount of worker and construction material traffic and the Transport Strategy which remain to be defined.

## **Noise and Vibration (Section 7)**

Noise and vibration from road traffic has been identified as a likely significant source of noise. The receptor group in table 7.20 of the document shows that the receptors and locations for assessment have not yet been confirmed. CCC have a concern regarding the number of heavy goods vehicle movements that will be taking place through the Chelmsford City Council area and the effect this will have in respect of noise. It is suggested that an area in particular that should be included for noise/vibration assessment is the A414 Main Road in Danbury, through the AQMA area, where some buildings are within 1m of the kerb of the carriageway.

### **Air Quality (Section 8)**

Chelmsford City Council is concerned over a potential significant increase in traffic including HGVs through the Danbury AQMA and subsequent negative effect on air quality where there are already exceedances of the Air Quality Objectives. There is also concern that significant traffic routed through South Woodham Ferrers could worsen local air quality.

Covid-19 related reduction of traffic volumes and consequently air pollution may be evident over (at least) the first part of the proposed air quality monitoring period. Therefore caution should be exercised where predicted pollution levels within the Danbury AQMA (and elsewhere) are significantly lower than previously measured concentrations. For the dispersion modelling, pre-Covid traffic counts and air quality monitoring data should be assessed as to whether they could provide a more representative baseline than from current monitoring.

The number of traffic movements and routes from Park and Ride sites or by direct construction workers trips have not yet been defined.

Chelmsford City Council have requested that the preparation and laboratory to be used for the proposed diffusion tube monitoring regime is to be the same as used by Chelmsford and Maldon Councils which will feed into the dispersion modelling. However, the Volume 1 Scoping Report identifies that a different laboratory will be used. This is concerning and potentially imports error into the air quality modelling.

Locations for local noise/vibration monitoring along main transport routes away from the development site have not yet been considered. Within the Danbury AQMA there are old buildings within 1m of the kerb of the A414 that could be affected by a significant increase in high sided HGV traffic.

No dust or particulate monitoring has been proposed for Danbury. Whilst the AQMA has been declared for NO<sub>2</sub> and particulate monitoring not essential, there could be increased deposition of particulate matter (in addition to nitrogen) within the nearby SSSIs and this would need to be quantified.

### **Socio Economics (Section 10)**

Now the documents refer to Covid-19, perhaps engaging with DWP to get statistics on claimant data and work coach engagement trends would give an idea on how sectors are affected by major disruptions and where gaps/need are strongest – and what is implemented to support the shift in demand.

Also projects such as [I-Construct](#) will help with devising training mechanisms to support skills development plans and workforce pipeline.

Engagement with Chelmsford College with potential to develop courses specific to all aspects of the build. They already offer construction courses and have a new construction centre being built <https://www.southeastlep.com/project/chelmsford-college-new-construction-centre/>

What other large construction projects will be happening in and around the county around the same time – will this affect the available workforce.

With Brexit there is a query whether overseas workers still be available to help fulfil skills shortages.

CCC request that the following economic development strategies should be added to the table at 10.2:

- Delivering Economic Growth in Chelmsford to 2036, dated January 2018
- Chelmsford Economic Strategy 2017
- Economic Renewal Plan and Activity Plan 2020/21

### **Climate Change (Section 12)**

The scoping report sets out a thorough assessment of how the development will quantify green house gas emissions, which includes those produced from construction of the development. The potential mitigation section is, however, limited. Efforts should be made to reduce the number of heavy goods vehicles using the roads to the site and the development should instead look to increase the use of marine and rail transport, which would help to reduce green house gas emissions.

### **Flood Risk and Drainage (Section 16)**

For the City Council, the main flood risk and drainage issues would relate to off-site associated development.

The methodology is sound and the document is thorough and well considered. Our only concern, and this is explicitly acknowledged in the document at Section 16.6 *Baseline Information*, that precise locations and details of the off-site development is not yet known at this stage (Figure 16.2). The potential for comment is therefore limited. However the approach to deal with this is made clear, namely to locate development in areas of lowest flood risk ie the sequential approach, and to mitigate where necessary. This is consistent with National Policy and we would support this.

This is a nationally important project and Nuclear power stations are controversial. There is an opportunity here for exemplar development that goes beyond meeting minimum policy requirements. Such an approach should be embedded within the project scope. For example, at Section 16.9 *Potential Mitigation* and Table 16.13 *Summary of likely embedded mitigation*, rather than simply state that there would be no loss of flood storage and nor any increase in flood risk ie neutral impact, it would be an excellent opportunity to show how this project would enhance, ie make positive change, to these issues.

### **Landscape and Visual Amenity (Section 20)**

Table 20.9 states sets out the planned further surveys and studies and states that there will be site visits with stakeholders to agree the final list of viewpoint locations. CCC would like to be consulted on viewpoint locations for off site development that will be located within Chelmsford City's area of administration once preferred sites have been identified. The City Council would also like views from Danbury east towards the Blackwater estuary to be considered as part of the main proposal LVIA.

The Strategic Growth Site to the north of South Woodham Ferrers should also be included in assessments of cumulative effects for off site facilities.

### **Recreation (Section 21)**

If the Park and ride site is located in SWF during the construction period there are concerns around access to leisure activities promoted via other projects/existing attractions, (such as Visit Essex short breaks and



accessing the coast, Marsh Farm Adventure park). Congestion on the main routes could easily deter visitors. In addition, there are concerns that the siting of a park and ride in SWF would mean that construction workers may use local tourist accommodation, which is limited in that area. This would, as a consequence, result in less hotel/tourist accommodation vacancies for potential visitors.

## **Historic Environment (Section 22)**

### ***Power Station***

The main development site is situated c.18km from the eastern most boundary of CCC, on the east side of the village of Danbury. In this location there is a theoretical visibility of the site from Danbury Hill and other high ground around Danbury. A view point is identified from Danbury Recreation Ground (VP35), would be subject to assessment. The cooling towers would be up to 60m high. Given the considerable distance of the site from Chelmsford's area any potential visibility would be so distant and fleeting it is unlikely any there would be any impacts on the setting of any of Chelmsford designated and non designated heritage assets. Assessment of VP35 is adequate. Likewise any other historic environment impacts, including the major incident 10km zone would be beyond Chelmsford's area, albeit in a catastrophic disaster the radiological influences could affect the historic environment of Chelmsford.

The assessment of impacts for on and off site work is premature, given the baseline heritage assessments have not been undertaken yet. This should be dealt with comprehensively when there is a full baseline assessment.

The development will clearly have considerable impacts on the historic environment of Maldon and Colchester, a matter for the borough councils, Historic England and other partners to consider.

### ***Haul Roads***

The project will generate a considerable number of highway movements, including HGV's. With a construction phase of 9-12 years, up to 10,600 workers and the associated need for materials and equipment. Two route options are proposed, with access through Chelmsford's area via the A414 through Danbury and/or through South Woodham Ferrers via the B1012 and A132.

The access route along the A414 through Danbury would pass through the Conservation Area, adjacent to many listed buildings (including 23 listed building close to the roadside along Main Road), Danbury Park Registered Park and Garden, and other non designated heritage assets. Intensification of this route with greater numbers of HGV's and associated works (highway alterations, signage, crossings etc) would potentially impact on the setting of the heritage assets and the character of the Conservation Area through noise, visual intrusion and vibration. The potential for impact damage and dirt migration would also need to be considered.

The route along the A132 has limited potential to impact on designated heritage assets depending on the nature of highway improvements sought, which are unclear at present.

### ***Park and Ride Facilities***

Park and ride facilities are proposed to serve the development, which covers three search areas:

- South Woodham Ferrers - car parking for up to 3,250 spaces;
- Maldon – car parking for up to 2,500 spaces; and/or



- Chelmsford – car parking for up to 2,600 spaces.

These sites would include car and minibus parking, together with associated buildings, fencing and ancillary facilities.

The Chelmsford site area includes a large number of designated and non designated heritage assets, including the historic villages of Sandon and Danbury (both Conservation Areas and groups of listed buildings), the Chelmer and Blackwater Navigation Conservation Area, Danbury Park Registered Park and Garden and other heritage assets. The landscape setting is important to a number sites, including the views to and from Danbury Hill , St Johns Church and Danbury Park.

The Rettendon search area includes a large area around the turnpike, which includes a number of designated and non designated heritage assets. The Churches of All Saints and St Mary's (both grade I listed) are prominent landmarks in the area and with extensive settings'. The area also has a number of historic farmhouses and farm buildings, including Rettendon Place (non designated heritage asset house and grade II listed granary), High House (grade II), Bear Hall (grade II) and Poplars Farm (grade II). The WWII GHQ defence line also passes north-south through the area, which includes a large number of pillboxes. To the south is the estuarine village of Battlesbridge (7 grade II buildings, Conservation Area and several non designated heritage assets).

It is anticipated that the sites would be in place for the construction phase with restoration of the site on completion, but there is also reference to the permanent retention of these sites.

The search area proposed is currently large with two extensive areas identified around the Rettendon interchange and between Sandon and Danbury. The criteria for site selection is not specified and there have been no detailed discussions with CCC regarding site selection.

The document specifies an assessment area of 1km from the sites, this should be extended to 2km to ensure all heritage assets are adequately assessed.

### ***Freight Management Facilities***

A freight management facility is also proposed to provide a lorry park for around 100 HGV's with associated facilities.

This site could be within the same search area as the Park and Ride location at Rettendon. The search area includes a large area around the turnpike, which includes a number of designated and non designated heritage assets. The Churches of All Saints and St Mary's (both grade I listed) are prominent landmarks in the area and with extensive settings'. The area also has a number of historic farmhouses and farm buildings, including Rettendon Place (non designated heritage asset house and grade II listed granary), High House (grade II), Bear Hall (grade II) and Poplars Farm (grade II). The WWII GHQ defence line also passes north-south through the area, which includes a large number of pillboxes. To the south is the estuarine village of Battlesbridge (7 grade II buildings, Conservation Area and several non designated heritage assets).

Again, the site area is large, the criteria for selection are not specified and there have been no detailed discussions with CCC. The heritage assessment area should be extended to 2km.

### ***Other matters***

It is unclear if the national grid serving the power station would need to be upgraded or if the existing infrastructure would be adequate. A new substation and associated works to connect to the grid are

identified, but the extent of the works to the wider grid are unclear. This would potentially be routed through Chelmsford area and needs to be fully understood and assessed.

Appendix 22B should include all designated and non designated heritage assets, including off site works.

### ***Heritage Conclusion***

The framework for assessment is adequate, but The EIA needs to be updated to give greater clarity about the selection of sites for the Park and Ride and depots sites. The search areas should be increased to 2km to ensure the setting of any heritage asset affected is sufficient. The assessment of impacts is premature given the baseline evidence is not in place yet. The Chelmsford Register of Buildings of Local Value does not cover all the areas affected at present so site assessment should be included to identify all non designated heritage assets which may be affected. The impact of the traffic and road upgrades, particularly through Danbury needs to be more fully assessed with the implications of associated works and the resultant potential for visual intrusion, change of character and physical damage assessed.

### **Biodiversity (Section 23)**

The identification of statutory designated sites and their qualifying features within the scoping report is welcomed. It is noted that a number of ecological surveys will be undertaken in 2020 and 2021 for the main development site and as such, it is considered that a full assessment of impacts cannot be made until results of additional surveys have been completed and verified.

Information for off-site Associated Development appears limited but the document does identify statutory and non-statutory designated sites within the Chelmsford district. When the baseline surveys for statutory and non-statutory designated sites have been completed for the off-site Associated Development together with additional surveys to identify for ecological impacts the opinion may need to be updated.

The document has an awareness of the Essex Coast Recreation, Disturbance and Avoidance Mitigation Strategy (RAMS) and identifies those statutory sites which form this. It is felt the document should refer to the Strategy more often and consider in-combination mitigation resulting from development in Chelmsford and the project. In table 23.12 it will be helpful to add a section on RAMS and the potential effects the project will have on delivering the Strategy – main development and off-site Associated Development - and how this feeds into the potential mitigation listed at 23.8.1.

## **APPENDIX A**

### **Chelmsford City Council Stage 1 Consultation Response**

Chelmsford City Council (CCC) thanks Bradwell Power Generation Company Limited (BRB) for the opportunity to comment on its initial proposals for a nuclear power station at Bradwell B.

#### About Chelmsford

1. Chelmsford is located at the heart of the county of Essex with a population of over 170,000. As England's newest city and the County Town, with a strong economy, good transport connections, high quality of life and attractive environment, it is already a major draw for employment, shopping, leisure and one of the best places to live in the United Kingdom (Annual National Halifax Quality of Life Surveys 2012-2014). Chelmsford is already delivering 1,000 new homes and 800 jobs every year, and over the coming decades it is forecast to be the major growth location for new homes and jobs in Essex. Along with the City of

Chelmsford, the Council's area includes the riverside town of South Woodham Ferrers and villages set within attractive countryside. Chelmsford's population is continuing to grow and is predicted to increase to around 199,000 by 2037 (ONS 2014 Sub National Population Projections). Chelmsford is located approximately 38 km to the west of the Bradwell B main development site and has good road and rail connections. Car ownership is high with high levels of vehicle movements. Cost of living is relatively high, and some workers live a significant distance from Chelmsford. Chelmsford has a mixed economy with a high number of jobs in the service sector, education and health, administration, manufacturing and construction. For more information about Chelmsford please refer to the Chelmsford Local Plan 2013-2036 available at <https://www.chelmsford.gov.uk/your-council/committees-and-meetings/calendar-of-meetings/?id=d8c1de9f-7fad-45c3-ad71-57d0f3caaf89>

### Summary of Consultation Response

2. Though in principle opposed to reliance on nuclear power if to be subsidised by Government, CCC recognises that National Planning Policy is now such as to enable this development subject to certain provisos (see "Principle of Development" points 7, 8 and 9 below).
3. In that light, therefore, this response provides a commitment for this Council to work proactively with BRB to identify and address all the effects of the development on CCC's administrative area and to maximise the positive impacts and to minimise the negative impacts that the project could bring.
4. CCC considers that a considerable number of issues need to be examined, tested and addressed before the stage 2 consultation to enable CCC and its communities to come to a considered view on the development proposals in so far as they affect this Council's area. At this stage CCC raises significant concerns and objections on a number of key aspects of the proposals, including:
  - The significant lack of recognition, consideration and information on the impacts of the project on CCC's area including on its local and strategic highway network, communities, environment and settlements;
  - The early years and peak construction transport strategy which focuses on utilising the existing highway through Danbury and South Woodham Ferrers (SWF) and which is considered wholly unsuitable;
  - The proposed modal split between marine, rail and road transport for freight which is considered too road-dominated;
  - The potential use of Chelmsford train station and Brook Street Goods Yard for the movement of rail freight which would involve HGVs travelling through the city centre and which is considered wholly unsuitable;
  - The scope and suitability of proposed highways transport improvements which are not evidence based;
  - The lack of consideration of the Danbury Air Quality Management Area (AQMA) and air quality and noise impacts of the proposals;
  - The suitability of proposed construction worker park and ride sites which are not evidence based;
  - The lack of adequate consideration of the new strategic housing and employment-led development north of SWF Urban Area and the B1012 and consideration of highways mitigations around the town, such as a SWF bypass;
  - The lack of consideration of the new allocated development in Danbury;
  - The suitability of proposed construction freight management facilities which are not evidence based;
  - The lack of identified highways interventions on CCC's local and strategic highways network in particular through and west of SWF;

- The potential significant negative impact of the proposals on the Essex coast designated Habitats Sites and the lack of detailed studies that any harm can be sufficiently mitigated: and
  - The lack of a strategy to reduce the carbon emissions generated through the different phases of the project, a mitigation strategy and a method of monitoring and reporting on the emissions.
5. Therefore, the response urges BRB to make available additional information and evidence to support its development proposals as quickly as possible and with the input from CCC as a key local stakeholder. The consultation also raises concerns about whether BRB has considered the cumulative effects of the Bradwell B developments alongside other proposed development within the area including the strategic development north of SWF, new housing growth in Danbury and the new National Grid sub-station required to export the electricity generated by the power station. Furthermore, the consultation response raises concerns about the effectiveness of the consultation during the Coronavirus pandemic and urges BRB to commit to undertaking additional pre-application stages of consultation to ensure all interested parties have the opportunity to get involved.
6. Notwithstanding the concerns or objections to key aspects of the development proposals, CCC's consultation response recognises a number of BRB's project aims and aspirations and recognises the benefits that the development could bring to Chelmsford and the wider region. These include:
- BRB's commitment to work with local stakeholders including local planning authorities to identify the effects of the project (including on businesses, services, local places and communities), to maximise the positive economic effects, to understand potential adverse effects so these can be avoided or mitigated, and to deliver a project that provides a positive legacy;
  - BRB's commitment to use sustainable transport modes for construction freight and workers as far as practicable to help reduce HGV traffic on local roads, including a potential 'rail and ride' bus service from key railway stations;
  - Implementation of permanent road and junction improvements to mitigate and minimise highways impacts;
  - Implementation of an Accommodation Strategy and potential Housing Fund to meet the demands of the development in terms of attracting and retaining the construction workforce and to minimise impacts on the local housing market;
  - An Employment, Skills and Education Strategy and a Jobs Service to develop a local skills base that can support the delivery of the Bradwell B Project;
  - An Asset Skills Enhancement and Capability (ASEC) Fund to support local skills providers to deliver appropriate training;
  - A Regional Skills Coordinator to provide a link between local providers, supply chain businesses and the Project;
  - Building on training initiatives already established working with the Local Enterprise Partnership, local colleges and private training providers;
  - Linking construction contractors with colleges to provide advance information on the jobs and skills that will be needed, so that training can be carried out in good time; and
  - Supply Chain Team and Supply Chain Portal partnering local business groups and the Project to assist local, regional and UK businesses in winning contracts for the supply of goods and services to deliver the Project.

### Specific Consultation Responses

#### Principle of Development

7. CCC acknowledges that National Policy Statement for Nuclear Power Generation, July 2011 (NPS EN-6) identifies Bradwell B as one of 8 potentially suitable sites for the deployment of a new nuclear power station in England & Wales before the end of 2025.
8. CCC declared a Climate Change and Ecological Emergency Action Plan in 2019 and supports the transition towards a low or zero carbon economy in support of climate change and sustainability. In addition, CCC strongly encourages the development as a whole to maximise opportunities to reduce its carbon footprint and support the transition to a zero-carbon economy (see points 14 and 19 below).
9. CCC notes that the Overarching National Policy Statement for Energy, July 2011 (NPS EN-1) also states that the Planning Inspectorate “must decide an application for energy infrastructure in accordance with the relevant National Policy Statements except to the extent it is satisfied that to do so would lead to the UK being in breach of its international obligations; be in breach of any statutory duty that applies to the Infrastructure Planning Committee (now undertaken by the Planning Inspectorate); be unlawful; result in adverse impacts from the development outweighing the benefits; or be contrary to regulations about how its decisions are to be taken.” Therefore, although the Bradwell B site is identified as potentially suitable within NPP EN-1 it does not prevent the adverse impacts being considered greater than the benefits, resulting in the Development Consent Order (DCO) being refused. As such, CCC is committed to working with BRB, as a key stakeholder, to identify and address all the effects of the development on CCC’s administrative area and to maximise the positive impacts and to minimise the negative impacts that the development could bring. Furthermore, CCC welcomes BRB’s commitment to engage with key stakeholders including local planning authorities on their proposals and evidence base and to build positive and trusted relationships. CCC wishes to be considered a key stakeholder alongside Maldon District Council (MDC) and Essex County Council (ECC) during this process.

#### Local Plan

10. The Chelmsford Local Plan 2013-2036 was adopted on 27 May 2020 and forms part of the statutory development plan for the CCC area. Policies in the plan will be relevant to the decision-making process for any associated site works proposed within CCC’s area such as construction worker park and ride sites and freight management facilities. CCC would also be responsible for discharging and monitoring relevant planning conditions of any associated development works within its area.
11. The Chelmsford Local Plan 2013-2036 also includes a development to the north of SWF which will provide a sustainable urban extension for around 1,000 homes, 1,000sqm of flexible business space and 1,900sqm for convenience retail. This is expected to be delivered between 2021 and 2035. A range of new community services and facilities including a potential new primary school, two early years and childcare nurseries, healthcare, open space, recreation facilities and neighbourhood centre will be provided on the site. These services and facilities will not only serve the new communities but are also expected to be easily accessible by walking, cycling and public transport to residents in the existing town directly to the south of the allocation. The development will also provide access by walking, cycling and public transport to facilities and services in the wider area including the railway station, town centre, and schools. This will include safe crossing points on Burnham Road to enable seamless integration with the existing settlement. As such, BRB is urged to have full regard to relevant policies and proposals contained within the Chelmsford Local Plan 2013-2036 and supplementary planning documents including Making Places and Planning Obligations when developing and testing its development options and proposals. BRB are also urged to have regard to the emerging site masterplan, SWF Neighbourhood Plan and Danbury Neighbourhood Plan, and to engage fully with the SWF Town Council, Danbury Parish Council and SWF and Danbury Neighbourhood Plan groups.

#### Level of Information

12. Whilst CCC recognises that this is the first stage of consultation, significant concerns are raised over the lack of detail, information and published evidence base provided to support the development proposals, in particular the absence of traffic modelling, a sufficiently developed transport strategy and environmental assessments. Considerable disappointment is raised over the lack of recognition and information in the stage 1 consultation on the impacts of the project on CCC's area including its communities, environment and settlements, particularly given the significant proposed construction traffic movements and associated development within this Council's area. CCC is also frustrated that BRB have not engaged with this Council before the launch of the consultation. Overall, it is not possible for CCC to adequately assess all the implications of the proposed development on its area, to rule out significant adverse impacts and to determine whether it will be possible to effectively mitigate, manage or compensate for the significant adverse impacts. As such, at this stage CCC raises concerns or objects to a number of key aspects of the proposals. These are set out within this consultation response.
13. CCC urge BRB to develop and share their evidence base as quickly as possible and to not defer any full details or studies until the DCO application stage. CCC also wishes to reserve the right to supplement its consultation response as more information and evidence becomes available. Furthermore, CCC urges BRB to fully acknowledge and investigate the impacts on this Council's area in future publications and consultation materials.

#### Climate Change

14. As noted earlier, CCC acknowledges that the Bradwell B development has the potential to contribute towards the transition to a low or zero carbon economy in support of climate change and sustainability. However, CCC considers that there is lack of information and strategy within the consultation. CCC urges BRB to develop and share a strategy to reduce the carbon emissions generated through the different phases of the project, a mitigation strategy and a method of monitoring and reporting on the emissions.

#### Electricity Transmission

15. CCC notes that a new connection will be required to export the electricity generated by the new power station to the National Grid. This additional infrastructure, directly related to the proposed power station, could also have significant impacts across a wide area, including the future of the high voltage powerlines that run to the north of the existing town of SWF. These are located within the area proposed for future strategic development including around 1,000 new dwellings, 1,000 sqm of employment space, a Neighbourhood Centre and potential new Primary School. CCC therefore ask that BRB work closely with National Grid and CCC to enable details on these proposals to be shared and assessed as quickly as possible and to ensure all proposals are aligned to enable cumulative impacts to be fully assessed and mitigated.

#### Main Development Site Proposals

16. As CCC does not lie adjacent to the main development site it is generally considered that the consideration of the site-specific impacts such as upon landscape and seascape, public access and recreation, historic environment, flood risk, ecology and lighting is deferred to the relevant consultees who are more appropriately placed to respond. These include ECC, MDC, the Environment Agency and Natural England.
17. CCC welcome the recognition that the proposed project would impact on an environmentally sensitive area as the main development site is within or close to a number of environmental designations including the Blackwater Estuary SSSI and Essex Estuaries SAC. However, CCC is concerned about the potential significant negative impact of the proposals on the Essex coast designated Habitats Sites and



the lack of detailed studies that any harm can be sufficiently mitigated. BRB is advised that more information on the key ecological constraints associated with the coastal and marine environment can be found in the Essex Coast Recreational Disturbance Avoidance and Mitigation Strategy (RAMS) Strategy Document. CCC agrees that recreational disturbance at these reserves is already an issue and it will be important for BRB to consider what additional impact the development could have alongside other relevant plans such as the proposed England Coast path and Essex Coast RAMS Strategy Document. Although the Bradwell B development is outside the scope of the Essex Coast RAMS, BRB are requested to involve the Essex Coast RAMS Steering Group on emerging proposals to mitigate the impacts of the development on protected sites. CCC would also like to be kept informed during the preparation of the Habitat Regulations Assessment which will assess the potential for adverse effects on the conservation objectives of the European Protected Sites resulting from the Bradwell B Project.

## Transport

18. Overall, CCC recognises in general terms the aims of the proposed transport strategy which include maximising the use of marine and/or rail transport over road transport for the movement of freight and promoting sustainable transport modes for Bradwell B construction workers and staff. However, as the emerging transport strategy is not fully formed and in the absence of the transport modelling evidence base, CCC considers that it is impossible to fully quantify the impact of the proposed transport strategy on CCC's administrative area and to satisfy itself that negative impacts can be effectively mitigated, managed or compensated. This will only be possible once BRB plans and its evidence base is more developed. CCC is also keen that any identified mitigations provide positive longer-term transport legacy improvements. CCC is however concerned that the use of marine and / or rail transport over road transport for movement of freight where "effective and deliverable within the Project timescales" is not strong enough to ensure a significant modal shift. CCC considers that this aim should instead be driven by ensuring the most appropriate strategy for the local and strategic highway network and local communities, rather than cost and time.
19. CCC is very concerned that BRB may be pursuing a more dominant road-led freight movement strategy and urges it to fully explore a strategy for moving freight by rail via upgrades to the Southminster branch line and via existing commercial port facilities located at Felixstowe, Harwich and Tilbury to increase its minimum target for marine freight movements to more than 50%. Based on the stage 1 consultation and available information, at this stage CCC strongly objects to any potential use of Chelmsford train station and Brook Street Goods Yard and/or any potential new rail freight interchanges in Chelmsford City for the movement of rail freight. This would involve freight being transferred into HGVs and hauled for the remainder of the route to site by road which is considered wholly inappropriate on city centre and local roads. CCC urge BRB to do all they can to reduce the traffic, particularly HGVs, on CCC's rural roads and that comprehensive, robust and timely evidence is provided to fully explain and justify the preferred approach. In order to move towards a low carbon future, sustainable transport and the use of rail and marine needs to be encouraged wherever possible over road during construction and operation of the site. Consideration should also be given to utilising electric or ultra-low emission freight vehicles and park and ride buses wherever possible.
20. CCC welcome the principle of Freight Management Facilities but at this stage CCC cannot be assured that these options would not have adverse impacts on traffic flows on the local highway network including along the A132 and B1012. CCC also has concerns about other potential negative impacts including on the landscape and viewpoints, openness of the Green Belt and loss of existing habitat and how they could be effectively mitigated. CCC will expect to see robust traffic modelling and other environmental assessment information before forming a view on which of the options could be preferable or if other sites need to be considered. CCC also request clarification on how many HGVs they would provide space for. CCC welcome the provision of temporary accommodation for 4,500 workers close to the site to reduce daily traffic to and from the site. However, this figure is not supported by adequate evidence and

CCC would like to understand whether additional accommodation could be provided on site to reduce the impact on the road network further.

21. As already noted, the absence of a more developed transport strategy and any transport evidence base for the proposed development, it is not possible to be assured that any of the proposed highways improvements and potential mitigation, management and compensation measures will be effective. However, published traffic modelling evidence prepared for the MDC and CCC Local Plans show that several roads and junctions along the proposed early years 'in and out routing loop' for HGVs through Danbury and SWF and then during the peak construction period through SWF could be wholly unsuitable for both the movement of HGV traffic (being already heavily trafficked and forecast to be operating at capacity at peak times by 2036) as well as for any additional highways improvements or mitigations (which would be essential to mitigate the additional development traffic).
22. The A414 through the centre of Danbury is also constrained due to its undulating and windy nature resulting in slow-moving vehicles which would be worsened in combination with additional development freight and worker vehicles. Danbury also has an AQMA along the proposed early years construction route (see also point 26 below).
23. Several key junctions along the B1012 around the north of SWF, the A132 and Rettendon Turnpike have also been identified as requiring improvements to mitigate the planned development of 1,000 new homes and 1,000sqm on new employment floorspace north of SWF in the Chelmsford Local Plan 2013-2036. At this stage there is no evidence to confirm that the potential vehicle and freight movements (predicted between 500-700 two-way movements per day during the peak construction period during SWF) could be adequately accommodated on these roads.
24. CCC is extremely concerned that the consultation does not acknowledge new residential development allocated in Danbury and gives inadequate consideration to the new strategic housing and employment-led development north of SWF and the B1012. The development north of SWF is expected to require road and junction highway improvements along the B1012, Ferrers Road and Rettendon Turnpike, and the A132 and local junctions between the Town and the A130. This allocation is expected to be constructed by the early-mid 2030s and a site masterplan is in preparation. This process is currently exploring active residential frontages along Burnham Road, reducing the speed limit along the B1012 and improving connectivity to the existing town to the south, for example through the provision of additional multi-user crossings along the B1012. CCC is extremely concerned that the impact of between 500 – 700 HGV movements a day along this route will be wholly unacceptable, hinder the creation of safe multi-user crossing points and result in severance issues between the existing town and its services, and the new development areas and its facilities. CCC is also extremely concerned about the proposed traffic and potential highways works that may be proposed along the B1012 and the adverse impact this could have on its place-making aspirations to ensure the new development creates a well-connected, seamless and well-designed urban extension to the existing town.
25. BRB are requested to study published local transport evidence including ECC's A132 – A132 Route Based Strategy (RBS) and the transport evidence base prepared for the Maldon Local Development Plan and the Chelmsford Local Plan 2013-2036, in particular EX 023 – EX 029 available at (<https://www.chelmsford.gov.uk/planning-and-building-control/planning-policy-and-new-local-plan/new-local-plan/evidence-base/>). Based on the stage 1 consultation and available information, at this stage CCC strongly objects to the proposed early years and peak construction transport strategies which pass through Danbury and SWF.
26. CCC is particularly concerned that the consultation document does not acknowledge the Danbury AQMA designated in October 2018. CCC considers that the proposals could directly affect air quality within the Danbury AQMA and that the project Environmental Impact Assessment (EIA) must fully quantify the air



quality impact that the construction and operational phases will make to the AQMA in Danbury and onto the transport network around SWF. CCC expect that due consideration will be given to minimising the affect that freight movements, private car use, the proposed park and ride facilities and the routes to access the site will have on air quality. To support this aim, electrical vehicle charging points at park and ride sites and freight management facilities is positively encouraged.

27. In terms of transport to the site by construction workers, CCC would encourage the use of rail and other public transport including park and ride and a potential 'rail and ride' bus service from key railway stations to minimise travel by private car. CCC expect this to be fully explored as part of BRB's transport work and studies and before the stage 2 consultation. This should include provision of dedicated direct buses to pick up construction workers from local population centres such as Chelmsford, SWF and Danbury and from local rail stations such as at Southminster, Chelmsford and the new station in North East Chelmsford in order to encourage construction workers to make use of rail passenger services.
28. CCC welcome the principle of park & ride facilities for construction workers but is concerned about the impacts on the local and strategic highway network and in particular traffic flows and connections along the A132, A130, B1012, B1418, A414 and B1018 for each option. CCC also has concerns about adverse impacts on the landscape and viewpoints, existing habitat including woodland, trees and hedgerow, the historic environment including listed buildings, Sandon Conservation Area and the Chelmer and Blackwater Navigation Conservation Area, the openness of the Green Belt and the potential for impacts on Danbury Common SSSI, Blakes Wood and Lingwood Common SSSI and other designated environmental assets. CCC will expect to see comprehensive and robust evidence base studies including traffic modelling and environmental assessments before it can form a view on whether any of the options is preferable or if other sites need to be considered, and to determine whether the total number of car park spaces proposed to be accommodated is appropriate. BRB is also asked to consider the existing park and ride facility (Sandon Park & Ride) serving Chelmsford, located within search area 2 and is advised that Chelmsford already has two park and ride facilities, and more are planned in the Chelmsford Local Plan 2013-2036 to the north and west of Chelmsford.
29. CCC notes that the consultation document considers that the A132 and B1012 up to the section to Fambridge Road (junction with the B1018) could be subject to junction and highway upgrades and improvements, with the preference that works take place within the designated highway boundary. However, no specific details of potential mitigation measures are given along the section around SWF as the stage 1 main consultation document outlines for other sections of the road including to the east of SWF. There is no evidence to support the assumption that junction and highway upgrades and improvements will be viable and effective around SWF and why other measures proposed elsewhere on the route are not discussed for around SWF including a bypass. CCC also considers that there is also inadequate consideration of the number of key community and environmental sensitivities along the B1012 and A132 around SWF (as there is for other parts of the route), which include existing residential properties, a health centre and primary school and the proposed new residential properties and community uses to the north of SWF which may all be susceptible to noise, visual intrusion and/or air quality impacts.
30. CCC is extremely disappointed that the consultation document does not adequately identify transport mitigations through and west of SWF, including a potential northern bypass, or sufficiently consider the substantial new development allocated to the north of SWF and to be accessed from the B1012. More information about this development is contained with the Chelmsford Local Plan 2013-2036 and has been separately provided to BRB during the consultation process. CCC is very concerned about the potential additional congestion and for noise, vibration and air quality impacts from increased traffic from both the predicted freight and the construction worker traffic. It is specifically concerned about the impact on the B1012 through SWF. The A132 linking with the A130 also requires further consideration in view of the increase in HGV traffic. Traffic modelling alongside other environmental assessments will be

critical to enable CCC and other key stakeholders to fully understand the likely traffic impacts and the mitigation, management and compensation measures that will be required. CCC expect the traffic modelling to test a potential bypass around SWF's Urban Area (as defined in the Chelmsford Local Plan 2013-2036) which includes the allocated land to the north of the B1012.

31. The proposed project transport strategy must assess and provide appropriate mitigation and interventions for the full length of the A132/B1012/B1018 corridor from the Bradwell B site to the strategic road network at the A130. It is very disappointing to see the omission of the busiest part of the corridor to Bradwell on the B1012 and A132. CCC, in partnership with ECC, have carefully considered the traffic impact of its Local Plan allocation on this busy part of the corridor and expects BRB to do likewise which is likely to require significant additional interventions.
32. CCC wishes to be fully engaged in the preparation of all project baseline transport studies and modelling including discussions to define their scope, baseline assumptions and the data sets. This includes the development of a detailed freight management strategy, highway network condition surveys and traffic management and contingency/ emergency planning arrangements. CCC urge BRB to provide detailed evidence on the potential impacts and mitigations alongside impacts on allocations in the Chelmsford Local Plan 2013-2036 and any other potential developments. Detailed evidence should include assessments on traffic modelling, ecology impacts, landscape and visual impacts, as well as air quality, noise and safety impacts.
33. In the absence of any traffic modelling CCC is concerned that there will be additional significant detrimental impact on other parts of the local and wider road network that are not referred to in the consultation document. These may include congestion along the A130 and A12 caused by the increased numbers of HGVs resulting in longer journey times and delays; increased delays and queueing along the B1012 which could encourage more traffic along other local roads such as Ferrers Road, Woodham Road, Edwin's Hall Road and Willow Grove in SWF, and Hackmanns Lane and Bicknacre Road in Danbury; severance issues for local communities in SWF and Danbury and users of the rights of way network, and increased maintenance costs of highway infrastructure due to increased volume of HGV's. BRB is urged to ensure that the traffic modelling considers where further stress may be placed on the existing Chelmsford road network and communities as a result of the transport proposals to help identify all possible impacts and mitigation, management and compensation measures that will be required.
34. CCC is disappointed that aside from workers resident at the temporary workforce campus, no construction workers have been assumed to cycle to the main development site. CCC considers that SWF is within a suitable cycling distance of the site (if only by electric bike) and that the cycle route network should be improved to provide accessibility for the workforce of Bradwell B from the town.

#### Jobs and People

35. CCC welcomes BRB's aims, objectives and intentions around jobs and people which aim to limit any significant adverse economic and social impacts, while creating significant business, training and job opportunities for local and regional communities during construction and operational stage.
36. CCC also welcome that BRB is considering the impacts of a "worst-case scenario" of construction workforce numbers and await further information as quickly as possible on how appropriate mitigation can be put in place to accommodate them. CCC equally welcome that BRB recognises the wide range of impacts their development may have on services for the local community, including on the health system, emergency services and education.
37. CCC acknowledge that the development could bring significant benefits to local employment markets, local supply chains and for training and skills development. The impact of the predicted number of

construction workers on local housing markets, transport network and community facilities will be considerable, and much more work needs to be done to define and quantify the likely effects on jobs, skills, economy, people, businesses, accommodation, services and local places, to determine whether the aspirations are achievable or ambitious enough, to maximise local benefits and to avoid or manage adverse impacts.

38. CCC is particularly concerned over the potential impact of an additional workforce on its local housing market which could see a significant increase in workers seeking accommodation in the private rented sector and local tourist accommodation. Greater competition in the private rented sector could adversely impact on the more vulnerable members of society currently in this accommodation. CCC requests evidence on how the additional workforce would be accommodated in the local housing market, and how it should be modelled in the gravity model to determine what additional mitigation will be required, where and when. BRB is also expected to ensure that its accommodation strategy and potential housing fund covers this Council's area and that CCC is engaged alongside MDC and ECC to ensure that the housing market can sustainably accommodate additional workers. CCC would expect the provision of permanent accommodation to provide a positive local legacy.
39. CCC would welcome the opportunity to discuss opportunities to enhance community services and facilities in its area, in particular at SWF, such as sport and recreation facilities for campus residents, in order to provide benefit and legacy to the local community.
40. CCC also expect BRB to invest in skills, employment and business interventions that will provide a range of significant benefits including new employment opportunities for young people and the unemployed, enhanced local skills and training services and new opportunities for businesses and inward investment. CCC expect to be fully engaged in the development of initiatives and projects, alongside Essex Chamber of Commerce and Chelmsford Business Board, in the development of the supply chain opportunities to ensure Chelmsford businesses can benefit as much as possible.

#### Cumulative Impacts

41. BRB are advised to consider fully the proposals for substantial new infrastructure, housing and employment development in the South Essex which will be in addition to the Bradwell B development. This will include a major new residential and employment-led development at SWF, 100 new dwellings in Danbury, growth in Basildon and Rochford's Districts, Cross Rail and the Lower Thames Crossing. It is unclear in the consultation document if BRB has adequately considered the cumulative effects of these developments including the availability of construction labour. BRB is urged to consider the timing and impacts of all local developments and any opportunities to work together and coordinate joint approaches to mitigation. As such, BRB is asked to work closely with other developers, including the developers of land north of SWF, to consider how mitigation across schemes and in particular at SWF can be coordinated and combined to minimise the impact of the combined developments and disruptions to the local area.
42. The new connection required to export the electricity generated by Bradwell B to the National Grid could also have significant impacts across a wide area including SWF. CCC expect BRB to work closely with National Grid to align proposals to enable cumulative impacts to be fully assessed and mitigated, and to include CCC in these discussions.

#### Consultation and Covid-19

43. The Coronavirus pandemic has led to the cancellation of some of BRB's planned consultation events including the majority of public exhibitions and this may have limited the opportunity for consultees to participate effectively in the consultation. Extending the consultation period and offering alternative

ways to engage such as webinars, interactive exhibitions and telephone surgeries will have helped some interested parties to still engage. However, it is considered that this unprecedented pandemic will have reduced the opportunity for some to respond and CCC urge BRB to undertake more than one further stage of pre-application consultation to reflect this.

## Conclusion

44. CCC has identified a considerable number of issues that need to be addressed before the stage 2 consultation. As such, CCC either objects, is not content or is unable to come to a clear view on several key aspects of the proposal in so far as they affect this Council's area. In particular, CCC strongly objects to the proposed early years and peak construction years transport strategy and the proposed modal split between marine, rail and road transport for the movement of construction freight and workers. CCC considers that there should be much greater reliance on marine and rail and will expect a range of robust evidence to be made available to fully understand the preferred proposals to be put forward by BRB in the stage 2 pre-application consultation.
45. CCC expects to work proactively with BRB to help understand and address its issues and to identify effective mitigation, management and compensation measures that will be required across the local and wider area.

**Colchester Borough Council**  
**Response to Bradwell B Scoping Report**

06 November 2020

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

**Application by Bradwell Power Generation Company Ltd (the Applicant) for an Order granting Development Consent for the Bradwell B New Nuclear Power Station (the Proposed Development)**

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

**1. Introduction**

- 1.1. This consultation is an opportunity for consultees to comment on the scope of the EIA for a new nuclear power station at Bradwell-on-Sea (Bradwell B). The applicant has prepared a detailed EIA Scoping report, with numerous appendices outlining the preliminary environmental assessments that have been carried out.
- 1.2. Environmental experts across the range of environmental topics in the scoping report covered will comment on the scope of the work. Colchester Borough Council (CBC) advises that the views of environmental experts is fully taken into account and in all cases the precautionary approach is followed.
- 1.3. CBC appreciates that consultation on EIA scoping is subject to a regulatory time period. However, given the nature and scale of the proposal and wealth of likely significant negative environmental impacts we believe that the consultation period should be longer to enable full scrutiny of the EIA scoping report.
- 1.4. CBC has worked closely with Essex County Council (ECC) and Maldon District Council (MDC) to understand the potential for environmental effects from the proposals and supports their approach to responding to the EIA scoping report.
- 1.5. CBC identify some broad concerns that pertain to the scoping exercise as a whole, but also make additional comments on the specific scoping topics where there are a significant number of specific concerns. These are set out in the topic specific chapters of this consultation response.
- 1.6. We reserve the right to supplement our comments as the project progresses and more information comes to light.
- 1.7. CBC has a policy of objecting to new nuclear at Bradwell and at a Full Council meeting in August 2020 it was resolved that:
  - 1.7.1. “Accepting different views may be held strategically about Nuclear Power for the UK, this Council wishes to make clear its position on new nuclear at Bradwell and the impact of new nuclear upon the Borough of Colchester. This Council objects to the new nuclear facility at Bradwell due to the local environmental impacts and prefers a focus on renewable energy alternatives. [The concern based upon ‘local environmental impact’ reflects Colchester Borough Council’s investigations into Bradwell B in

2009/10 through the Strategic Overview and Scrutiny Panel Task and Finish group on new nuclear at Bradwell].”

- 1.8. CBC believes that the site is unsuitable as the potential for environmental destruction, loss of habitats, impacts on the estuary’s fishing, tourism and natural beauty would transform a peaceful and precious area into a potentially noisy, oppressive, polluting and dangerous nuclear complex. There is potential for the proposed development to have a significant impact on multiple aspects of the natural, cultural and historic environment of coastal Colchester. The EIA process will identify negative environmental effects as well as mitigation measures, however CBC does not believe that the latter will sufficiently protect or enhance the landscape and biodiversity assets of the borough nor maintain the character of the undeveloped coast.

## 2. **General Comments**

- 2.1. CBC concurs with ECC/MDC that it is welcome that the submission proposes very little to be scoped out of the EIA.
- 2.2. Based on the information contained within the Scoping Report and the accelerated timescale which is being applied to this project we believe that the current report is premature. We feel that the proposals, as they develop, with continued emphasis on an integrated sustainable transport strategy may need to be re-scoped prior to the Development Consent Order submission. The scoping submission pays too little recognition to the potential for significant local impacts of the proposed development. Detailed assessment methodologies should be developed that are based upon a thorough understanding of baseline conditions and detailed impact pathways for potential significant effects.
- 2.3. There are concerns regarding the level of information that will be included about the proposed development and how the options were developed and filtered in order to arrive at an indicative layout.
- 2.4. That the decommissioning phase of the project should not be scoped out of the Environmental Impact Assessment (EIA). Supports a precautionary approach to scoping out any issues to ensure community confidence that all areas of concern are specifically and robustly addressed.
- 2.5. The submission fails to consider the environment in a holistic manner. This interplay and integration of factors that contribute to the baseline and understanding of place needs to be much better reflected in the heritage, ecological and landscape sections of the environmental statement.
- 2.6. Robust baselines are essential and there is more work to be done to establish adequate baselines,
- 2.7. Impact assessment should consider the likely significant effects of the proposals both without and then with intervention measures added (i.e., mitigation, compensation). This enables consultees and decision makers to have a better understanding of the potential project effects and the relative importance of individual interventions thereby promoting a more robust assessment.
- 2.8. Likely significant effects should be individually assessed and reported, rather than aggregated to create an overall assessment. This approach is not explicit within the scoping report submission.
- 2.9. The submission should demonstrate how avoidance as well as mitigation of negative effects is being pursued through the design process. The applicant

should also seek to demonstrate more emphatically how the scheme will provide compensation towards creating beneficial effects rather than just mitigation of negative ones.

- 2.10. In-combination minor effects can sometimes combine to create significant cumulative effects across topics.
- 2.11. Have indirect impacts been identified and scoped in?
- 2.12. Evaluation of options for development appear to have been selected before baseline conditions and project effects are known.

## TOPIC SPECIFIC COMMENTS

### 3. Transport (6)

#### Generally

3.1. CBC supports ECC/MDC view that the transport strategy should seek to maximise the sustainability of all transport related to the construction and operation of the power station in its entirety. We understand that ECC and MDC are working with BRB to develop an agreed approach to the transportation of people and goods associated with the construction and operation of Bradwell B. We support the joint council's view that this transport strategy should not only deliver the power station but also maximise the sustainability of all transport used in the construction and operation of the power station, minimise carbon production, maximise benefits as well as minimising adverse effects on the environment, local communities and the wider transport network including Colchester borough.

#### 3.2. Detailed comments:

- 3.2.1. Para 3.6.19 A more comprehensive multi-modal Freight Management Strategy should be required alongside a standard Construction Traffic Management Plan to ensure there is a coordinated management of all construction related freight movements.
- 3.2.2. Para 3.6.49 The EIA scoping report should make reference to the potential transport impacts of the operational phase of the development, including on the wider network of Colchester borough. This includes the potential use of marine and rail transport for the movement of construction freight and materials, the former of which has the potential for impact on the recreation and amenity value of the estuary, as well as its ecology. The emerging Transport Strategy will need to thoroughly consider the impacts and issues associated with both construction and the operational phase of the development.
- 3.2.3. Para 3.4.6 What volume of material will be required to create the platform on which the power station sits and create the sea defences to protect it? What are the implications of this material being moved by sea?
- 3.2.4. Para 6.6.56 CBC shares the Council's concerns that the report assumes there is limited potential for marine freight to reduce HGV trips on the local road network.
- 3.2.5. Para 6.6.57 CBC shares the Council's concerns that it is proposed that road transport alone will be assessed. The various road scenarios are interdependent with the proportion of freight and workforce to be moved

by rail and sea; further information is required with regards to the split between modes.

3.2.6. Para 6.8.1 CBC shares the Councils view that the range of potential mitigations still needs further development, is dependent upon the quantities of people and materials to be transported, the mode split between marine, rail and road and should be developed in line with the delivery of the transport strategy outcomes.

#### 4. **Noise and Vibration (7)**

##### Generally

4.1. The Councils have some concern in this Chapter about the proposed methodology for assessing effects and determining its significance. The derivation of screening values and sensitivity ratings require clarification and their selection justified. There is also concern over the proposal to scope out certain effects from the assessment.

##### Detailed comments:

4.2. Para 7.1.58 CBC note that 'Baseline noise surveys will be carried out as part of the EIA. The methodology and locations will be developed in consultation with relevant stakeholders (notably the local authorities).' CBC supports this proposed engagement in the details of the noise surveys and request that CBC be engaged in this. CBC requests that baseline data gathered includes Mersea Island and the Blackwater Estuary itself as potentially impacted receptors during both the construction and operation of the plant.

4.3. Para 7.7.7 It is identified in the Scoping Report that residential receptors will have a sensitivity rating of Medium applied for the assessment. CBC supports ECC/MDC identification that Scottish guidance suggests that residential receptors should be considered 'Highly sensitive' along with theatres, schools, hospitals and places of worship.

4.4. Para 7.6./Table 7.12/ Table 7.18 CBC has concerns about potential noise pollution and loss of amenity arising from construction activity from the proposals and potential transport of material by sea. Whilst the impact from noise may prove insignificant, the water surface of the River Blackwater will provide a reflective surface allowing the noise created at the source to be carried further than across land.

4.5. Table 7.22 CBC is deeply concerned that the proposal is to scope out residential receptors at West Mersea from the assessment. The study area should include West Mersea, as a nearby settlement and tourism centre, to provide reassurance to local communities that potential significant effects have been scoped in and fully assessed.

#### 5. **Air quality (8)**

##### Generally

5.1. CBC understands ECC/MDC are satisfied with the overall approach and methodologies proposed for determining baseline and undertaking assessments for human receptors as these are in line with relevant guidance



and we would concur with this. We agree with deferment to the advice of Natural England in respect of ecological receptors and air quality.

Detailed comments:

- 5.2. Para 8.6 CBC believes principal monitoring should take place in West Mersea as it is the largest settlement closest to the Bradwell B site being only 2Km to the north. This will provide reassurance to local communities that not only will potential significant effects be fully assessed, but that any adverse effects are being kept under surveillance.
- 5.3. Para 8.7.8: With respect to human receptors, CBC is concerned that it is proposed to scope out air quality impacts on the local community at West Mersea at this early stage, even though, as ECC/MDC have identified that Appendix 8D says 'At this stage in the Project design, it is not possible to estimate the likely emissions that will arise from the main development site during the construction, commissioning and operational phases with a high degree of confidence.' CBC believes it is imperative that West Mersea stays scoped in for air quality impacts until greater confidence in the likely emissions can be confirmed.

**6. Radiological (9)**

Generally

- 6.1. CBC concurs with ECC/MDC that as we do not have expertise in potential radiological effects and applicable assessment methodologies we will defer to the advice of expert organisations, such as the Environment Agency, at this stage.

**7. Socio-economics (10)**

Generally

- 7.1. It is not clear to CBC if the full adverse or beneficial effects for Colchester are being considered as part of the scoping exercise. The overall assessment should identify the 'significant and cumulatively significant' socio-economic effects for Colchester Borough as well as locally, in order to recognise that the outcome of the socio-economic effect could be widespread.
- 7.2. In terms of tourism, CBC concurs with Essex County Council and Maldon District Council that the document is too focused on the effects of the proposals on tourist accommodation and does not appear to consider the importance of tourism more widely to the local economy. The effect on sense of well-being and place, particularly on the destination of West Mersea, is also not scoped in, nor the far-reaching influence of tourism across all topic areas.
- 7.3. CBC specifically request that a Social Impacts Assessment is carried out.
- 7.4. Whilst a proposed Socio-Economic Fund (10.8.3) is a welcome source of mitigation, more information needs to be provided to understand what this fund is being proposed to be used for and how it could mitigate adverse effects or maximise benefits from the project. Clarification is needed to identify that businesses and communities on Mersea Island would be explicitly eligible to apply for this fund.
- 7.5. Mention is made in the Scoping Report of potentially incorporating permanent housing somewhere on the Dengie Peninsula, in addition to the temporary

accommodation campus, but this currently lacks detail including potential locations. It would be of concern to CBC if large scale permanent housing were proposed for a low-lying coastal location on the Blackwater estuary opposite CBC's primary coastal resort.

Detailed comments:

## **7.6. Economics**

- 7.6.1. Table 10.1 CBC supports ECC/MDC in welcoming the 'Jobs and People' section of the stage one consultation (table 10.1).
- 7.6.2. CBC agrees with ECC/MDC that workforce planning should also identify how the developers intend to work with relevant Essex partners to maximise recruitment across all skills levels.
- 7.6.3. Para 10.2.1 CBC agrees that that all adjoining authorities to the development including Colchester Borough Council should be referenced in respect of their policies including relevant socio-economic policy.
- 7.6.4. Table 10.5 CBC socio-economic evidence base relating to the emerging Local Plan should form part of the baseline.
- 7.6.5. Tables 10.8-10 CBC agrees that the report should include the impact of the scheme on 'public perception' of the area or on its 'Sense of Place'.
- 7.6.6. Table 10.9 and 10.10 ECC and MDC have identified a need for a skills, employment and business support fund. This fund should include support to firms and individuals based in the CBC area as well.
- 7.6.7. Para 10.8.3 The economic and social baseline and mitigation proposals should explicitly include the CBC area.
- 7.6.8. Table 10.5 CBC supports ECC and MDC's views that the assessment of direct and indirect significant effects of the proposed development on population and human health should include effects on where people work. This assessment should include the CBC area. The evidence base for the assessment should include Sections 1, 3 and 6 of Colchester's emerging Local Plan evidence base: <https://www.colchester.gov.uk/info/cbc-article/?catid=emerging-local-plan&id=KA-02202>

## **7.7. Tourism**

- 7.7.1. Para 10.1.7 CBC believes Impacts on tourism on Mersea Island and on the Blackwater estuary are likely to be adverse. A baseline assessment, key receptors, scope and methodology for impact assessment of tourism receptors should therefore be identified. A mitigation and compensation package should be specifically created for Mersea Island tourism impacts.
- 7.7.2. Table 10.1 CBC agrees with the Councils that the approach to tourism assessment does not demonstrate the far-reaching influence of tourism across all workstreams. CBC agrees this is a flaw in the approach that should be reviewed to ensure the economic and social baseline for tourism is more fully captured.
- 7.7.3. Para 10.2 The socio-economic assessment (10.2) fails to recognise the potential impact of the project on reputation, brand and 'Sense of Place'. This may be experienced by businesses, local brands, residents and visitors with wide reaching effects across economic, tourism and community stakeholders. The Scope should recognise 'Public Perception' or 'Impact on Sense of Place' as a parameter of the Project

- 7.7.4. Table 10.2 CBC agrees that the review of legislation and policy relevant to socio-economic effects is too overly focused on energy, economy, housing and planning. It does not represent a review of appropriate socio-economic legislation and policy, particularly in respect of community, tourism and recreation. CBC agrees the legislative and policy baseline should be expanded to cover these topics.
- 7.7.5. Para 10.4.1 and 10.4.2 We strongly agree with ECC and MDC that Owing to its visual impact and geographic proximity, Mersea Island, the Colne Estuary and associated coastline (in both Colchester Borough and Tendring District) needs specific consideration particularly in relation to tourism effects (10.4.2). CBC has concerns regarding the limited number of attractions identified in the locality under 'Recreation'. Mersea Island beaches, the proposed England Coast Path, and the estuary itself, much of which is of international importance for nature conservation should all be acknowledged.
- 7.7.6. Para 10.4.12 CBC asserts that it is not appropriate for the EIA scope to limit its consideration of the Tourist economy on tourist accommodation only. Much of the focus of tourist activity is within the Blackwater, and Colne estuaries, focussing on outdoor activities such as walking, cycling, sailing and quiet recreation/play on beaches, in the countryside, the town of West Mersea and in holiday parks. We agree with ECC/MDC that it is disappointing that these reasons are consistently downplayed by the applicant and its submissions. Any CBC focussed tourism studies should be included in the evidence base.
- 7.7.7. Para 10.8.3 CBC also welcomes that the concept of specific funds used to help in mitigation have been identified as possibilities for use in this project.

## **7.8. Community**

- 7.8.1. CBC welcomes that nothing has been scoped out of the socio-economic assessment.
- 7.8.2. Para 10.4.17 We concur with concerns that some critical community services, such as healthcare, ambulance and coastguard services operate within a broad geographic scale which does not necessarily reflect local authority administrative boundaries.
- 7.8.3. Para 10.7 and Table 10.8 CBC agrees that the effects of the proposals may be experienced differently by different population groups. These groups need to be identified and engaged with appropriately. including those with protected characteristics as identified by the Equality Act 2010 (Table 10.8).
- 7.8.4. Table 10.10 We concur with the ECC/MDC concerns that, care should be taken in the use of the words "local" or "locally". Clarity is needed as to whether this refers to being within the Maldon District. or within the 60/90-minute travel zones which is more sub-regional in scale.
- 7.8.5. Para 10.8.3 We concur with ECC/MDC that a Community Fund is seen as one of the ways to mitigate and compensate the harm that would otherwise be caused by the development. We would welcome the details of this to be expanded to identify how the developer would capture the impact of the project across all communities, including appropriate ones in

West Mersea, including vulnerable and under-represented groups, to improve the equity of mitigation and compensation. There may be other measures to mitigate adverse effects or maximise benefits.

## **8. Human Health (11)**

### Generally

- 8.1. CBC supports ECC/MDC's concerns in relation to the strategic and operational impact COVID-19 is having on the Health and Wellbeing capacity which is causing unprecedented resource implications for Local Authorities and healthcare agencies.
- 8.2. CBC also supports the promotion of sustainable travel options to promote cycling, running and walking to encourage the workforce to keep healthy, explore the existing rural area and use sustainable methods of transport. Opportunities to connect to, improve and extend pre-existing and proposed cycle-routes and footpaths /bridleways including signage and educational interpretation boards. These should be provided on the north side of the Blackwater Estuary as well as on the south side. Such improvements would be a potential legacy benefit of the Bradwell B project to the local and wider community.
- 8.3. Similarly, opportunities to enhance and extend the general green/blue infrastructure network with its inherent recreational benefits (both active and passive) should be pursued. Given the location of the development, this will need to be partially linked with management of appropriate behaviour to avoid adverse impacts on the integrity of the internationally designated coastal sites; recreational disturbance is a key issue for the sensitive over-wintering and breeding birds on the estuaries and coast and potential impacts will need to be assessed within the Habitats Regulations Assessment.

### Detail comments:

- 8.4. Para 11.2.1 CBC needs to be referenced as a neighbouring Authority in all circumstances.
- 8.5. Table 11.1 Relevant CBC policies and strategies need to be referenced in relation to health and well-being impact assessment.
- 8.6. Table 11.1 CBC supports that the scope of the NPPF needs to be extended, and should identify the relevance of paragraph 92 by addressing mental health and well-being effects of the proposals
- 8.7. Table 11.2 In our stage 1 consultation response, CBC recommended a stand-alone Health Impact Assessment (HIA). This has not been identified as an appropriate baseline study in the EIA Scoping Report.
- 8.8. Para 11.3.1 CBC supports the establishment of a Human Health Group but clearer detail, including clear terms of reference and a stakeholder list (e.g. primary care networks, local authority, health and care partnership, leisure providers) needs to be identified. This stakeholder list should comprise of both strategic and operational stakeholders. CBC needs to be part of this Working Group.
- 8.9. Table 11.3 The impacts on Health go far wider than the areas within ECC, MDC and CCC. CBC area should be scoped into all health and well-being impact assessment.
- 8.10. Para 11.4.4 CBC agrees that baseline areas should be consistent throughout the submission to include Maldon, Chelmsford, Braintree &

Colchester, plus wards that are impacted by the transport routes to Bradwell, in addition to the wards that are located close to the development.

- 8.11. Para 11.4.4 The stated baseline study areas should include neighbouring and nearby districts such as Colchester, Rochford, Braintree, and Tendring
- 8.12. Para 11.5.11 CBC agrees that given the broad nature of the wider determinants of health, then unintended consequences / impacts, cumulative impacts and also beneficial impacts should also be analysed.
- 8.13. Table 11.8 CBC concurs with ECC/MDC that the Scoping Report needs to recognise that not all mitigation can be contained within the construction site given the uniqueness of the district and the site location. This development will have a significant impact, including on health, beyond adjoining villages, including to across the estuary on Mersea Island, and these impacts need to be acknowledged.
- 8.14. Tables 11.7 and 11.8 CBC agrees that further legacy improvements in terms of general amenity, recreational facilities and routes, green/blue infrastructure and open space should be provided and should include enhancements on Mersea Island which will be significantly impacted in terms of landscape/seascape, visual amenity, and well-being if these proposals go ahead

## 9. Climate Change (12)

### Generally

- 9.1. CBC recognises that future climate change will have significant impact on the development in this coastal location which appear to have been scoped into the proposed Environmental Statement. CBC recognises that government accepts that nuclear power has a role in the UK's energy future as a low carbon technology, however we do not believe that nuclear power is a low carbon technology when the whole life cycle is taken into account. CBC believes that nuclear power is in decline and the need for nuclear power is not as strong as it was previously. Climate change is an argument against nuclear power, not for it, and CBC believes that nationally there should be a focus on renewable energy technologies.
- 9.2. CBC share the concerns of ECC/MDC that the submission is taking a 'top down' approach to the assessment of greenhouse gas emissions and the carbon footprint of the proposed development. The climate change impacts of the development would be brought about by a wide range of impacts across a wide range of individual topics and with impacts at a local as well as a global level. These could include, but not limited to; transportation (electric vehicles and charging points, use of public transport, car sharing, sustainable low carbon traffic modes etc); the built environment (the accommodation proposed, the power station buildings etc); green infrastructure (planting, Sustainable Urban Drainage, greenhouse gas emissions, air quality etc). CBC agrees that the Environmental Statement, in relation to greenhouse gas emissions, incorporates more fully the assessment of these impacts across topics and identifies where the proposed development has maximised opportunities to minimise adverse effects and maximise positive effects, including site specific and local interventions.

- 9.3. CBC share ECC/MDCs concern that the proposed assessment of impacts does not take into account the potential impacts over the lifecycle of the proposed development. Given the lifetime of the development as proposed, with approximately 12 years for construction, followed by 60 years of electricity production, then a period for decommissioning
- 9.4. We consider that the assessments should have a temporal scope of at least 90 years to include construction, operation and decommissioning of the proposed development. Also, as the proposal includes an Interim Spent Fuel Store as part of the decommissioning proposals it is likely that this will have a lifetime of 100+ years, therefore the temporal scope for that assessment should be 100+ years. CBC therefore ask that the temporal scope for the assessments is extended within the Environmental Statement.
- 9.5. CBC recognise that PINS will receive specialist advice on the impact of climate change on the proposed nuclear power station, including from the Environment Agency.

Detailed comments:

- 9.6. Para 12.1.2 The Environmental Statement must fully consider the project's negative impacts on climate change through effects on greenhouse gas emissions, and the vulnerability of the development to climate change, particularly from sea level rise. The former has gained importance in view of the global climate emergency, CBC declared a climate emergency in 2019.
- 9.7. Para 12.1.4 CBC agrees with MDC/ ECC that the aim of the assessment should be to identify the positive and negative climate change emissions from the lifecycle of the project with a view to maximising the benefits and minimising the negative effects.
- 9.8. Para 12.1.8 CBC note that the only work to date refers to the Generic Design Assessment (GDA) consideration of the potential impacts of climate change on the proposed reactor technology. No discussions have been held with any of the Councils on the potential impact the development could have on greenhouse gas emissions We agree with ECC/MDCs view that greater engagement going forward would be welcomed.
- 9.9. Table 12.12 The Essex Climate Action Commission was set up and a series of Special Interest Groups to advise ECC about tackling climate change.
- 9.10. The commission has over 30 members, including CBC, over a wide range of senior professionals, local councillors, academics, businesspeople and two members of the Young Essex Assembly. The commission will run for two years initially and make recommendations about how we can improve the environment and the economy of Essex. The findings of the commission will not be published until March 2021, but the applicant should have regard to this emerging advice within the Environmental Statement as it is expected to impact on local policies and aspirations relevant to the proposed development
- 9.11. Para 12.4.2 and 12.8.7 The submission states that the decommissioning of Bradwell B has been scoped out of the assessment. CBC agrees that a whole life cycle carbon assessment should be assessed as part of the project with the focus on achieving net carbon gains over the entire lifetime of the development. It is fully appreciated that the decommissioning stage of the nuclear facility would be subject to a separate consent and details will be less certain for any assessment.

- 9.12. Para 12.4.4 CBC agrees with MDC/ECC that the temporal scope for the assessment of greenhouse gases should include the full lifecycle for the development, including decommissioning. It should also include a break down across phases that identifies the net gains achieved or lost by design choices made in the development of the proposal to enable an assessment of opportunities for improved carbon performance.
- 9.13. Para 12.4.7 CBC agrees with MDC/ECC that in view of the lifecycle of the proposed development it is recommended that the temporal scope of the Vulnerability to Climate Change assessment is extended to include the decommissioning phase of the development.
- 9.14. Para 12.5.1 CBC agrees with MDC/ECC that the baseline and future baseline should not be referenced against UK energy supply but against the actual local baseline on site.
- 9.15. Para 12.6.1 and 12.6.3 CBC agrees with MDC/ECC that net impacts are also identified to allow for a comprehensive assessment. The scope for this is implied by paragraph 12.6.3 of the submission that states that 'The assessment would consider all approaches to reduce GHG emissions within the construction, design and operation of the Project.'
- 9.16. Section 12.9 of the submission talks about mitigation and procedures for low carbon design. CBC agrees with ECC/MDC that the development should adopt the principles of net zero-carbon design given that this nuclear power station will be operational post 2050.

## **10. Major Accidents and Disasters (13)**

### Generally

- 10.1. CBC agrees with ECC/MDC that Emergency Planning for the life of the development and should be the subject of further stakeholder engagement and reported back as such in the eventual Environmental Statement. This should show how these outcomes have informed the assessment. Community engagement through a Community Safety Plan should engage communities on Mersea Island as well as on the Dengie Peninsula.
- 10.2. The baseline information submitted with other technical assessments may not be sufficient to undertake the assessment of major accidents and disasters, and it is requested that the Applicant undertakes an analysis of any gaps in the information and carry out any further studies and surveys if required. The details of any further studies should be provided in the Environmental Statement (ES). Factors influencing potential changes to the baseline in the future should also be considered and reported in the ES.
- 10.3. For both the construction and operational phases of the development the impact of accidents at adjacent land uses are defined as risks in the Scoping Report. However, major hazards may arise from uses more distant from the site and should also be taken into account. The lists of potential construction and operational impacts cannot be regarded as conclusive at this stage and the potential for further impacts should not be discounted in the assessment.
- 10.4. Emergency Planning for the site needs to factor in that Mersea is an Island and at times of high tide, emergency access and egress would be limited

due to the main causeway, The Strood, being submerged. Therefore, the report should include an evacuation plan for Mersea Island.

- 10.5. Emergency Planning should also include a triage of information for any incidents that could potentially affect the harvest of fish and shellfish in the estuary. The classification of these beds depicts the timeframe for purification to be undertaken. Any incidents that could potentially affect the consumption of these products needs to be conveyed quickly to CBC, local fishermen and DEFRA.
- 10.6. The Councils acknowledge that the Office of Nuclear Regulation and Environment Agency also have important licencing and permitting roles outside of the Development Consent Order process to ensure the safety and security of any nuclear site proposals.

Detailed comments:

- 10.7. Table 13.1 Legislation and policy. Reference should also be made here to any relevant CBC adopted or emerging Local Plan as well as Chelmsford City Council.
- 10.8. CBC agrees with, ECC/MDC that Section 13.1 does not adequately capture the potential non-human receptors. Potential heritage, landscape and ecological receptors of importance may have been omitted.
- 10.9. Para 13.4.5 CBC understands that the study area for radiological major accidents and disasters will be consistent with the agreement under The Radiation (Emergency Preparedness and Public Information) Regulations REPPIR. And that for scoping, a conservative distance of 30 kilometres (km) from the main development site has initially been identified for radiological effects.
- 10.10. Table 13.4 Size of Study Area Further to the above, CBC understands that the study area for non-radiological effects is 20 Km for Marine Receptors and 10Km for Land based receptors. CBC obviously has deep concern that communities in West Mersea and beyond as well as the marine environment could lie in the pathway of major radiological or non-radiological accidents.
- 10.11. Para 13.5.4 CBC notes that there are 23 Scheduled monuments, nine Grade I and 23 Grade II\* buildings, 7 No. Conservation Areas, six Ramsar sites, seven Special Protection Areas, one Special Area of Conservation, seven Sites of Special Scientific Interest and three National Nature Reserves, within 10km of the main development site. One Marine Conservation Zone, the Blackwater, Crouch, Roach and Colne Estuaries Conservation Zone, has been identified within the 20km study area. CBC has deep concerns that so many designated heritage and ecological features are within this potentially hazardous zone.

## **11. Water environment (15)**

### Generally

- 11.1. CBC understands that the water environment submission concerns surface water and groundwater conditions and is being addressed separately from the Flood Risk and Drainage chapter of the submission.



- 11.2. CBC understands that parts of the main development site, including the identified area for the Power station permanent development are within flood zones 2 and 3. CBC agrees with ECC/MDC that in planning for development, the precautionary principle regarding possible long-term impacts from climate change including sea level rise and increased storminess should be applied. We support ECC/MDC in calling for the advice of the Environment Agency to be taken with regards to the proposed scope and methodology for predicting the risks of flooding applicable to the proposed development.
- 11.3. CBC shares ECC/MDC concerns that this chapter fails to adequately appreciate the inter-connection between flood risk and other EIA topics, including ecology and cultural landscape, and that the methodology proposed is inadequate to assess significant impacts.
- 11.4. Table 16.1 Reference to the NPPF should also include that, 'Within a site, the most vulnerable development should be located in areas of lowest flood risk, unless there are overriding reasons to prefer a different location'.
- 11.5. Para 16.8.7 CBC agrees with ECC/MDC that the submission should acknowledge that the mitigation measures to address the risk of flooding, including the raised platform and new sea defences to be included in the proposed development, are in themselves likely to result in significant effects.

## **12. Coastal Geomorphology and Hydrodynamics(17)**

### Generally

- 12.1. CBC understands that the Environment Agency is expected to provide expert advice to PINS in relation to the scope of the assessment of impacts to coastal geomorphology and hydrodynamics
- 12.2. CBC shares ECC/MDC concerns that the contemporary geomorphological processes along the Essex coast identified within the Essex and South Suffolk Shoreline Management Plan, highlight concerns over potential loss of saltmarsh and mudflat which acts as a natural flood and erosion defence and that average losses of 7 and 2.7 hectares per year of saltmarsh the Dengie and Blackwater marshes have been recorded.

## **13. Marine Water Quality and Sediments(18)**

- 13.1. CBC does not have expertise in marine water quality and sediments and their assessment and will defer at this stage to the advice of expert organisations, such as the Environment Agency, Natural England and the Marine Management Organisation

## **14. Navigation (19)**

- 14.1. CBC does not have expertise in navigation and its assessment and will defer at this stage to the advice of expert organisations, such as the Environment Agency, Natural England and the Marine Management Organisation
- 14.2. We appreciate that marine transport is critical to the delivery of the proposed development and that marine could be the most sustainable mode of transport for construction goods and materials during the construction phase of the project.

- 14.3. We share ECC/MDC concerns that It is not clear at this stage that the proposed study area would be adequate to consider potential navigational effects, or whether the proposed assessment methodology is appropriate.
- 14.4. CBC is reassured that nothing has been scoped out of the assessment in relation to this chapter.

## **15. Landscape and Visual Impact (20)**

### Generally

- 15.1. CBC is concerned that much of the landscape and visual advice given earlier is not addressed through this scoping report. We are also concerned that the proposed methodology does not adequately address the baseline assessment, including of the seascape, visual impact from the northern shore of the Blackwater Estuary, and assessment of likely significant impacts.
- 15.2. The approach should also demonstrate how Landscape and Visual Impact Assessment has been used as a design tool and been used to inform, if not the choice of site, then the orientation of the scheme on the site, the alignment or orientation of buildings, the route for associated roads, as well as choice of surface materials, finishes and particularly colour, which if suitably considered can have a significant impact on how the structures proposed will sit within the landscape/seascape when viewed from Colchester Borough. In an open, low-lying, heritage rich landscape/seascape such as this, the LVIA should not be used solely as a tool to identify where mounding and mitigation planting goes.

### Detailed comments:

- 15.3. Table 20.1 Legislation and Policy the relevant policies from CBC emerging Local Plan should also be identified and referenced as these are the likely policies that will be in place when the application comes forward for determination.
- 15.4. Table 20.2 'Design Principles for National Infrastructure' document (NIC Design Group) should also be flagged up as a relevant guidance document, even though it does not pertain to assessment methodologies as such.
- 15.5. Table 20.2 On 30/09/2020 the Landscape Institute released the "Infrastructure: Technical Guidance Note 04/2020". Although brief, we would ask that this is also included in the guidance references.
- 15.6. Table 20.4 Whilst accepting that it is difficult to summarise responses from consultees, CBC is concerned that the full scope of our response is not captured in Table 20.4. The following issues were also raised back in July 2020:
- 15.7. Baseline: CBC flagged up the importance of cultural association for the Dengie Peninsula and Mersea Island, including those identified in 'The Landscape Character of the Essex Coast'. These include writers such as Daniel Defoe, Sabine Baring Gould (author of 'Mehalah,') Jonathan Raban, Sarah Perry (author of The Essex Serpent (2016) set around Colchester and the marshes of the Blackwater) and Michael Morpurgo, whose memoir of growing up in Bradwell captures the development of Bradwell A (Homecoming (2016)). Cultural Associations form an important part of landscape character and how it is perceived and are indicative of how the

natural and man-made landscape are so important to our sense of place and memory.

- 15.8. CBC also flagged up issues with the visual baseline. These are detailed under the response for Para 20.5.30 below.
- 15.9. Assessment Scope It appears as though there is theoretical visibility beyond 25KM on the seaward/estuary side of the Site i.e. to the east/south-east. The full extent of this seaward visibility should be identified and described, even if the effect is not deemed to be significant in LVIA terms. In relation to Colchester, theoretical visibility is shown to the northwest of Colchester around the high ground at Fordham. How will it be demonstrated that there will be no visibility from this high ground north of the A12?
- 15.10. In our July 2020 consultation response, we identified that care should be taken in amalgamating the judgement values of different viewpoint effects as it is often the outliers that are most significant. In our judgement, amalgamation of viewpoint effects should only occur from viewpoints a similar distance from the proposed development and in the same quadrant of view so as to not distort the overall judgement.
- 15.11. Stakeholder engagement Whilst accepting that it is difficult to summarise responses from consultees, CBC is concerned that little from our response on LVIA back in July 2020 appears captured in Table 20.4. These included detailed comment on the study area, the landscape baseline, seascape character assessment, visual baseline and viewpoint selection. Some of the details raised in our July 2020 response are incorporated in this response but otherwise, the remainder should be accounted for in future discussions and the EIA itself.
- 15.12. Mitigation The impact on the seascape and the visual impact on West Mersea is largely not mitigatable. However, no details are given in the Scoping Report as to how the elements that can be, will be accounted for e.g. through the use of a landscape led colour study. CBC supports ECC/MDC view that a colour study needs to inform the development ahead of the EIA being carried out and therefore that the scope and approach to the colour study should form part of the scoping exercise. This colour study should be landscape-led.
- 15.13. Table 20.5 CBC supports ECC/MDC's calls for the Residential Visual Amenity Assessment RVAA study area to be extended to include properties in West Mersea. As the coastal properties of West Mersea (Coast Road, Beach Road, Meadow Lane, Grove Avenue, Kingsland Beach, and Victoria Esplanade) look directly at the proposed site across open water, properties here should also be included in the RVAA study area, or the LVIA approach adapted and extended to include additional VPs from public areas that can represent these extensive sensitive residential/visitor receptors
- 15.14. Para 20.5 There is no description of the character of the estuary itself within the 'immediate landscape context' outline narrative. Further description should be provided to inform the Environmental Statement.
- 15.15. Para 20.5.20 Local landscape character areas needs also to make reference to the local character of the relevant character areas along the north side of the Blackwater Estuary in Colchester Borough. This should be added in.
- 15.16. Para 20.5.30 Visual Baseline The description here is very thin. CBC suggests a much more detailed commentary is required of the visual baseline

from key receptors and to give a sense of the visibility of the site from locations in between especially from linear receptors such as PRow.

- 15.17. Our comments from our July 2020 response on landscape and visual issues included:
  - 15.17.1. All the proposed England Coast path needs to be added to the Visual Baseline map of the extended study area, not just some, as this route is a key receptor.
  - 15.17.2. Need to have a viewpoint somewhere on the PRow system that runs East-West south of the spine road on Mersea Island.
  - 15.17.3. Accessible landscapes include the beaches, public open and civic space (which in West Mersea incorporates a section of Coast Road and the front where people stroll in good weather), recreation and playing fields (the latter are not just used for sport). Not all of these are shown on the Visual Baseline map.
  - 15.17.4. Need to add Copt Hall Marshes (NT) to the baseline and have a viewpoint/assessment from this site.
  - 15.17.5. The Colchester Landscape Character Assessment (2005) indicates there are views from the Salcott Marshes of the existing power station buildings
  - 15.17.6. Abberton is on a high point and a viewpoint is needed from the nearby lanes or the PRow system in this area.
  - 15.17.7. There is an elevated point above Abberton Reservoir on Church Road with extensive views south from which the remains of Bradwell A are visible. The nearby PRow system running east-west in this area therefore also needs assessment.
  - 15.17.8. The viewpoint assessments must ensure that they fully describe the effects from potential receptors throughout the area they are supposed to represent, particularly if these are linear receptors, such as PRow or beach sides. The full scale, duration and extent of the views should not be underplayed.
  - 15.17.9. Offshore visual assessment points should be added to assess the effects on recreational boating.
  - 15.17.10. How will the plumes from the cooling towers be taken into consideration in the assessments/visualisations?
  - 15.17.11. In line with the precautionary principle, consideration should be given to carrying out one or more viewpoint assessments with accompanying wireframes from viewpoints on the high ground north of the A12/A120 north-west of Colchester (Fordham/Wormingford area and north-east of Coggeshall), to demonstrate that the new power station with plume would not be visible from these areas.
  - 15.17.12. Table 20.9 Further surveys: The site visit with stakeholders to agree viewpoint locations did not take place in October due to Covid-19. It will not have been possible therefore to have taken all the Summer 2020 viewpoint photographs this year and more will needed to be taken next spring.
  - 15.17.13. Seascape character assessment: CBC would like to be consulted on the approach to Seascape Character Assessment.

- 15.17.14. Table 20.10 Viewpoint selection: CBC judges the following viewpoints are also required from the northern shore of the Blackwater and elsewhere in Colchester borough:
- 15.17.15. A viewpoint assessment should be carried out somewhere on the PRow system that runs East-West south of the spine road on Mersea Island.
- 15.17.16. Copt Hall Marshes (NT) should be added to the visual baseline and have a viewpoint assessment somewhere from this accessible site.
- 15.17.17. The Colchester Landscape Character Assessment (2005) indicates there are views from the Salcott Marshes of the existing power station buildings so a viewpoint assessment should be taken from a public location in this area.
- 15.17.18. Abberton village is on a high point and a viewpoint assessment is needed from the nearby lanes or the PRow system in this area.
- 15.17.19. There is an elevated point above Abberton Reservoir on Church Road with extensive views south from which the remains of Bradwell A are visible. The nearby PRow system running east-west in this area therefore also needs assessment.
- 15.17.20. One or more offshore visual assessment points should be added to assess the effects of the proposals on the amenity of recreational boating.
- 15.17.21. One or more assessments with accompanying wireframes from viewpoints on the high ground north of the A12/A120 in the Fordham/Wormingford area should be carried out to demonstrate that the proposed power station with its plume could not be visible from these areas which are within the Zone of Theoretical Visibility.
- 15.18. The viewpoint assessments must ensure that they fully describe the effects from potential receptors throughout the area that they are supposed to represent, particularly if these are linear receptors, such as PRow or beach sides. The full scale, duration and extent of the views should not be underplayed.
- 15.19. Visualisations: CBC judges it is important for visualisations, including night- time views should be provided for
- 15.19.1. VP12 – Coast adjacent to beach huts, West Mersea.
- 15.19.2. VP13 – Coast adjacent to caravan park south of East Mersea
- 15.20. And one or other of
- 15.20.1. VP 38 River Blackwater off Bradwell A or
- 15.20.2. VP39 Blackwater Estuary

Detailed comments:

- 15.21. Para 20.6.20 Landscape value: This paragraph of the report identifies how Paragraph 5.20 of GLVIA3 identifies information which might indicate landscape value, including landscape quality/condition, recreation value, perceptual aspects, rarity, associations and scenic quality. However, the methodology in Table 20.13 currently refers to Landscape Value purely in terms of whether it is of national, local or of community value/importance. This is nonsensical in a policy world where local landscape designations have been

discouraged at a national level since at least the late C20th and for a landscape type that was overlooked when the concept of AONB/National parks/Heritage Coast etc. was introduced because it is flat and low-lying and therefore doesn't fit with the romantic concept of beauty in either art or the landscape. The methodology is unacceptable and needs to be changed to reflect the criteria in GLVIA3.

- 15.22. Table 20.12 Susceptibility of receptors: Some indication of what the 'undue consequences' identified as criteria are likely to be. As described at para 20.6.36 'The susceptibility of designated landscapes is influenced by the nature of the special qualities and purposes of designation and/or the valued elements, qualities or characteristics, indicating the degree to which these may be unduly affected by the proposals'. The criteria for susceptibility for all landscapes, whether designated or not, should be based on an analysis of their character, qualities, features how these are susceptible to the particular development proposed.
- 15.23. Table 20.13 CBC concurs with ECC/MDC that all assessments (whether for value, susceptibility, sensitivity or visual impact) are carried out on a five-point scale, instead of the 3-point scales highlighted in Table 20.12, 20.13, and 20.14.
- 15.24. Table 20.15 CBC concurs with ECC/MDC that the 'Scale of Effect' table doesn't allow for accuracy above a level of 'medium', which given the nature of the development doesn't make any logical sense. CBC agrees that an additional stage is added (Medium-Large or similar) to ensure equal stages are available throughout the scale to support a robust assessment
- 15.25. Para 20.6.62 CBC concurs with ECC/MDC that the Residential visual amenity assessment (RVAA) study area should extend out approximately 2km from the main development site but include the seaward-facing properties in West Mersea. The Landscape Institute Technical Guidance Note on Residential Visual Amenity Assessment indicates that a preliminary study area of 1.5-2km radius should be appropriate "to begin to identify properties for inclusion in the RVAA, when considering relatively conspicuous structures." (CBC underling for emphasis). Exclusion of West Mersea properties does not take into consideration the open views of the proposal from e.g., residents on Coast Road, Mersea. We would therefore insist the study area is extended and appropriate West Mersea receptors are included within the RVAA study area (extent to be agreed with CBC).
- 15.26. Para 20.6.92 The use of photo wires and photomontages as visualisation representation is welcomed. However, the methodology for production of visualisations should also refer to (AVR classification Levels of Detail). To ensure sufficient details of the structures are available to give an accurate review of the proposal, the Councils ask that AVR Level 3 is used on all proposed photomontages.
- 15.27. Para 20.8 This section relies on the input and outcomes of the emerging Design Principles. It is considered the Design Principles taken forward are not measurable, responsive or accountable. There holds a risk of abortive work where past principles are being pushed and the applicant is not responsive to feedback received in response to the Stage 1 Consultation.

## 16. Recreation (21)

### Generally

- 16.1. The Councils are concerned that this Chapter is too narrow in its focus for the recreational baseline. There is a real risk that this will undermine the forecasting of the scheme's impact and would result in adverse effects that are not adequately mitigated.

### Detailed comments:

- 16.2. Table 21.1 Legislation and policy: The relevant NPPF paragraphs should also include reference to Paragraph 170 'maintaining the character of the undeveloped coast, while improving public access to it...'; Paragraph 91 'enable and support healthy lifestyles...for example through the provision of safe and accessible green infrastructure...' Paragraph 98 ' Planning policies and decisions should protect and enhance public rights of way and access, including taking opportunities to provide better facilities for users, for example by adding links to existing rights of way networks...'. Paragraph 102 'opportunities to promote walking, cycling and public transport use ...';
- 16.3. Table 21.1 Legislation and policy: More emphasis should be put on CBC emerging Local Plan which is at an advanced stage of preparation.
- 16.4. Para 21.2.3 CBC is supportive of developing a bespoke approach to assessment to include users of the marine environment.
- 16.5. Table 21.2 CBC supports the use of existing Green infrastructure strategies as a source of information to inform the baseline.
- 16.6. Table 21.3 CBC supports the MMO's calls for engagement with local sailing clubs, marinas and RYA to understand the impacts to sailing and other marine activity. Clubs around the north side of the Blackwater Estuary, notably West Mersea Yacht Club should be core to these consultations. A regular short-day sail is from Mersea Yacht Club to Bradwell. CBC reiterates its calls for any mitigation or compensation package to include off-site mitigation or compensation for any indirect impacts on West Mersea to the existing tourism or recreation offer.
- 16.7. Para 21.4.2 CBC welcomes the identification of a 12 nautical mile study/search area to establish patterns of offshore use and potential receptors, as well as a wider study area that aligns with the visual assessment study area and that might be subject to significant visual effects..
- 16.8. Table 21.6 Further surveys and studies: these appear to be focussed on the main development site only but as identified at 21.4.2 needs to extend to cover the wider study area in order to understand the scale of usage, and therefore potential impact, particularly on the River Blackwater itself, but also in the summer months on West Mersea.
- 16.9. Table 21.7 CBC has great concerns that only users of nationally or promoted long-distance paths or routes or those taking part in promoted events or where there are no alternative resources are considered highly sensitive. These assessment criteria seriously undervalue everyday outdoor recreational activity that is so vital to local communities especially in a post-Covid world. All casual recreational users of the outdoor environment on PRoW and Open space are considered highly sensitive for the purposes of LVIA and it is CBC's position that this approach should hold for the recreational assessment.
- 16.10. Table 21.9 Recreational receptors should include users of accessible greenspace, beachside and PRoW in West Mersea as well.

- 16.11. Para 21.8 Potential mitigation: This makes no mention of compensation for effects on amenity recreation of users on the north side of the Blackwater Estuary and users of the River Blackwater who may have to sail in different parts of the estuary, either temporarily or permanently. A compensation package should be made available for recreational impacts that cannot be mitigated.

## **17. Historic Environment (22)**

### Generally

- 17.1. There do not appear to be any enabling works in Colchester Borough and, therefore, there will be no direct impacts on buried terrestrial archaeological remains with the Borough (unless proposals, and therefore impacts, change).
- 17.2. The exception to this concerns the archaeological remains preserved within the intertidal zone (the marine/terrestrial interface) around the Borough. This includes fragile, waterlogged structural features that are potentially of high evidential value. There is one Scheduled Monument on the edge of the intertidal zone off West Mersea, NHLE no. 101904, Coastal fish weirs at West Mersea, 570m south east of St Peter's Well, and there is potential for other significant archaeological remains to be identified in this area. The impact of the proposed marine infrastructure on these - and any other - archaeological remains, within this zone must be fully assessed and modelled, including assessment of potential changes to the erosion patterns that could have a direct impact on archaeological remains; appropriate mitigation measures will need to be proposed and agreed. The 'direct effects study area' will need to extend sufficiently to capture these remains in the assessment.
- 17.3. The main impact – and potential harm - of the proposed development to the historic environment in the Borough - is in terms of the indirect and visual impacts on the setting of heritage assets and the wider historic landscape – the cumulative impact of the development on/adjacent to the existing facilities/structures at Bradwell and the impact of the associated construction facilities, for example, the new accommodation facilities and also sea transport facilities.
- 17.4. A detailed heritage impact assessment must be prepared as part of the Environment Assessment. This work will need to adequately identify the designated heritage assets that will be impacted, their significance, their setting and the contribution the setting makes to their significance, in accordance with the Historic England guidance, "The Setting of Heritage Assets Historic Environment Good Practice Advice in Planning Note 3 (Second Edition, 2017)".
- 17.5. The assessment will need to establish the impact, and the level of harm, on these heritage assets; clearly, some heritage assets will require more detailed assessment than others and this work should be based on visual sensitivity, rather than by arbitrary distance from the development ('indirect effects study area'). This must include an assessment of impact to the views from the West Mersea Conservation Area and the overall impact on the estuary that forms the setting of the Conservation Area (townscape and visual impact assessment).



17.6. The work should be supported by comparable photomontages from key locations and the Council would be pleased to work with the applicant to agree the scope of the heritage impact assessment and to identify these locations in the Borough (key receptors). The key aim will be to ensure the visual impacts of the development proposals are fully identified, critically assessed and properly mitigated.

Detailed comments:

17.7. Table 22.4 CBC supports ECC/MDC in their call for detailed assessments of the intertidal areas including geotechnical work, interpretative mapping of former coastlines, islands etc, a shoreline assessment, use of a geo-archaeologist, geophysics surveys, tidal and erosion surveys and setting assessments of heritage assets. It is imperative that the latter includes relevant heritage assets within Colchester borough.

17.8. Table 22.4 CBC supports ECC/MDC in ensuring that unknown heritage assets and undesignated heritage assets, some of which are of high importance, are given proper attention within the assessment methodology.

17.9. Para 22.4.3 CBC concurs that the use of a 12km-radius study area for identifying heritage assets potentially harmed through change to setting should be adequate

17.10. Para 22.6.2-6 *Assessment of effects and determining significance* CBC concurs with ECC/MDC that in order to determine significance and assessing the magnitude of change you first have to understand the heritage asset or assets, and that will not be possible until a full and detailed baseline assessment has been undertaken

17.11. Para 22.8.1 CBC supports ECC/MDC position that care is needed to ensure that mitigation measures such as mounding, planting or other structural landscape works do not result in harm to the significance of heritage assets by detracting from their open landscape settings which are characteristic of the natural landscape.

17.12. Table 22.9 *Planned further surveys and studies* CBC supports ECC/MDC in calling for the baseline assessment to cover the entire development area, including marine, inter-tidal and terrestrial environments, and the interactions between the three, and that this work needs to be undertaken as early as possible within the DCO process to facilitate an understanding of the potential impacts and effects of the proposals.

## 18. **Biodiversity (23)**

Generally

18.1. CBC supports ECC/MDC in their concern that the Scoping Report does not demonstrate that project will take advantage of opportunities to conserve and enhance biodiversity conservation interests. For a project of this scale, ECC/MDC have identified that they expect it to deliver offsite opportunities for Biodiversity Net Gain up to 25% in perpetuity as its legacy. CBC would expect some of those offsite opportunities should be delivered on the north shore of the Blackwater Estuary, including appropriate areas around Mersea Island.

18.2. Para 23.1.4 CBC welcomes the identification of an avian noise assessment which is to be conducted in tandem with over-wintering bird

surveys. CBC has particular concern in the potential negative impacts from the power station proposal on statutory designated sites for nature conservation, particularly Special Areas of Conservation (SAC), Special Protection Areas (SPA), and Ramsar sites which fall within the Blackwater Estuary.

- 18.3. Para 23.1.5 CBC welcomes that an Habitats Regulation Assessment (HRA) is running in parallel to the ornithology assessment for the Environmental Impact Assessment (EIA) which encompasses the same European Sites detailed within this chapter and addresses the relevant terrestrial and freshwater ecology and ornithological qualifying features.
- 18.4. Para 23.1.7 CBC notes that the HRA Evidence Plan (EP) has identified a number of potential likely significant effects.
- 18.5. Table 23.1 The Scoping Report should also reference in detail the relevant policy in the emerging Local Plan for CBC as this document is now at an advanced stage and is likely to form the relevant policy document at the time of determination for the application.
- 18.6. Table 23.12 CBC notes the range of international ecological features within CBC boundaries that are subject to potential effects. These include Blackwater SPA, Colne Estuary SPA, Blackwater Estuary Ramsar Site, Colne Estuary Ramsar site, Abberton Reservoir Ramsar site, and Essex Estuaries SAC. These qualifying features relate to internationally important bird assemblages, invertebrate communities, and coastal habitats.
- 18.7. Table 23.13 CBC notes the likely significant biodiversity effects on statutory designated conservation sites include pollution caused by construction activities, visual and noise (including vibration) disturbance, habitat change and degradation (including through indirect effects such as increased artificial lighting) and welcomes that there are no effects that are to be scoped out of the assessment at this stage.
- 18.8. CBC is concerned that Para 23.8 talks more about potential mitigation and compensation rather than net gain for biodiversity or enhancement measures, including habitat creation. The document talks about producing overall Net Gain for biodiversity in the long-term but does not state that it will be measurable nor what the scale of the gain is that is being aimed for. CBC supports ECC/MDC's desire for up to 25% ecological gain for a project of this size. CBC suggests that, as a minimum, the EIA should set out the parameters for how the net gain will be generated, what habitats are to be created and where, and use a recognised metric to demonstrate an indicative net gain scenario for the project. The area for search for suitable sites for net gain creation should not be limited to 100m from the site boundary.

## **19. Marine Ecology and fisheries (24)**

- 19.1. CBC acknowledges that it does not have the expertise in marine ecology and fisheries and assessment methodologies, and will defer to the advice of expert organisations, such as the Environment Agency and Natural England at this stage.



# DANBURY PARISH COUNCIL

Parish Office

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Environmental Services

Central Operations

Temple Quay House

2 The Square

Bristol

BS1 6PN

21<sup>th</sup> October 2020

Dear Sir/Madam

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

**Application by Bradwell Power Generation Company Ltd (the Applicant) for an Order granting Development Consent for the Bradwell B New Nuclear Power Station (the Proposed Development)**

Thank you for consulting Danbury Parish Council for the Scoping Opinion as to the information to be provided in an Environmental Statement (ES) relating to the Proposed Development.

1. The A414 through Danbury is being considered as a route for construction traffic into Bradwell B during the Early Years Construction Phase and may also be impacted by additional traffic flows due to employees travelling to the site.

**2. Introduction to Danbury**

2.1. The A414 through Danbury, 5 miles to the East of Chelmsford and 5 miles from the West of Maldon, is a gateway to Maldon and the Dengie Peninsula, surrounding villages such as Little Baddow and Woodham Walter, and Chelmsford and the A12. The A12 connects London to Lowestoft and destinations in between, including Colchester, Ipswich, Harwich and Felixstowe Docks, the A120 (for Stansted Airport) and the A130 (Basildon and Braintree). There are also quarries at both ends of the village and HGV quarry traffic travels along the A414 carrying aggregates between sites.

2.2. High volumes of traffic (including HGVs and quarry traffic) travel through Danbury, causing congestion, pollution and long queues throughout the day - particularly during the AM and PM peak travel times.

2.3. There are direct rail transport links into London, Ipswich, Norwich and Clacton on Sea from Chelmsford Railway Station which is located 2.5 miles from a Park Ride that serves the City Centre and bus and railway stations.

2.4. Home to around 6,500 residents, Danbury is one of two key service settlements in the South and East Chelmsford area. It is home numerous nationally designated heritage (more than 50 listed buildings mostly

Web: [www.danbury-essex.gov.uk](http://www.danbury-essex.gov.uk)

Parish Office Open: Monday to Friday 9.15am until 1.00pm

Parish Clerk: Michelle Harper



# DANBURY PARISH COUNCIL

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situated along the A414) and environmental assets (Registered Parks and Gardens, SSSIs and Ancient Woodland.) Along the route of the A414 through the village are 2 primary schools, churches, a large medical centre, retail premises, small businesses and recreational facilities.

2.5. Pollution in the village is a concern as there is an Air Quality Management Area (AQMA) along a stretch of the A414.

### **3. Response to the Consultation**

3.1. Danbury Parish Council considers that the impacts on Danbury are largely ignored or their importance minimised.

3.2. The following should be included in the ES:

**1. Danbury should be shown in the most relevant maps and not greyed out or with its name obscured by other details.**

Danbury occasionally appears in figures such as 3.5 but in most is shown in such a faint grey as to dismiss its presence, or the name is obscured by other details. In most relevant maps it is not named at all: 3.1,3.3,6.3,6.7,6.8,6.12,8.4 to 8.8 which also makes any effects on the village seem unimportant.

**2. Mitigation for effects on using the A414 as an in going route.**

3.3.11 to 3.6.41 have no mention of mitigation for effects on using A414 as in-going route.

**3. Mitigation suggestions for the Air Quality Management Area (AQMA) on the A414 Maldon Road between Eves Corner and Butts Lane.**

6.8 says expanded bus services through Danbury are being investigated but nowhere is the acknowledged AQMA on Maldon Road given mitigation suggestions.

**4. 2025 is now impossible for deployment of Bradwell and the new date is 2035. What investigations will assess the impact of new developments along the A414 by then.**

3.3. The Parish Council would like to make the following additional comments:

**1.** EIA - what body decides the degree of significance of impacts? What independence does the body carrying out the investigation have? What effects will 31.12.20 and the ending of the transition period for leaving EU have?

**2.** "Critical preliminary work" being done before development consent is given would urge a final acceptance. See HS2.

Web: [www.danbury-essex.gov.uk](http://www.danbury-essex.gov.uk)

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Parish Clerk: Michelle Harper



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3. 3.1.9 - it should not be the applicant who decides whether further scoping is required.
4. Appendix 6B –A414 Controlled Crossing: *'zebra crossing located on the A414 to the west of the A414 Bell Lane/Well Lane roundabout 'should read; 'zebra crossing located on the A414 to the west of the A414 Bell **Hill**/Well Lane roundabout '*

Your faithfully,

Lesley Mitchelmore

Assistant Clerk to Danbury Parish Council.

Web: [www.danbury-essex.gov.uk](http://www.danbury-essex.gov.uk)

Parish Office Open: Monday to Friday 9.15am until 1.00pm

Parish Clerk: Michelle Harper

**Marnie Woods**

Senior EIA Advisor  
The Planning Inspectorate  
Environmental Services  
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2 The Square  
Bristol

*jameslawson@lppartnership.co.uk*

Tel 01206 835150

Co. Reg. No. 5677777

6<sup>th</sup> November 2020

Dear Mrs Woods,

**Planning Act 2008 (as amended) & The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (Regulations 10 & 11) : Application by Bradwell Power Station Company Ltd for a Development Consent Order – Scoping Consultation response on behalf of The East of England Ambulance Service NHS Trust \***

1. Thank you for notifying the East of England Ambulance NHS Trust (EEAST) in its capacity as a 'consultation body', of Bradwell Power Generation Company Ltd (the applicant's) request for a Scoping Opinion from the Planning Inspectorate (PINS) on behalf of the Secretary of State.
2. As EEAST's planning advisor in relation to this matter, we are pleased to outline the main engagement and information parameters and requirements to be included within the scope of the applicant's Environmental Impact Assessment (EIA) process, and Environmental Statement (ES) in relation to the proposed nuclear power station development (Bradwell B) and set out the key areas below.

**East of England Ambulance Service NHS Trust**

3. EEAST provides emergency and urgent care services throughout Bedfordshire, Cambridgeshire, Essex, Hertfordshire, Norfolk and Suffolk, and transports patients to 17 acute hospitals amongst other healthcare settings, including within the EEAST Mid and South Essex area covering the location of the proposed nuclear power station at Bradwell-on-Sea.
4. EEAST covers an area of approximately 7,500 sq miles with a resident population of over six million people, and employs approximately 4,000 staff operating from 130 sites who are supported by dedicated volunteers.
5. The 999 service is free for the public to call and is available 24 hours a day, 7 days a week, 365

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Managing Director:  
John Lawson, BA(Hons) MPhil MRTPI

Director  
James Lawson, BA(Hons) MA MRTPI

Technical Director:  
Georgina Brotherton, BSc(Hons) MSc MRTPI

Associate Director:  
Sharon Lawson, BA(Hons) DipTP MRTPI

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Colchester, Essex, CO4 9YQ  
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days a year, to respond to the population with a personalised contact service when patients:

- ❖ Require rapid transportation with life threatening illness/injury or emergencies - category 1 & 2;
  - ❖ Present with lower acuity urgent and less urgent conditions - category 3 & 4 requiring clinical interventions;
  - ❖ Patients may be passed to 999 via other NHS health care systems, including NHS 111;
  - ❖ EEAST receives over 1 million emergency (999) calls per year and 800,000 calls for patients booking non-emergency transport;
6. EEAST also provides urgent and emergency responses to Healthcare Professionals requiring ambulance assistance, and inter-facility transfers between hospitals and other healthcare settings, where patients require treatment at alternative sites to their current setting.
7. Non-Emergency Patient Transport Services (NEPTS) provide an essential lifeline for people unable to use public or other transport due to their medical condition. These much-needed journeys support patients who are;
- ❖ Attending hospital outpatient clinics;
  - ❖ Being admitted to or discharged from hospital wards;
  - ❖ Needing life-saving treatments such as radiotherapy, chemotherapy, renal dialysis or DVT treatment;
8. Further details of EEAST's service remit, priorities, staff, fleet and estate assets, service targets, and co-working relationship with other healthcare and blue light partners are set out for information at [Annex 1](#).

### **Bradwell B Proposals – Project Overview**

9. It is evident from the applicant's scoping report that the Bradwell B project incorporates the following main elements;
- ❖ The Power Station – located on land within the main development site, adjacent to the existing decommissioned facility (Bradwell A);
  - ❖ Temporary Construction Facilities – required for the construction of the power station within the main development site;

- ❖ Off-Site Power Station Facilities – permanent facilities located away from the main development site, essential for the safe operation of the new power station;
- ❖ Off-Site Associated Development – comprising development to support the construction/ operation of the new power station, e.g. park & ride facilities for construction workers, freight management facilities, worker accommodation & both on-line & off-line highway & junction works;

10. There are three main phases of the Project comprising the construction, operation and restoration of the main development site, and the estimated timelines for each phase are summarised below;

#### **Construction Phase – 9 to 12 years (5 phases)**

- ❖ Site preparation & enabling works – 24 to 36 months;
- ❖ Civil construction – 29 to 38 months;
- ❖ Installation – 27 to 33 months;
- ❖ Commissioning – 14 to 20 months;
- ❖ Site restoration – 24 to 36 months;

#### **Operational & Decommissioning Phases**

- ❖ Operational period is anticipated to be 60 years from reactor commissioning;
- ❖ Decommissioning process comprising a phased programme of activities including the clearance of buildings & infrastructure – subject to a separate consent & not part of the DCO process with no information provided at this stage;

#### **Key Potential Impacts On EEAST Service Areas**

##### **Environmental Effects**

11. The applicants Scoping Report acknowledges that there would be significant environmental effects (impacts) arising from the project, and a number of key impact parameters of relevance to EEAST's service provision, including those set out in the project overview and transport sections (Chapters 3 & 6) are summarised below;
- ❖ A peak (worst case) construction phase workforce of up to 10,600 workers;
  - ❖ Temporary accommodation for up to 4,500 construction workers, including inhouse health services;



- ❖ 900 permanent staff rising to 1,900 during planned refuelling & maintenance 'outages' at 18 month intervals;
- ❖ A substantial & at this stage unspecified level of landraising, earthworks, potential marine dredged aggregate, along with imported bulk fill, aggregate, cement, steel & other construction material to be transported to the site;
- ❖ Use of beach landing facilities, HGV transit/ haulage, & rail (if determined to be feasible) & civil engineering structures to import materials to the site, incorporating Abnormal Indivisible Loads (AIL's);
- ❖ Between 500 to 700 two – way HGV movements per day (250 – 350 movements each way) are estimated at this stage during the peak construction period, subject to the final modal split;
- ❖ An acknowledgement that the local roads between the main development site & the strategic road network (A12 & A130) are physically constrained in places, with potential HGV routes passing through a number of communities;
- ❖ A requirement for mitigation through a range of strategic highway interventions, including new bypasses, on & off – line highway improvements & realignments, signalling, signage, pedestrian crossing & traffic management measures;
- ❖ Off site rail infrastructure to be confirmed;
- ❖ The development of temporary freight management facilities on or in close proximity to the designated HGV routes, with potential co-located park & ride facilities, along with driver welfare facilities & materials storage depots;
- ❖ Three areas of search for park & ride facilities including South Woodham Ferrers with car parking for 3,250 spaces, Maldon (2,500 spaces) & Chelmsford (2,600 spaces);
- ❖ A separate construction workforce car park of potentially up to 1,500 spaces;
- ❖ One or more freight management facilities with HGV parking for 100 spaces & driver welfare facilities;
- ❖ A construction management traffic plan, transport strategy for the construction workforce along with a related travel plan is envisaged;

### Social Effects

12. Having summarised key areas of physical development and transport logistics - the “environmental effects” which have the potential to have a “major adverse effect” on EEAST’s service provision, it also necessary to consider the population increase and associated activities - potential “social effects” and whether they may also potentially give rise to “major adverse effects”.
13. Chapters 10, 11 and 13 of the applicant’s scoping report consider the potential socio-economic, health and major accidents & disasters effects (impacts), and a number of key areas of relevance to EEAST are summarised below.
  - ❖ The assumed socio – economic, health & major accidents & disaster baselines & proposed study areas;
  - ❖ The potential increased demand for health & community services;
  - ❖ In particular, the potential for an infectious disease pandemic;

### EEAST Information Parameters & Requirements - Requested Inclusion in the Scope of the EIA Process & Environmental Statement

14. In the light of the environmental and social effects (impacts) potentially arising from the Bradwell B nuclear development proposal on EEAST’s service areas, the following engagement, approach, information parameters and requirements are identified at this stage for inclusion in the applicants EIA process and ES work to inform a suitable mitigation strategy;
  - ❖ Early engagement with EEAST to achieve a clear understanding of its ‘pre’ & ‘post’ Covid - 19 baseline capacity (i.e. staff, fleet & estate assets) service needs, demands & priorities;
  - ❖ Identification of key environmental & social effects impacting on EEAST from an emergency response perspective, including travel time delay, & increased service draw down related to;
    - Off – site highway infrastructure proposals;
    - Construction material transport logistics;
    - Abnormal Indivisible Loads (AIL’s);
    - Off – site transport & depot storage facilities;
    - Construction & operational phase workforce accidents & welfare - including specialist resources required to attend to the related activities on land & at sea;
    - The current & future Coronovirus pandemic(s);
  - ❖ Scoping work to identify a suitable study area, baseline assessment parameters & a methodology to identify the likely environmental & social effects of the development on EEAST, including measures to avoid, reduce, mitigate & compensate for such potential

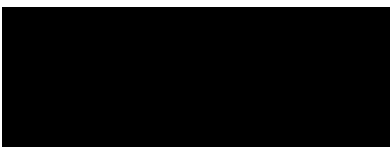
effects (summarised above) during the construction, operational & site restoration phases of the development – EEAST are developing a methodology to assist this process;

- ❖ Establish suitable parameters through Section 106 Heads of Terms of Agreement - to provide funding & new facilities provision to augment EEAST’s staff, fleet & estate assets;
- ❖ The establishment of appropriate Terms of Reference & Membership for a Transport, Health & Wellbeing Group – to include EEAST as a key healthcare & emergency service provider, along with its ‘blue light partners’ (such as the local clinical commissioning group, Essex Constabulary & Essex Fire & Rescue);

### Concluding Remarks

15. EEAST welcomes notification of the Bradwell B Project, and is pleased to assist PINS in preparing its Scoping Opinion, following the request received from the Bradwell Power Generation Company Ltd.
16. EEAST considers that the Bradwell B Project is likely to give rise to “major adverse environmental and social effects” which would in turn seriously impact on EEAST’s service provision, and ability to meet and deliver its targets and priorities as a key healthcare and emergency service provider.
17. EEAST is being acutely impacted by the current Coronavirus Pandemic, and it is hoped that with an appropriate level of engagement and liaison with the applicant as outlined above, that suitable measures can be identified and agreed, to seek to avoid, reduce, mitigate, and if necessary, compensate for the impacts arising from the proposals.
18. We trust this is of assistance and look forward to receiving an acknowledgement that the submission has been received, and included in the PINS scoping opinion response to the applicant.

Yours sincerely



**James Lawson**  
**Lawson Planning Partnership Ltd**

**Cc PINS, East Suffolk Council & EEAST**

## ANNEX 1

### EEAST KEY FACTS & SERVICE INFORMATION

**This section summarises EEAST's service remit, priorities, staff, fleet & estate assets, & co-working relationship with other healthcare & blue light partners & service targets**

#### Service Remit & Priorities

The East of England Ambulance Service NHS Trust provide accident and emergency services and non-emergency patient transport services across the East of England,

The Trust Headquarters is in Melbourn, Cambridgeshire and there are Ambulance Operations Centres (AOC) at each of the three locality offices in Bedford, Chelmsford and Norwich who receive over 1 million emergency calls from across the region each year, as well as 800,000+ calls for patients booking non-emergency transport.

The 999 service is part of the wider NHS system providing integrated patient care. Provision of 999 services is aligned closely with national and regional initiatives driven by:

- ❖ Sustainability and Transformational Partnerships;
- ❖ Integrated Care System;
- ❖ Integrated Urgent Care systems - i.e. NHS 111, Clinical Assessment Services, Urgent Treatment Centres, GP Out of Hours Services;

Additionally, regional Ambulance Trusts may collaborate closely with other ambulance services, the wider emergency services or wider system providers to deliver appropriate patient care.

To support the service transformation agenda, the key requirements are:

- ❖ To deliver the core response and clinical outcome standards as defined by the Ambulance Response Programme;
- ❖ To fulfil statutory duties relating to emergency preparedness, resilience and response (EPRR);

- ❖ Optimisation of call handling and appropriate responses through virtual alignment of NHS 111/999 and call/ CAD transfer between ambulance services;
- ❖ Increase the percentage of lower acuity calls managed through “hear and treat” and “see and treat” options;
- ❖ Utilise a virtual delivery model to support wider workforce integration for paramedics, call handlers and specialist staff with local urgent care delivery models;
- ❖ Facilitate cross boundary working and the flexible use of ambulance service resources to support the development of regional Sustainability and Transformational Plans and Integrated Care Systems.

The 999 service is free for the public to call and is available 24 hours a day, 7 days a week, 365 days a year, to respond to the population with a personalised contact service when patients:

- ❖ Require rapid transportation with life threatening illness/injury or emergencies -category 1 & 2;
- ❖ Present with lower acuity urgent and less urgent conditions -category 3 &4 requiring clinical interventions;
- ❖ Patients may be passed to 999 via other NHS health care systems, including NHS 111;
- ❖ EEAST receives over 1 million emergency (999) calls per year and 800,000 calls for patients booking non-emergency transport;

EEAST also provides urgent and emergency responses to Healthcare Professionals requiring ambulance assistance, and inter-facility transfers between hospitals and other healthcare settings, where patients require treatment at alternative sites to their current setting.

Non-Emergency Patient Transport Services (NEPTS) provide an essential lifeline for people unable to use public or other transport due to their medical condition. These much-needed journeys support patients who are;

- ❖ Attending hospital outpatient clinics;
- ❖ Being admitted to or discharged from hospital wards;
- ❖ Needing life-saving treatments such as radiotherapy, chemotherapy, renal dialysis or DVT treatment;

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Service Assets

EEAST clinicians:

- ❖ Emergency Care Support Workers;
- ❖ Emergency Medical Technicians;
- ❖ Paramedics;
- ❖ Specialist Paramedics;
- ❖ Critical Care Paramedics;

Types and models of response:

- ❖ Patient Transport Service (PTS);
- ❖ CRF, Community First Responder (CFR);
- ❖ Clinical Hear and Treat, telephone triage;
- ❖ Early Intervention Team (EIT);
- ❖ Rapid Response Vehicle (RRV);
- ❖ Double Staff Ambulance (DSA);
- ❖ Hazardous Area Response Team (HART);
- ❖ Specialist Operations Response Team (SORT);
- ❖ Helicopter Emergency Medical Service (HEMS) EEAST utilise 3 x HEMS aircrafts within the region;

Ambulance Operations Centre (AOC) staff;

- ❖ 999 Call Handlers;
- ❖ Emergency Medical Dispatchers;
- ❖ Tactical Operations Staff;

EEAST support services staff cover all other corporate and administrative functions across the region.

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Estates – Mid & South Essex – to follow on as supplementary information \*Fleet:

The Trust has 535 Double Staffed Ambulances (DSAs) / Rapid Response Vehicles (RRVs) and 2 x Hazardous Area Response Team (HART) bases with a number of specialist vehicle resources.

Workforce & Equipment

Approximately 4,000 staff. Each resource has equipment specific to the operational function of the vehicle and skill level of the staff.

Specialisms

EEAST works collaboratively across our blue light partners and have joint working groups with Police and Fire Services across the region, working in partnership managing responses to incidents and undertaking joint exercises with our dedicated resources to prepare for specialist rescue, major incidents and mass casualty incidents.

EEAST is a Category 1 Responder under the Civil Contingencies Act, 2004, playing a key role in developing multi-agency plans against the county and national risk registers. EEAST also works closely with the Military, US Air Force, Royal Protection Service and the Port of Felixstowe Police, Fire and Ambulance services.

EEAST's Emergency Preparedness Resilience Response (EPRR) team lead on the Joint Emergency Services Interoperability Principles (JESIP) working in close partnership with all blue light agencies, the Coastguard and Local Authorities. Specialist resources work with the Police in counter terrorism and developing response plans in the event of a major incident.

EEAST are an integral part of the locality's resilience response sitting on a number of safety advisory groups, east coast flood working groups and hospital emergency planning groups.

Co-working Relationship with other Blue-Light & Healthcare Partners

EEAST is an integral part of the wider healthcare system working closely with the Mid and South Essex Integrated Care System (ICS) and Clinical Commissioning Groups (CCGs) to deliver emergency and urgent care and are key stakeholders in supporting wider healthcare initiatives.

Within Mid and South Essex, EEAST work with the CCGs in delivering additional care pathways focussing on hospital admission avoidance, this is a partnership with the local acute providers and local authorities. EEAST operate Early Intervention Response vehicles and a Rapid Intervention

Vehicle. These resources work collaboratively within the system to offer holistic care to patients whilst reducing pressure on Emergency Departments.

This is EEAST's response to the requirements of the NHS Long Term Plan, with the clear narrative that in order to bring the NHS into financial balance all NHS providers must find mechanisms to treat patients in the community and out of the most expensive care setting, which are acute hospitals. This not only saves the NHS critical funding, but it also improves patient outcomes.

EPRR and Specialist Operations teams routinely train with other blue light agencies in preparedness for major incidents such as terrorist attacks and major incidents with statutory training obligations to respond to local and national incidents.

In continuing to respond to the COVID-19 Pandemic, EEAST is working collaboratively with Private Ambulance providers, the Military, volunteer Ambulance Services (such as St John Ambulance and British Red Cross) and local Fire and Rescue Services, to increase its capacity and maintain service delivery to meet the additional demand.

#### EEAST Service Targets

All NHS organisations are required to report against a set of Core Quality Indicators (CQIs) relevant to their type of organisation. For ambulance trusts, both performance and clinical indicators are set as well as indicators relating to patient safety and experience.

NHS organisations are also required to demonstrate their performance against these indicators to both their commissioners and Regulators (NHS England / Improvement).

It is important to note that EEAST is also measured on how quickly a patient is transported to an appropriate location for definitive care, often in time critical circumstances.

Failure to deliver against these indicators will result in a Contract Performance Notice and could result in payment being withheld, as prescribed in NHS Standard Contract 20/21 General Conditions (Full Length) GC9 9.15



**Table 2 – Eeast Operational Standards Thresholds**

Operational Standards	Threshold	Method of Measurement	Consequence of Breach	Timing of Application of Consequence	Application
Ambulance Service Response Times					
Category 1 (life-threatening) calls – proportion of calls resulting in a response arriving within 15 minutes **	<b>Operating standard that 90th centile is no greater than 15 minutes</b>	See AQI System Indicator Specification at: <a href="https://www.england.nhs.uk/statistics/statistical-work-areas/ambulance-quality-indicators/">https://www.england.nhs.uk/statistics/statistical-work-areas/ambulance-quality-indicators/</a> Review of Service Quality Performance Reports	Issue of a Contract Performance Notice and subsequent process in accordance with GC9. For each second by which the Provider's actual 90 <sup>th</sup> centile performance exceeds 15 minutes, £2.50 per 1,000 Category 1 calls received in the Quarter	Quarterly	AM
Category 1 (life-threatening) calls – mean time taken for a response to arrive **	<b>Mean is no greater than 7 minutes</b>	See AQI System Indicator Specification at: <a href="https://www.england.nhs.uk/statistics/statistical-work-areas/ambulance-quality-indicators/">https://www.england.nhs.uk/statistics/statistical-work-areas/ambulance-quality-indicators/</a> Review of Service Quality Performance Reports	Issue of a Contract Performance Notice and subsequent process in accordance with GC9	Quarterly	AM
Category 2 (emergency) calls – proportion of calls resulting in an appropriate response arriving within 40 minutes **	<b>Operating standard that 90th centile is no greater than 40 minutes</b>	See AQI System Indicator Specification at: <a href="https://www.england.nhs.uk/statistics/statistical-work-areas/ambulance-quality-indicators/">https://www.england.nhs.uk/statistics/statistical-work-areas/ambulance-quality-indicators/</a> Review of Service Quality Performance Reports	Issue of a Contract Performance Notice and subsequent process in accordance with GC9. For each second by which the Provider's actual 90 <sup>th</sup> centile performance exceeds 40 minutes, £2.50 per 1,000 Category 2 calls received in the Quarter	Quarterly	AM
Category 2 (emergency) calls – mean time taken for an appropriate response to arrive **	Mean is no greater than <b>18 minutes</b>	See AQI System Indicator Specification at: <a href="https://www.england.nhs.uk/statistics/statistical-work-areas/ambulance-quality-indicators/">https://www.england.nhs.uk/statistics/statistical-work-areas/ambulance-quality-indicators/</a> Review of Service Quality Performance Reports	Issue of a Contract Performance Notice and subsequent process in accordance with GC9	Quarterly	AM
Category 3 (urgent) calls – proportion of calls resulting in an appropriate response arriving within 120 minutes **	<b>Operating standard that 90th centile is no greater than 120 minutes</b>	See AQI System Indicator Specification at: <a href="https://www.england.nhs.uk/statistics/statistical-work-areas/ambulance-quality-indicators/">https://www.england.nhs.uk/statistics/statistical-work-areas/ambulance-quality-indicators/</a> Review of Service Quality Performance Reports	Issue of a Contract Performance Notice and subsequent in process accordance with GC9. For each second by which the Provider's actual 90 <sup>th</sup> centile performance exceeds 120 minutes, £2.50 per 1,000 Category 3 calls received in the Quarter	Quarterly	AM
Category 4 (less non-urgent "assess, treat, transport" calls only) – proportion of calls resulting in an appropriate response arriving within 180 minutes **	<b>Operating standard that 90th centile is no greater than 180 minutes</b>	See AQI System Indicator Specification at: <a href="https://www.england.nhs.uk/statistics/statistical-work-areas/ambulance-quality-indicators/">https://www.england.nhs.uk/statistics/statistical-work-areas/ambulance-quality-indicators/</a> Review of Service Quality Performance Reports	Issue of a Contract Performance Notice and subsequent process in accordance with GC9. For each second by which the Provider's actual 90 <sup>th</sup> centile performance exceeds 180 minutes, £2.50 per 1,000 Category 4 calls received in the Quarter	Quarterly	AM

Reference: EN010111\_000041\_201009

Marnie Woods  
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6 November 2020

Dear Marnie Woods,

**Bradwell B New Nuclear Power Station – EIA Scoping Opinion Consultation  
Response**

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

Thank you for consulting the Environment Agency on the EIA Scoping Opinion relating to the proposed Bradwell B New Nuclear Power Station.

**Our role on nuclear sites**

We have two primary roles with regard to our work on nuclear sites.

We are a statutory consultee in the planning process. We provide advice and guidance to the planning decision maker on environmental matters that sit within our remit, in relation to our role in protecting people and the environment.

We are the environmental regulator of the nuclear industry in England. This means that we make decisions under the relevant legislation about whether environmental permits or licences should be issued to potential and existing operators of nuclear sites; and what conditions any granted permits should contain, to protect properly people and the environment.

Our regulation includes disposals and discharges of radioactive waste, discharges of cooling and process water, operation of standby generators and other environmental matters such as discharge of surface waters and effluents during construction.

We work closely with the Office for Nuclear Regulation (ONR), who regulate safety and security, to ensure that any new nuclear power stations meet high standards of safety, security, environmental protection and waste management.

## **Information we consider should be provided in the Environmental Statement**

The Environmental Statement should describe, respond to, or be accompanied by the findings of other relevant assessments including:

- Habitats Regulations Assessment
- Marine Conservation Zone Impact Assessment
- Water Framework Regulations Assessment
- Flood Risk Assessment
- Eels Regulations Assessment

This includes for the project, and in-combination with requisite environmental permits and any supporting town and country planning applications.

The Environmental Statement and accompanying information should accurately describe and meet the requirements of these assessments, in particular where there is a need for:

- a precautionary approach
- a hierarchical approach to avoiding, mitigating and compensating for environmental impacts
- considering alternatives
- considering impacts across different phases of the project, such as to the end of the decommissioning period at ~2190 for flood risk.

## **Biodiversity**

The Environmental Statement should describe any effects on the full range of internationally, nationally, and locally designated sites; protected species; and priority habitats and priority species.

This includes:

- Ramsar Sites designated under the Ramsar convention.
- Special Areas of Conservation designated under the Conservation of Habitats and Species Regulations.
- Special Protection Areas designated under the Conservation of Habitats and Species Regulations.
- Marine Conservation Zones designated under the Marine and Coastal Access Act 2009).
- Sites of Special Scientific Interest notified under the Wildlife and Countryside Access Act 1981.
- Local Nature Reserves designated under the National Parks and Access to the Countryside Act 1949.
- Protected species under Wildlife and Countryside Act 1981, Conservation of Habitats and Species Regulations 2010, and specific legislation.
- Priority habitats and priority species listed under Section 41 of the Natural Environment and Rural Communities Act 2006.

It is important that the potential adverse effects from the project on all aspects of biodiversity are considered, not just those that receive statutory protections.

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The project covers a sizeable area that includes habitats of biodiversity value such as intertidal mudflats, and saltmarsh and a number of other linear features such as watercourses, coastal defences and associated grassland corridors.

The Environmental Statement should describe how the project will:

- Minimise the area required for works and minimise the loss of habitats and features of biodiversity value
- Minimise the risk of disturbance or damage to species through use of best practice
- Restore habitats and features where practicable
- Enhance or create new habitats and features where practicable.

There may be sites that will be required for the construction but not the operation of the project. Plans for how the sites could be used afterwards to enhance, restore or create habitats and these contributions secured for the future should accompany the Environmental Statement.

### **Climate Change**

The Environmental Statement should set out how the proposal takes account of the projected impacts of climate change including increased likelihood of flooding, drought, heatwaves, intense rainfall events, and rising sea levels using the most recent UK Climate Projections available.

The project should be resilient to climate change over its full lifetime by responding to climate change through the sustainable use of water and water management infrastructure that accommodates intense rainfall events. The Environmental Statement should describe any adaptation measures needed to ensure resilience and consider any potential impacts in relation to the application as a whole.

### **Coastal Change**

The Environmental Statement should specifically include an assessment of all the effects on the coast. This includes:

- effects on coastal processes and geomorphology in combination with those of climate change
- implications for strategies for managing the coast such as Shoreline Management Plans, Marine Plans, River Basin Management Plans, maintenance programmes for flood and coastal defences
- effects on integrity and special features of designated sites.

It should describe how impacts will be minimised, the mitigation measures proposed, and restoration plans for areas of foreshore disturbed by direct works with details of pre- and post-construction monitoring with defined triggers for intervention and restoration.

The Environmental Statement should describe how the proposals have regard to the Essex and South Suffolk Shoreline Management Plan, which identifies current pressures on the existing sea defence line, erosion of the foreshore, and adverse effects on the natural coastal processes. Coastal interventions including marine landing infrastructure, restoration plans, and long-term management should respond to and accommodate these challenges.

## **Waste**

The Environmental Statement should be accompanied by a description of the arrangements that will be in place to manage the waste produced through the construction and operation. It should describe how the production of waste will be minimised and how any waste produced will be reused, recycled or any other recovery before disposal options are considered.

## **Water Resources**

The Environmental Statement should describe:

- existing quality of waters affected by the proposed project and impacts of the project on the water quality
- existing water resources affected by the proposed project and the impacts of the project on water resources
- existing physical characteristics of the water environment affected by the project and the impacts of physical modifications to these characteristics
- impacts of the proposed project on water bodies or protected areas under the Water Framework Directive

This should include

- existing and new abstraction rates,
- peak daily demand, average annual demand and demand profile
- quantities of water segmented by use and identify where these must be from potable sources or where they can be displaced to non-potable sources
- how the project contributes to, or compromises, objectives in relevant strategies and plans
- measures that will avoid or minimise water use, or maintain or improve water quality.

Appended to this letter are our comments on specific sections of the EIA Scoping Report.

We trust our advice is useful.

Yours sincerely,



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Environment Agency

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**Specific comments on the EIA Scoping Report**

<b>Paragraph Number</b>	<b>Comments</b>
<b>2</b>	<b>Policy and Regulatory Context</b>
2.5.1	The proposed project may require a water abstraction licence, depending on where the developer chooses to locate the cooling water intake.
2.5.9	This should include the environmental permits that may be required that are not already identified as key environmental permits in paragraph 2.5.1, such as waste management permits.
2.7	This section should also include assessments for <ul style="list-style-type: none"> <li>• Countryside and Rights of Way Act (to ensure potential impacts to Sites of Special Scientific Interest (SSSIs) are fully considered.</li> <li>• Eel regulations</li> </ul>
<b>3</b>	<b>The Project</b>
3.4.3	<p>The environmental statement will need to describe</p> <ul style="list-style-type: none"> <li>• The existing quality of waters affected by the proposed project and the impacts of the proposed project on water quality</li> <li>• The existing water resources affected by the proposed project and the impacts of the proposed project on water resources, noting any relevant existing abstraction rates, proposed new abstraction rates and proposed changes to abstraction rates, including any impact on, or use of, mains supplies and have references to Catchment Abstraction Management Strategies.</li> <li>• Existing physical characteristics of the water environment, including quantity and dynamics of flow, affected by the proposed project and any impact of physical modifications to these characteristics</li> <li>• Any impacts of the proposed project on waterbodies or protected areas under the Water Framework Directive.</li> </ul> <p>There is a need to describe the required quantities of potable and non-potable water, describe the quantity of water required for each use or purpose, and describe the water saving and water recycling measures.</p>

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	The Environmental Statement should refer to the relevant Water Resource Management Plan and identify the Water Resource Zone that would supply the development.
3.4.14	The Environmental Statement should consider all mitigation measures that will reduce impacts from this project, including a full appraisal of repulsive technologies such as acoustic fish deterrent (AFD).
3.4.25-3.4.31	All bulk materials being used should be assessed and classified as either wastes or non-waste. Waste management environmental permits should be obtained where appropriate.
3.4.50	This should also include <ul style="list-style-type: none"> <li>• Minimising the environmental impact of waste management activities</li> <li>• Minimise impacts on the capacity of regional strategic waste management assets.</li> </ul>
3.4.52	The waste management strategy must ensure compliance with all relevant regulations. It should also identify, as early as possible, the potential third-party waste management facilities that may be impacted, particularly those that are regionally significant.
3.6.12	The choice of transport option should be influenced substantially by the most environmentally sustainable options for each of the materials streams.
3.6.27	The water environment should be included in the list of sensitive receptors.
<b>8</b>	<b>Air Quality</b>
8.4.11	This paragraph states that air quality effects beyond 5 km are unlikely to be discernible; and no significant effects are expected beyond 2 km. However, SSSI, SPA, SAC, and Ramsar sites are all immediately adjacent to the development area and therefore have the potential to be impacted.
8.6.13	This paragraph should include the intention to apply for an environmental permit for the construction phase if required.
8.6.40	No agreement has been made for excluding combustion plant if it is below 3 MW. There is no minimum for aggregation and temporary plant are not excluded.

	This paragraph is inaccurate and does not reflect the regulatory requirements.
<b>9</b>	<b>Radiological</b>
9.6.19	Reference used is out of date. It should refer to Conservation of Habitats and Species Regulations 2017.
9.6.31	<p>The ONR regulates the management and storage of radioactive on nuclear licensed sites under the nuclear site licence. The Environment Agency regulates any discharges (i.e. to air) associated with the storage of radiological waste (during operation), which we consider and assess as part of a Radioactive Substances Regulations (RSR) environmental permit application.</p> <p>In the absence of any specific information, there is the potential for in-combination impacts under EIA and planning associated with the storage of radioactive waste on site. In view of this, it would seem appropriate to scope in the storage of radiological waste on site into the EIA to account for any potential in-combination considerations.</p>
<b>14</b>	<b>Soils, Geology and Land Use</b>
Table 14.1	<p>The table should also include:</p> <p>A Green Future: Our 25-Year Plan to Improve the Environment (2018) HM Government.  <a href="https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/693158/25-year-environment-plan.pdf">https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/693158/25-year-environment-plan.pdf</a></p> <p>Waste Management Plan for England (2020) Department for Environment, Food &amp; Rural Affairs.  <a href="https://consult.defra.gov.uk/waste-and-recycling/waste-management-plan-for-england/supporting_documents/Waste%20Management%20Plan%20for%20England.pdf">https://consult.defra.gov.uk/waste-and-recycling/waste-management-plan-for-england/supporting_documents/Waste%20Management%20Plan%20for%20England.pdf</a></p> <p>National Planning Policy for Waste (2014) Department for Communities and Local Government.  <a href="https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/364759/141015_National_Planning_Policy_for_Waste.pdf">https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/364759/141015_National_Planning_Policy_for_Waste.pdf</a></p> <p>Circular Economy Package policy statement (2020) Defra, DAERA, Welsh Government and Scottish Government.</p>



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	<a href="https://www.gov.uk/government/publications/circular-economy-package-policy-statement/circular-economy-package-policy-statement">https://www.gov.uk/government/publications/circular-economy-package-policy-statement/circular-economy-package-policy-statement</a>
Table 14.2	<p>Land contamination: risk management has been republished (8 October 2020)  <a href="https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm">https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm</a>.</p> <p>This replaces versions 1 (June 2019) and 2 (May 2020) and the most recently published version should be used.</p>
Table 14.7	What's in Your Backyard is no longer available and other platforms should be used.
Table 14.16	Penetrative techniques such as drilling boreholes or piles may introduce a preferential pathway to the underlying, more sensitive, principal aquifer. A foundation works risk assessment should be carried out and best practice drilling techniques to address risk should be implemented.
14.8.2	<p>The development and implementation of a Code of Construction Practice should incorporate the use of The Definition of Waste: Development Industry Code of Practice (2011) Contaminated Land: Applications in Real Environments.  <a href="https://www.claire.co.uk/component/phocadownload/category/8-initiatives?download=212:definition-of-waste-development-industry-code-of-practice">https://www.claire.co.uk/component/phocadownload/category/8-initiatives?download=212:definition-of-waste-development-industry-code-of-practice</a></p>
<b>15</b>	<b>Water Environment</b>
15.1.2	<p>This paragraph says that the chapter will contain the effects that are proposed to be scoped out of the assessment. However, there is no section within the chapter that identifies or describes the effects that have been scoped out.</p> <p>The reasoning and evidence for scoping out any effects should be included.</p>
Table 15.2	<p>Groundwater Protection: Principles and Practice (GP3) (2013) was withdrawn in 2017 and replaced with a collection of groundwater protection guides  <a href="https://www.gov.uk/government/collections/groundwater-protection">https://www.gov.uk/government/collections/groundwater-protection</a></p> <p>CIRIA C697 The SuDS Manual, this was replaced in 2015 by CIRIA C753.</p>

<p>Table 15.8</p> <p>15.5.64</p> <p>Table 15.15</p>	<p>The table shows river flows for Langford for 1932-1968. There are more recent datasets available.</p> <p>In addition, data from the Ulting flow gauging station for the River Chelmer should be used.</p> <p>Combining the two data sources will inform flow estimates for the River Blackwater estuary.</p>
<p>Table 15.14, 15.18, 15.22, 15.24</p>	<p>2019 WFD Status is now available through the Catchment Data Explorer and should be considered.</p>
<p><b>16</b></p>	<p><b>Flood Risk</b></p>
<p>Chapter 16</p>	<p>Neither chapter 15 nor chapter 16 considers infiltration for the proposed project. Sustainable drainage systems for the main development and associated development sites should consider:</p> <ul style="list-style-type: none"> <li>• Infiltration sustainable drainage systems (SuDS) such as soakaways, unsealed porous pavement systems or infiltration basins shall only be used where it can be demonstrated that they will not pose a risk to the water environment.</li> <li>• Infiltration SuDS have the potential to provide a pathway for pollutants and must not be constructed in contaminated ground. They would only be acceptable if a phased site investigation showed the presence of no significant contamination.</li> <li>• Only clean water from roofs can be directly discharged into any soakaway or watercourse. Systems for the discharge of surface water from associated hard-standing, roads, and impermeable vehicle parking areas shall incorporate appropriate pollution prevention measures and a suitable number of SuDS treatment train component appropriate to the environmental sensitivity of the receiving waters.</li> <li>• The maximum acceptable depth for infiltration SuDS is 2.0 m below ground level, with a minimum of 1.2 m clearance between the base of infiltration SuDS and peak seasonal groundwater levels.</li> <li>• Deep bore and other deep soakaway are not appropriate in areas where groundwater constitutes a significant resource (where aquifer yield may support or already supports abstraction).</li> <li>• SuDS should be constructed in line with good practice and guidance documents, which include the SuDS Manual (CIRIA C753, 2015) and the Susdrain website.</li> </ul>

	<p>Further information on requirements is available from our Groundwater Position Statements, G1 and G9-G13  <a href="https://www.gov.uk/government/publications/groundwater-protection-position-statements">https://www.gov.uk/government/publications/groundwater-protection-position-statements</a></p>
<p>Table 16.1</p>	<p>The Scoping Report suggests there is a conflict between the ONR permitting and the planning policy requirements in the National Policy Statement for Energy (EN-1). It is unclear what document ONR 2014b refers to, however, it is possible for permitting and planning requirements to adopt different standards without directly conflicting. Further clarification why this is considered a conflict is required.</p> <p>The Scoping Report refers to the MDC Strategic Flood Risk Assessment – this is cited as reference 16.12 “Braintree District council, Chelmsford District Council, Colchester Borough Council, Maldon District Council. Mid Essex Strategic Flood Risk Assessment, 2017.” The actual date of the published document is 2007 and the assessment contained in the SFRA is out of data and based on policy, practice, and guidance that has been discontinued. Compliance with or referral to this document is unlikely to be relevant. It would be appropriate to recognise these limitations and describe how the required updates to the SFRA will be addressed. Additionally, the Chelmsford City Council Strategic Flood Risk Assessment (2018) may introduce some ambiguity in the status of the Mid Essex Strategic Flood Risk Assessment and should be noted.</p> <p>The Catchment Flood Management Plan policy that advises that flood risk management actions could be reduced is not strictly aligned with the substantive enhancement require to achieve the appropriate standards of protection at Bradwell.</p>
<p>Table 16.2</p>	<p>The Scoping Report refers to Flood risk assessments: climate change allowances March 2020 (Ref 16.21), the latest update to this guidance was in July 2020.</p> <p>This table should also make reference to the Environment Agency’s Ground Water Position Statements, in particular G1 and G9-G13  <a href="https://www.gov.uk/government/publications/groundwater-protection-position-statements">https://www.gov.uk/government/publications/groundwater-protection-position-statements</a>.</p>
<p>Table 16.4</p>	<p>It will be essential to have data that enables modelling to be calibrated. Collecting data on the existing discharge characteristics of the Downhall and Weymarks sluices will be necessary if this is to be achieved to an appropriate standard.</p>

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	Coastal flooding from wave overtopping needs to be considered in the bespoke flood modelling.
16.6.4	There is not mention of the risk from wave overtopping, from the exposed coast to the east of the site. The risk from wave overtopping along the frontage will need to be assessed.
16.9	<p>Potential mitigation measures may also have benefits for biodiversity and such opportunities should be explored further.</p> <p>For example, attenuation ponds could be designed to support habitats for wetland flora and fauna, and surface water drainage could supply water to support wetland habitats as part of biodiversity mitigation or enhancement.</p>
16.6.11	<p>This statement suggests that the mapping for surface water suitably characterises the risk of flooding for the Weymarks Ditch. This is not correct. It is not appropriate to assume it characterises the existing risk or use to assess the effect of site-specific proposals.</p> <p>Fluvial flood risk is unknown at this stage as the surface water mapping available used a direct rainfall approach with an assumed constant loss.</p> <p>A site scale model to establish baseline conditions and assess proposed project scenarios will be required.</p>
16.6.13	The assessment and analyses of the baseline conditions must competently capture the drainage mechanisms described in this section of the report.
16.6.17-16.6.19	<p>The potential effect on groundwater levels induced by the predicted change on mean sea levels should also be considered.</p> <p>The study suggests that more permeable surface deposits might be present and under climate change conditions, this could induce higher flows in the existing ditches than present.</p>
16.6.21	Reservoir flood risk mapping is in the process of being improved and updated. The amended mapping includes for "wet day" and "dry day" failure scenarios and should be used when available.
Table 16.13	The number of new watercourse crossings should be minimised, where these are necessary they should be clear span bridges to minimise the impacts on ecology, habitat

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	continuity and hydromorphology. Culverts should be avoided.
16.6.57	<p>Flood risk information (Flood Zones) may not be available for watercourses where the catchment area is less than 3 km<sup>2</sup>. This does not mean that there is no flood risk but that the flood risk is unknown or unclassified.</p> <p>In addition to the areas of flood risk identified</p> <ul style="list-style-type: none"> <li>• Crossings at South Woodham Ferrers (579650, 197680) and Great Hayes (583200, 198330) are within Flood Zone 2 and 3.</li> <li>• Crossings at Sharps Farm, Latchingdon (587800, 200390) and Mayland (591440, 201440) have not been identified and should be included.</li> </ul>
16.6.60	There is also an area within Flood Zone 2 and 3 near Sandon Bridge (575500, 205400).
16.6.68	The increase in mean sea levels will potentially affect the base inflows to existing ditch systems and the “tidal emptying time”.
Table 16.9	<p>It is not clear that the definition of the magnitude of change as proposed correlates to the vulnerability of the receptor.</p> <p>The flood risk assessment process must provide an assessment that considers this and creates a more detailed understanding of risk, which the Environmental Statement could describe.</p>
16.8.7	The creation of new defences to provide the appropriate standard of protection to the development and the reliance on the continued performance of the outfalls and drainage systems will significantly change the performance of the local maritime and terrestrial hydrological regime.
Appendix 14A 2.4.20	Include trip blanks for quality assurance in addition to the proposed duplicates.
Appendix 14A and 15A	Heavy plant is likely to be moving around site. Consideration should be given to more robust measures of protecting headworks such as concrete rings.
<b>17</b>	<b>Coastal Geomorphology and Hydrodynamics</b>
Chapter 17	There is no reference to any improvements to the existing coastal sea defence infrastructure. Appendix 15A proposes a topographic and flood defence condition survey to inform the proposer of the current standard and condition of

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	existing defences. Should this survey conclude that the existing infrastructure is inadequate for the proposers needs, then any improvement works will need to be incorporated into, and fully assessed, as part of the EIA process and described in the Environmental Statement.
17.6.6	The conservation advice packages for the relevant international sites should also be considered.
<b>18</b>	<b>Marine Water Quality and Sediments</b>
Table 18.2	Conservation advice packages should be referred to.
18.6.47	<p>Excessive opportunistic macroalgae growth as a result of nitrogen loading can result in intertidal mudflats and seagrass beds becoming smothered and anoxic sediments. This could lead to reductions in benthic invertebrates and reduced food availability for fish and birds.</p> <p>Modelling should be provided for potential increases in opportunistic macroalgae in the Blackwater as a result of nutrient discharges during the construction and operational phases of the development.</p>
18.7.6	Habitats Regulations Assessment will be required for associated permits. A Countryside and Rights of Way (CRoW) assessment may also be required.
18.7.10	<p>In addition to the treated sewage effluent, the return of dead and moribund biota in cooling water discharges also has the potential to influence microbiological quality and affect the bathing water and shellfish water quality and compliance.</p> <p>An assessment of the return of dead and moribund biota and an in-combination assessment should be provided.</p>
18.7.10	<p>Only brief reference is made to treated sewage effluent. The issue of sewage disposal is an important aspect that needs careful consideration to ensure there is no adverse environmental impact.</p> <p>A foul drainage strategy should address the construction and operational phases of development for the main site and where applicable associated development sites. Options for disposing of foul water will require detailed consideration and consultation with relevant organisations, including the Environment Agency. The potential impacts associated with options will need to be assessed and</p>

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	therefore it is our view that this needs to be scoped into the EIA.
Table 18.23	<p>Assessing changes in suspended solids that could lead to a change in the turbidity classification can inform an assessment of turbidity and nutrients, but should not be relied upon in isolation.</p> <p>It is not a suitable trigger for assessing if changes to suspended solids could pose a risk to other receptors such as shellfish protected areas, benthic invertebrates or migrating fish. The EIA should explain how likely significant effects to all receptors from changes to suspended sediments will be assessed.</p>
Table 18.24	Effects on sediment quality should also be assessed.
Reference 18.42	There are more recent evidence reports on cooling water options produced by the Environment Agency.
<b>23</b>	<b>Biodiversity: Terrestrial and Freshwater Ecology and Ornithology</b>
23.1.8	Marine Conservation Zone and Countryside and Rights of Way assessment requirements should be similarly described.
Table 23.5	The fish surveys should not be restricted to the main development site and a 100 m radius. The surveys should consider the wider catchment of the Weymarks Ditch and borrow dyke system. Many fish species are migratory within freshwater systems and some migrate between marine and freshwater habitats. It is recommend that the zone of influence for desk study and field study of fish populations should be expanded to take account of these considerations.
23.5.16 Table 23.9	<p>The report omits surveys for amphibian species, other than for great crested newts. Surveys for smooth/palmate newt, common frog, and common toad, the latter being a Species of Principal Importance under the NERC Act 2006.</p> <p>We have previously requested with the company that these species are surveyed through technical level discussions; and continue to consider this important information.</p>
Table 23.12	<p>Intertidal mudflats should be included in the list of Habitats of Principle Importance.</p> <p>Common toad should be included in the list of Species of Principle Importance.</p>

	<p>There may be a requirement to assess impacts on individual invertebrate species if these are legally protected in addition to notable invertebrate assemblages.</p>
Table 23.13	<p>Barriers to migration (e.g. movement of eels and other fish) should be added as a potentially significant effect during the operational phase.</p>
23.8.1	<p>This refers to potential mitigation but includes biodiversity enhancement and biodiversity net gain.</p> <p>It would be helpful to have biodiversity enhancement and biodiversity net gain in a section separate from mitigation to avoid conflating the different purposes of the interventions.</p> <p>This paragraph should also include the need to maintain and improve habitat continuity.</p>
<b>24</b>	<b>Marine Ecology and Fisheries</b>
Table 24.1	<p>The table refers to eel recover plans and eel management plans but does not refer to the Eel Regulations 2009. Include the Eel Regulations and refer to the requirements.</p>
Table 24.2	<p>There is other relevant Environment Agency cooling water guidance that should be referred to:</p> <p>Protecting biota from cooling water intakes at nuclear power stations (2018) Environment Agency  <a href="https://www.gov.uk/government/publications/protecting-biota-from-cooling-water-intakes-at-nuclear-power-stations">https://www.gov.uk/government/publications/protecting-biota-from-cooling-water-intakes-at-nuclear-power-stations</a></p> <p>Nuclear power station cooling waters evidence on 3 aspects (2019) Environment Agency  <a href="https://www.gov.uk/government/publications/nuclear-power-station-cooling-waters-evidence-on-3-aspects/nuclear-power-station-cooling-waters-evidence-on-3-aspects-summary">https://www.gov.uk/government/publications/nuclear-power-station-cooling-waters-evidence-on-3-aspects/nuclear-power-station-cooling-waters-evidence-on-3-aspects-summary</a></p> <p>An updated paper on fish bioacoustics has been produced: An overview of fish bioacoustics and the impacts of anthropogenic sounds of fishes, Popper and Hawkins (2019) that adds new information relevant to this assessment, including the importance of particle motion as well as sound pressure.</p>
24.4.3	<p>The use of ICES scales may not be appropriate to assess potential impacts to certain species, particularly those of</p>



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<p>24.4.6</p>	<p>conservation concern and species that have small sub-populations within an ICES stock assessment area.</p> <p>Further information is required to justify why ICES scales are appropriate for assessments when there may be evidence of more localised fish populations. The appropriateness of the areas used to assess effects on species with smaller sub-populations should be underpinned by biological studies and include an assessment of the immigration of a species from a wider stock and over what time period this immigration occurs.</p>
<p>24.4.5</p>	<p>The list of potential impacts associated with the main development site does not include entrapment losses to fish and other biota. All aspects should be considered, including entrapment losses.</p>
<p>24.5.10</p>	<p>River lamprey may migrate through the estuary but breed in freshwater. It is recommended that this text is reworded to reflect more accurately the lamprey life cycle. If they are present in the system, it is important to understand where they may be migrating from.</p>
<p>24.5.20</p>	<p>River lamprey have been observed at Beeleigh Falls at the Blackwater and further assessment is required to determine if a population is present in the Blackwater and its tributaries.</p>
<p>Table 24.6</p> <p>24.7.3</p>	<p>There is no long-term entrapment data for the site. The proposed scope of the marine fish and epibenthos surveys appear to provide only relatively low confidence characterisation rather than addressing the long-term data gap to inform a robust entrapment loss assessment.</p> <p>We strongly recommend using additional methods, surveying more sites and increasing the duration to 3 years. This will increase confidence in assessing entrapment losses and account for interannual variability.</p> <p>The full set of WFD transitional fish surveys are repeated in Spring 2022 to provide results for two autumn and two spring surveys in order to account for interannual variability for some fish species.</p> <p>More information should be provided on the lunar cycle and tidal state for the glass eel specific surveys.</p> <p>The Crouch waterbody has not been included in the proposed WFD fish programme. This may be required if evidence indicates it may be impacted by the project.</p>

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	<p>There must be experiments and assessments for thermal stress, chemical stress from both discharges and disturbed sediments, and in-combination. Chemical sensitivity experiments should include an assessment of Environmental Quality Standards Directive list chemicals for WFS compliance.</p>
Table 24.8	<p>It is unclear how Marine Conservation Zones are valued in this table.</p>
24.7.3	<p>The applicant had agreed to screen into the WFD assessment Essex Transitional and Coastal waterbodies including Blackwater, Blackwater Outer, Colne, Crouch, Essex, Hamford Water, Harwich Approaches, Orwell, and Stour waterbodies.</p> <p>This should be reflected in the Environmental Impact Assessment Scope.</p>
24.7.4	<p>Habitats Regulations Assessment will be required for associated permits. A Countryside and Rights of Way assessment may also be required.</p>
Table 24.17	<p>It may be helpful to consider protected shellfish areas as a separate receptor, as well as being included as part of the wider benthic ecology receptor.</p>
Table 28.18	<p>Discharges of dead and moribund biota could increase both nutrient and bacterial loading. Assessments should include an impact assessment of both the nutrient loading and the bacterial loading. This could be a particularly important consideration for the shellfish and bathing waters.</p>
24.6.5	<p>The cumulative impact to fish stocks may not be fully captured if the Zone of Influence does not reflect the stock unit being used for the assessment.</p> <p>If an ICES stock area is being used to assess the impact to a certain species the cumulative effects assessment must look at all of the potential impacts to the entire ICES area.</p>
24.8.2	<p>A full appraisal of all mitigation measures that could reduce impacts from the project should be included including low-velocity, side-entry intakes and repulsive technologies such as acoustic fish deterrent. Justification should be provided for any decisions not to use mitigation options.</p>
24.9.2	<p>The proposal to discuss predicted effect sizes in relation to natural variation will be dependent on the applicant being able to describe and quantify natural variation. There is a</p>

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	<p>risk that with the lack of long-term datasets for some receptors, the applicant will not be able to describe natural variation based on the scope of proposed surveys and studies. It is unclear how the applicant will assess predicted effect sizes if there is low confidence in understanding variation.</p>
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**From:** [Nigel Richardson](#)  
**To:** [BradwellB](#)  
**Subject:** Scoping Opinion - EN010111\_000041\_201009  
**Date:** 20 October 2020 13:41:53  
**Attachments:** [0.jpg](#)  
[1.png](#)

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Dear Marnie Woods,

Thank you for your letter dated 9 October 2020. I can confirm that I have no comments to make.

Kind regards

Nigel Richardson  
Planning Service Director  
Epping Forest District Council  
01992 564110



Safer spaces is a council-led programme to help kickstart the local economy and reopen high streets in the Epping Forest district [Click Here to have your say on social distancing and safer spaces](#)



Our employees are working from home and have access to emails and telephones. We are doing everything we can to support our residents and local businesses. To avoid risk of cross-contamination please don't send items and correspondence through the post unless absolutely necessary. For up to date information and service updates go to our website at [www.eppingforestdc.gov.uk](http://www.eppingforestdc.gov.uk). **Stay alert. Control the virus. Save lives.**

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Marnie Woods  
Senior EIA Advisor on behalf of the Secretary of State  
The Planning Inspectorate  
Environmental Services  
Central Operations  
Temple Quay House  
2 The Square  
Bristol, BS1 6PN

Your ref: EN010111\_000041\_201009

Our ref: BB0069

06 November 2020

Dear Ms Woods,

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

**Application by Bradwell Power Generation Company Ltd (the Applicant) for an Order granting Development Consent for the Bradwell B New Nuclear Power Station (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 emailed letter dated 9<sup>th</sup> October 2020 providing details of the applicant's contact details and consultation by the Planning Inspectorate on the scoping opinion submission by the applicant.

The following is a joint response to the consultation on behalf of both Essex County Council and Maldon District Council. The response begins with executive comments on the submission followed by topic specific comments aligned to topic chapters.

## **1. EXECUTIVE COMMENTS**

A project of the scale and longevity of that proposed by the applicant clearly has the potential to have significant and long-lasting effects on the Maldon District, Essex County and beyond. It is therefore extremely important that any decision maker has a comprehensive baseline from which to perform a robust assessment of likely significant effects of the proposal to inform its decision and if appropriate to determine the best ways to mitigate any unavoidable harm. This scoping opinion request consultation is therefore welcomed as an important step in ensuring that any environmental assessment of the proposed development is both comprehensive and robust.

The focus of the environmental assessment must be on specifics of the proposal and the details of the sites proposed for development, including the Associated Development.

## 1.1 The Government's Decision

The Bradwell site proposed for the development of a new nuclear power station was initially assessed on a smaller site and for a single reactor, when it was identified by the Government as a site potentially suitable for the deployment of a new nuclear power station within National Policy Statement for Nuclear Power Generation (EN-6) in July 2011. The Government made it clear that the Strategic Site Assessment at the time could only conclude that sites are “potentially” suitable as it is a strategic level assessment based on the information available to the Government at the time.

We understand that the Secretary of State as the decision maker, will assess the details of each application for new nuclear development in accordance with the National Planning Statements and Planning Act 2008. The specifics of the proposal and local impacts are therefore significant with detailed assessments of baseline conditions and potential effects critical to inform scheme development and any decision making.

## 1.2 Covid-19

The impacts of the Covid-19 pandemic cannot be ignored, and with the second wave now underway, the UK Covid-19 has affected the Councils' ability to respond within the 28-day consultation period. We appreciate that this is a statutory consultation period and could not be extended by PINS. We nevertheless trust that our representations are valuable and that PINS will continue to have the expertise required to respond comprehensively to the applicant's submission within the statutory period.

With the medium or long-term effects of Covid-19 also largely unknown at this time, it is asked that the Environmental Statement also considers the potential impacts of the virus across all environmental topics. Covid-19 'safe' development may be different from similar development provided before the pandemic and could have different effects. Working practices or accommodation requirements may change and could directly impact on the validity of assessments, particularly where the applicant is using benchmarking from previous new nuclear build projects in the UK to base many of its assumptions for Bradwell B.

## 1.3 General Concerns

### 1.3.1 Impacts are underplayed

The Councils acknowledge the amount of work put into the scoping submission, and in some areas find the submission largely acceptable, but there are a significant number of specific concerns that are set out in the topic specific chapters below in Section 3 of this consultation response. There are also broader concerns with wider significance to the submission that are set out in the paragraphs below.

The Councils have a general concern that the scoping submission pays too little recognition to the potential for significant local impacts of the proposed development. It underplays the sensitivity to change of the local environment, perhaps due to the lack of progress with baseline assessments; an over-reliance on desktop assessments rather than up to date data sources or surveys; and/ or a 'top-down' view of the project. It could be viewed that the submission has been made too early in the project, as proposals and methodologies for impact assessment could have been more soundly based on a thorough understanding of baselines and potential detailed impact pathways had it been submitted later. The Councils are of the view that based on the information contained within the Scoping Report and the accelerated timescale which is being applied to this project that the current report is premature. We feel that the proposals, as they develop, with continued emphasis on an

integrated sustainable transport strategy may need to be re-scoped prior to the Development Consent Order submission.

#### 1.3.2 Baseline requires more detail

The submission feels too generic in many areas and we are not comfortable with the proposed fall-back to a generic matrix outlined in Chapter 5 of the submission. Baseline assessments are in outline form and have largely been desk studies which require additional site specific or local survey results. In some areas, there are surveys planned to improve the understanding of the baseline presented that are based upon a more thorough understanding of baseline conditions and detailed impact pathways for potential significant effects but not in all areas where further studies are required. This will require more time for detailed baseline assessments and engagement with the Councils.

In terms of tourism, for example, we are disappointed and extremely concerned that the document is currently too focused on tourist accommodation and does not appear to demonstrate the importance of tourism to the local economy, nor the far-reaching inter-relationships of tourism across all workstreams.

#### 1.3.3 Degree of flexibility proposed

The Councils are concerned that the submission is unclear on the level of information proposed to be included at later stages to explain the proposed development. The proposals reference use of a Design Envelope, utilising the 'Rochdale envelope' approach, but is unclear how far this approach would be adopted. Whilst the need for some flexibility is recognised, the Rochdale envelope approach has its limitations when considering scheme design and environmental impacts. A cautionary approach is requested, with flexibility sought only where necessary, evidenced and fully justified.

#### 1.3.4 The decommissioning phase

Whilst it is entirely appreciated that the decommissioning of any nuclear power station would be subject to a later consent process, it is not adequately explained why the full lifecycle of the proposed development is not included within the proposed assessments. It is the Councils' view that the decommissioning phase of the project should not be scoped out of the Environmental Impact Assessment (EIA). Broadly speaking, the submission proposes very little to be scoped out of the EIA and specific comments on proposals are contained within the specific topic comments. In general, the Councils ask for a precautionary approach to scoping out any issues to support community confidence that all areas of concern are specifically and robustly addressed.

#### 1.3.5 Need for holistic view and crossover

A major concern to the Councils is that the submission fails to consider the environment in a holistic manner, acknowledging the complexity of the environment and interconnected and multifaceted impact pathways. This is especially in relation to the historic landscape of the Dengie peninsular which is of considerable national and local significance, extremely complex and highly sensitive to change. It is a landscape where the marine, inter-tidal and terrestrial elements have been interchangeable over the millennia, and that owes its individual character to the interplay between the historic and natural environment. This interplay and integration of factors that contribute to the baseline and understanding of place needs to be much better reflected in the heritage, ecological and landscape sections of the environmental statement. This concern also relates to other topics, including socio-economic, transport and climate change.

In relation to health, the Scoping Report itself suggests the impact on health of a development of the magnitude as proposed will be hugely significant and be relevant, by association, to a significant number of Chapters in the eventual Environmental Statement (i.e. air quality, socio-economics, recreation, amenities, etc). It is for this reason the Councils feel that, whilst not a statutory requirement for an EIA, a separate Health Impact Assessment should be prepared to integrate connected factors and demonstrate that the applicant is leading the way in integrating such a tool for the iterative design and evaluation of its scheme, its impacts and benefits.

#### 1.3.6 Sustainable development

We are also concerned that the delivery of sustainable development, including achieving good design, is not clearly embedded into the submission. A stronger connection between the environmental limitations or constraints of the site and the emerging proposals should be evident in the approach to the environmental assessments. There should also be a greater focus on the long terms impacts on local communities and the potential legacy of the proposed development, both positive and negative. We would have expected to have seen the Councils' design feedback to the Stage One Consultation explicitly taken into account which does not appear to be the case, as well as design principles coming forward that support sustainable development and are measurable, responsive and accountable.

#### 1.3.7 Transparency of Environmental Statement

The Councils request that the structure of any Environmental Statement is adjusted to enable a holistic detailed assessment of baseline, significant effects, and proposed interventions. At the very least this should be through logical overlaps between topic chapters, accepting that there could be a degree of repetition, but enabling an improved assessment with less chance that a complete appreciation of the environment is not lost 'between the gaps' of separate specialisms. The structure of the Environmental Statement should also seek to demonstrate the delivery of a sustainable form of development having regard to the constraints of the site and potential effects on local communities.

The Councils are keen to ensure that the Environmental Statement is as transparent as possible in terms of how the impacts of the proposal are established. At a structural level, robust baselines are a must and there is a great deal of work remaining to be done to establish adequate baselines. In terms of impact assessment, we ask that the assessment first considers the likely significant effects without intervention measures (i.e., mitigation, compensation) and then an assessment with the proposed measures to mitigate or compensate negative effects, or to maximise the positive effects taken into account. This would then enable decision makers to have a better understanding of the potential project effects than just receiving the predicted effects after proposed interventions are factored in. This also helps to understand the relative importance of interventions and promotes a more robust assessment.

We would also ask that likely significant effects are individually assessed and reported, and clearly visible within the Environmental Statement, rather than summarised in 'gross effect' terms. This approach is not explicit within the scoping report submission.

#### 1.3.8 Consideration of options

We are concerned that the proposed submission has closed out options without full details explaining why. Whilst it is fully understood that the applicant would not wish to consider any alternative technology to the proposed UK HPR1000 (paragraph 4.2.12), it may be that consideration to alternative nuclear technology could help explain if there is anything unusual about the proposals that lead to increased or reduced environmental impacts. The decision to move to hybrid indirect



cooling, rather than direct cooling, has direct implications on the scale of development required on the site and whilst there is a commitment to explain the consideration of options and decision-making process in the Environmental Statement, the Councils ask that full details are provided in advance to enable the evidence to be assessed. We would not wish to see options discounted that may, on balance, provide a better environmental alternative. The need for full consideration of alternatives is a general point across all topics at this early stage of the project.

#### 1.3.9 Transport strategy

The Councils are concerned about the potential for severe adverse impacts arising from transport of freight and people connected to the proposed development, especially in the construction stage. We have been seeking to agree a robust and sustainable transport strategy with the applicant to form the basis for future work and assessments and are close to agreement. This is not the strategy within the submission. Paragraph 3.1 acknowledges that following the agreement of a Transport Strategy the applicant will consider whether re-scoping is required, and this is welcomed by the Councils.

The lack of data and information relating to predicted trip generation for the construction phase does not currently allow for a proper assessment of the likely environment impacts and subsequent identification of necessary mitigations. Throughout the transport section of the document there is minimal reference to the potential use of marine and rail transport for the movement of construction freight and materials. The transport section of the EIA needs to consider all forms of transport and should not solely focus on road. We wish to ensure that the most sustainable modes of transport are adopted across the project, with full consideration to all options.

#### 1.4.0 Maximising the benefits

Whilst the Councils appreciate that an Environmental Impact Assessment is a technical exercise, the submission does appear to be weighted towards the mitigation of negative effects. Effects can also be positive, as well as negative, and the Councils ask that the applicant's ambitions set out within its Stage One Consultation, to consider ways to maximise the benefits for the community and to look for opportunities to enhance the environment, are also reflected more explicitly in the Environmental Statement. The Councils are keen to engage early with the applicant to explore how potential positive effects from the proposals could be maximised.

#### 1.4.1 Cumulative impacts

The submission sets out how it intends to deal with cumulative effects that arise as a result of the Project in combination with other large-scale developments or projects. This is broadly acceptable, however, the applicant has been reluctant to confirm that the required electricity connection from National Grid will be fully considered due to the potential difference in project timelines and information potentially available in the public domain. The applicant was required to apply for a modification to the supply agreement with National Grid to support the two-reactor proposal, when an earlier agreement would supply only one reactor. We ask that consideration of cumulative impacts of the National Grid connection is explicitly included within the Environmental Statement for the proposed new power station.

In-combination effects are also identified as cumulative effects and as a general point the Councils would like to ensure that the assessments embrace across all topics that whilst an individual effect may by itself be potentially insignificant, when combined with other similar effects they become significant. Effects can combine to become more significant with even minor effects can become significant when these minor effects are cumulative.

#### 1.4.2 Comparisons made to other nuclear development sites

The Councils request that any comparisons made between the current proposals and other proposals for new nuclear development are applied cautiously, as direct comparison is not possible given the different geographic locations and ‘particular’ characteristics. In addition, learning from the new nuclear development of Hinkley Point C, Somerset, is that predictions have not always proved to be accurate. Each power station proposal is unique, both in terms of site characteristics and also in terms of the detailed proposals, and whilst lessons can be learned from other sites this development is specific to Bradwell and its location and must be addressed in relation to its specific baseline conditions and specific effects.

#### 1.4.3 Pace of project impacting quality

We are concerned that not only are baseline assessments not at an advanced stage, progression to initial impact assessments is being made without key information being available, such as anticipated workforce profiles or construction material requirements. This is making it difficult to consider options and potential impacts of the development and thus the appropriateness of specific proposals. It is important that robust information is available to enable robust assessments and scheme development to proceed. Evaluation of options for development are better selected after baseline conditions and project requirements are known rather than before.

#### 1.4.4 Engagement with the developer and Stage One consultation response

The Councils welcome early and regular pre-application engagement with the applicant, to support the Development Consent Order process, but it is evident from the scoping submission that there is a degree of frustration that the applicant is progressing at pace without necessarily taking on board our previous comments. In some areas it is not evident that the applicant has been responsive to the Councils’ joint response to its Stage One consultation or specific officer engagement at the Working Groups. The joint Councils’ response to the Stage One consultation is available via the following link: [https://www.maldon.gov.uk/homepage/7042/proposed\\_bradwell\\_nuclear\\_power\\_station](https://www.maldon.gov.uk/homepage/7042/proposed_bradwell_nuclear_power_station)

It is of great concern that the Councils’ landscape and heritage advice has been ignored and there is no evidence that the Councils’ comments provided at both the Stage One Consultation and the Cultural Landscape scoping workshop in June 2020 have been adequately addressed. Of major concern is the apparent lack of a holistic assessment of this sensitive historic landscape against which to assess likely significant impacts, design options or potential interventions.

#### 1.5 Closing statement

As a closing comment of this summary, the Councils would like to state that we are actively ready and willing to engage in the project with the aim of delivering the best for our communities.

## 2. TOPIC SPECIFIC COMMENTS

### 2.1. TRANSPORT

Our response to the “*Bradwell B Stage One – Consultation Document*” stressed the need for a clear transport strategy and that this strategy should:

- contain a clearly defined vision, outcomes and objectives, and evidence that the strategy is driving decision making, and

- cover all aspects of transport related to the movement of people and goods during the full period of construction including early works and operation of the proposed development.

The Councils continue to work with BRB to develop an agreed approach to the transportation of people and goods associated with the construction and operation of Bradwell B. It is our view that this transport strategy should not only deliver the power station but also:

- maximise the sustainability of all forms of transport related to the construction of the power station in its entirety, rather than simply maximise the use of sustainable modes of transport;
- minimise carbon production related to all aspects of construction including transportation;
- minimise the adverse transport impacts upon the landscape, natural, historic and built environment of the local area;
- minimise the transport impacts 'upon' and maximise benefits 'for' the local community, local businesses and visitors to the area;
- minimise impacts on the resilience, journey times and levels of service of all transport networks and ensure that our transport networks remain safe to use; and
- ensure there is a long-term legacy of new and improved sustainable transport infrastructure for the local community.

The Councils acknowledge that delivering the power station will require an appropriate balance between these outcomes. It is therefore recommended that the EIA transport chapter contains an overall multi-modal assessment of the entire transport proposal related to the construction of the power station, rather than focussing on roads and covering rail and marine based transport separately within chapters devoted to their various specific environmental impacts. While it is essential that specific factors related to transport, such as noise, air quality, etc., are considered within the relevant sections of the EIA, it would be helpful if there was evidence of an overarching approach to the development of the transport strategy and a summary of relevant impacts within the transport section, both individually and cumulatively. These impacts will need to be considered in relation to the immediate, district and strategic transport networks in terms of development traffic (sea, rail and road) itself, and its impact on other journeys and uses of the transport networks. This approach would enable the transport strategy and specific proposals to be assessed in their totality and demonstrate that the proposed transport strategy represents the optimum solution in terms of overall environmental impact. The current EIA scoping report makes minimal reference to the potential transport impacts of the operational phase of the development.

It is the Councils' view that in the absence of a defined transport strategy, the range of potential transport mitigations presently identified is indicative. They will only be identified once the quantities of people and materials to be transported and the modal split between marine, rail, public and private road transport and other modes are known. It is only at this point that the specific impacts of each potential intervention individually and cumulatively can be assessed. The EIA Scoping does acknowledge that these aspects may need to be re-scoped in paragraph 3.1., depending on the scope of changes. Transport options should be developed in line with the delivery of the transport strategy outcomes for both the early (given the existing highway network is to be used) and main phases of construction. Further detailed discussion, analysis and additional options and search areas will therefore be required before specific transport proposals such as freight and workforce management plans, vehicle routing, mitigations (new routes; junctions improvements and

bypasses) and specific sites for transport interventions (park and ride and freight management areas) can be agreed.

The lack of data and information relating to predicted trip generation for the construction phase does not currently allow for a proper assessment of the likely environment impacts and subsequent identification of necessary mitigations.

Throughout the transport section of the document there is minimal reference to the potential use of marine and rail transport for the movement of construction freight and materials. The transport section of the EIA needs to consider all forms of transport and should not solely focus on road.

Cross-reference needs to be made to the likely effects on air quality and human health as well as possible multi-functional recreation benefits of cycling/walking routes of the various options. This should include updated consideration and analysis of effects/potential benefits and mitigations as options evolve and become more defined.

The timing of this submission of this EIA scoping document might be considered somewhat premature due to the large number of variables and outstanding matters associated with the transport proposals for the construction phase.

Specific responses to this chapter of the scoping submission, and relevant transport comments from Chapter 3 describing the project, are provided in the table below:

Page	Ref.	Comment
3-5	3.3.11	Road network: the A414 through the built-up area of Danbury experiences delays though vehicles taking access into driveways and residential roads. The route is of a hilly and windy nature with slow moving vehicles e.g. refuse vehicles and parked vehicles, and this would be exacerbated by any park and ride or HGV daily movements.
3-5	3.3.12	Road network: it should be noted that the single carriageway B roads mentioned in this paragraph have alignment and geometry which are unfavourable for two-way HGV movements. It should also be noted that whilst these roads may have a theoretical capacity for HGV movements, the rural and residential nature of the area must be taken in consideration when deciding what is the acceptable maximum flow of heavy goods traffic on the local road network.
3-8	3.4.15	National Grid substation: this will be a very significant project and might in itself be an NSIP. Early engagement with National Grid will be essential and the cumulative impacts of this project will need to be considered in the Transport Strategy.
3-12	3.25-30	Earthworks strategy: there is reference to the indicative optimal level of the power station platform being 7.5 metres above sea level with 10 metres high flood defences. There is no mention of what the existing ground level height is. There are no details as to the volume of material required to create a platform and sea defences of these heights.
3-13	3.4.31	Aggregate sourcing: there is reference to material being sourced locally or transported from elsewhere, however, no specific details are provided. Understanding what volumes of aggregate will need to be transported to the site and from where will be essential for the development of the transport strategy and trip generation figures.

Page	Ref.	Comment
3-13	3.4.33-38	Marine transport: it is noted that the marine transport proposals are still under development however there is no reference to where the marine transport which be originating from and what potential environmental impacts there may be at these locations.
3-14	3.4.37	Marine transport and coastal path: the document assumes that the coastal path will be diverted throughout the construction period, which could be over 10 years. The Councils wish to see access to the coastal path maintained for as long as possible and closure or diversion should only occur as a last resort.
3-20	3.6.7	<i>'The Transport Strategy will be refined through project development, an understanding of environmental effects and responses received through the consultation process'</i> . The Transport Strategy will need to be refined and developed in partnership with the Councils.
3-20	3.6.8-9	Transport Strategy objectives: the objectives are still to be agreed by the Councils and may be subject to change. The emerging strategy currently makes no reference to the operational phase of the development. The objectives will need to include reflect the need to minimise impacts on the health and well-being of the local community, particularly with regards to air and noise pollution, and road danger.
3-21	3.6.12	Marine freight transport: there is reference to <i>'a significant proportion of bulk construction materials could be delivered by marine transport'</i> however there isn't any detail as to what this proportion might be. The developer (BRB) has previously made public commitments to at least 50% of materials being transported by sea.
3-22	3.6.16-18	Construction freight HGV movements: until the Councils have received further information on both the <i>'work conducted to date'</i> and progress of the Transport Strategy, both Councils are not in a position to comment on the need and scale of potential highway improvements and other potential mitigations.
3-23	3.6.19	It is noted by the Councils that a Construction Traffic Management Plan will be implemented to manage construction traffic, and this will be subject to discussion and agreement with key transport stakeholders. A more comprehensive multi-modal Freight Management Strategy may also be necessary to ensure there is a coordinated management of all construction related freight movements.
3-23	3.6.22	Development site parking provision: on-site parking provision for 1500 vehicles for construction workers is a very significant number for such an isolated location. Both Councils would like to understand what proportion of this will be for daily commuters and for those in temporary accommodation? And why has this figure been chosen? EV charging infrastructure will need to be provided for the car parking spaces. Ultra-low emission vehicles and car sharing amongst construction workers should be prioritised. There is no reference to how construction workers will be prevented from parking on street in surrounding roads.
3-23	3.6.23-24	Park and Ride (P&R) facilities: The Councils will expect all dedicated buses and P&R buses to be ultra-low emission vehicles (ULEVs) to support air quality, climate change and transport strategy objectives. Demand Responsive Bus (DRB) services may be more suitable for specific areas of the peninsula. Any potential bus services, DRB and P&R facilities should

Page	Ref.	Comment
		be accessible to the local community and general public to encourage wider use of sustainable modes of transport in the area.
3-24	3.6.26 and Fig 3.3	Early routes A and B: text noted but the Councils' comments made during the stage one consultation apply. An agreed Transport Strategy is required prior to detailed discussion and agreement on vehicle routing/mitigation, as proposals should be judged against agreed strategic transport objectives.
3-25	3.6.33 and Fig 3.4	Highway improvement during peak construction: text noted but the Councils' comments made during the Stage One consultation apply. An agreed Transport Strategy is required prior to detailed discussion and agreement on vehicle routing/mitigation. Additional search areas may therefore be required. Where any highway interventions are agreed the Councils will expect improvements to walking and cycling facilities to be considered alongside.
3-28	3.6.45 and Fig 3.5	Park and Ride facilities search area: text noted but the Councils' comments made during the stage one consultation apply. An agreed Transport Strategy is required prior to detailed discussion and agreement on park and ride facilities, as proposals should be judged against agreed strategic transport objectives. Electric vehicle charging infrastructure will be required as part of any P&R facility.
3-29	3.6.47	Freight management facilities: text noted but a modern freight management facility or a construction consolidation centre would also be expected to include a large covered building or shed to ensure materials are transferred or stored in a dry and secure environment. Ultra-low emission vehicle charging infrastructure could also be expected.
3-29	3.6.48 and Fig 3.6	Freight management facilities search areas: text noted but the Councils' comments made during the stage one consultation apply. An agreed Transport Strategy is required prior to detailed discussion and agreement on freight management facilities, as proposals should be judged against agreed strategic transport objectives.
3-30	3.6.49	Operation phase: the emerging Transport Strategy will also need to thoroughly consider the impacts and issues associated with the operational phase of the development.
4.9	4.4.10	Deliveries of needed marine transport options, including Abnormal Indivisible Loads is shown as being preferred by means of a Beach Landing Facility (BLF). The initial Stage One Consultation also proposed this in combination with a bulk material jetty, a marine offloading facility, and a materials pipeline. The Councils are concerned that this choice, prior to the agreement of a sustainable transport strategy is premature as it has not been demonstrated that a BLF is the best and most beneficial option going forward.
6-1 to 6-59	Whole chapter	It is recommended that the EIA transport chapter contain an overall assessment of the entire transport proposal related to the construction of the power station, considering all forms of transport, rather than focussing predominately on roads and covering rail and marine based transport separately within chapters devoted to various specific environmental factors. While it is essential that specific factors related to transport, such as noise, air quality, etc., are considered within their relevant section it would be helpful if there was an overarching summary of relevant impacts within the transport section to demonstrate that the

Page	Ref.	Comment
		transport proposals are examined in their totality and the overall environmental impact of the proposed transport strategy can be assessed.
6-1	6.1.2 and 6.1.3	Transportation must equally consider all options, including marine and rail, in addition to road-based transport. The scope of the assessment is currently drawn too narrowly.
6-2	6.1.8	It is noted by the Councils that the Transport Chapter of the ES will be accompanied by a Transport Assessment (TA) the scope of which will be agreed with the relevant authorities through the preparation of a TA Scoping Document.
6-2	6.1.5	The submission advises that <i>'The potential opportunities for rail as part of the Transport Strategy for the construction of the Project'</i> . The Councils welcome this addition as we have asked that all modes are considered when determining the most sustainable method for transporting materials and passengers, and ask that further consideration is also given to rail as a part of the solution to the movement of workers and potential for legacy improvements to the rail network.
6-2	6.1.9	Work undertaken to date: discussions with Network Rail have taken place and more are planned. There is currently no reflection of this in the text.
6-4	Table 6.1	Reference should be made to Essex Highways 'Development Management Policies' dated February 2011, formally adopted as Essex County Council Supplementary Guidance.
6-12	Table 6.2	Manual for Streets (MfS): For the avoidance of doubt ECC's position, as Highway Authority, regarding use of MfS is as follows: <i>When considering layout and design, MfS will be taken as a starting point. However, the design principles contained in The Design Manual for Roads &amp; Bridges (or appropriate local design standards) should apply where the primary function of a highway is deemed to be 'movement'. Where the actual 85th percentile speed is above 60kph the Design Manual for Roads and Bridges (or appropriate local design standards) parameters for Stopping Sight Distances are required. Where speeds are lower, MfS parameters are generally acceptable subject to local context. Where the combined proportion of HGV and bus traffic is greater than 5% of traffic flow, Stopping Sight Distances need to be adjusted (subject to consideration of local context) to take account of differences in stopping times.</i>
6-16	Table 6.3	Details of the meeting with Network Rail is missing from this table.
6.17	Table 6.4	Transport Strategy. The document states that the strategy <i>'will seek to maximise sustainable modes of transport'</i> . It is The Councils' view that the transport strategy should seek to maximise the sustainability of all forms of transport related to the construction of the power station in its entirety, rather than simply maximise the use of sustainable modes of transport.
6.23	Table 6.5	Desk-based data sources: it is suggested that the following additional data sources be considered – road asset condition surveys, cycle route audits, Census travel to work data, other local/regional/national travel survey data.
6.27	6.5.11	No mention is made of the 'Maldon District Cycling Action Plan'. Cycling is becoming an important form of transport and the Maldon District Cycling Action Plan aims to support this both for utility and leisure journeys.

Page	Ref.	Comment
		Existing cyclists on the rural roads should be safeguarded from additional risks associated with increased traffic flows.
6.28	6.5.18-24	The EIA scoping report does not currently reference the finding bid to the <i>Restore Your Railway Fund</i> to reopen the Witham to Maldon railway line. This project offers an opportunity to support the transportation of both freight and construction workers to the site in a sustainable manner.
6-29	6.5.21	There is currently no reference to the new station at Beaulieu Park Chelmsford that is programmed to come forward during the Bradwell B construction timeframe. This should be factored into any baseline assessment.
6.29	6.5.22	Reference should be made to the 2019 Great Eastern Main Line Study that examines rail capacity along this route.
6.30	6.5.33	The text states that “A12 – The A12 is part of the strategic road network and links London to Lowestoft .....”. While the A12 extends north of Ipswich to Lowestoft, the A12 ceases to be part of the strategic road network beyond its junction with the A14. There is a need to reword this to provide clarity within the baseline assessment. There is no mention in the text of the A12 Widening Programme: Highways England (HE) has announced its preferred route for widening improvements between junction 19 and 23 (October 2019) and between junction 23 and 25 in August 2020 and to be operational by 2027/2028. This should be considered in the EIA.
6-31 to 6-35		The summary of roads within the western section and near the main site does not adequately reflect its rural context and that it is largely unsuitable for large numbers of HGV movements, as confirmed in the Councils’ response to the applicant’s Stage One consultation.
6.31	6.5.33	A130: The A130 is part of the local road network, however, the A130 from Howe Green Interchange (A12 near Chelmsford) to Rayleigh Spur Roundabout (A1245) is currently maintained by CountyRoute for Essex County Council as part of the PFI agreement that funded its construction. This should be included in the baseline assessment.
6-36	6.5.35	Rectory Lane is mentioned but not coloured blue in Figure 6.8 Study Area Eastern Section and 3 The Project Figure 6.1 Study Area, Figure 6.5 Study Area sections and Figure 6.12 Paramics model extent.
6-38	Table 6.9	Further surveys and studies: We suggest there may also be need for C2 utility asset surveys. The Walking and Cycling Study should include an audit of the area of influence to identify deficiencies in the existing network as well as opportunities for future expansion and improvements. The methodology for undertaking this exercise should be agreed with the Councils in advance and should consider the use of e-bikes in any assessment.
6.39	6.6.2	Traffic assessment should not only include rail options but should also include an assessment of different proportions of materials moved by marine and/or rail to test the sensitivity of the road network to variations in the proportions of materials carried by rail and marine modes.
6.39	6.6.2	As well as new off-site rail infrastructure, mention should be made to new marine infrastructure needed if seaborne transportation is to be maximised.



Page	Ref.	Comment
6.40	6.6.5	The Councils would like to stress the importance of calculating workforce and source of construction materials as soon as possible as there are essential to assess the transport strategy and specific transport proposals.
6-40	6.6.9	Workforce shift profiles: where appropriate the use of recent survey data from the live workforce at Hinckley Point C should be used to inform these profiles.
6.47	6.6.56	Marine summary: the information here is very brief and could be interpreted as suggesting there is limited potential for marine freight to reduce HGV trips on the local road network. The level of detail provided in this section does not reflect the previous public commitments made by the developer (BRB) that 50% of materials and freight transported to the site will come by sea.
6.48	6.6.56	Marine summary: there is no mention of effects around the landing area on the shoreline adjacent to the construction site, if this option is adopted then there is the potential for much activity on the shoreline together with the risk of environmental damage. Transportation needs to be considered in its entirety with the overall impacts of the chosen transport approach rather than transport modes considered separately.
6.48	6.6.57	Assessment years: It is proposed that road transport alone will be assessed. The various road scenarios are interdependent with the proportion of freight and workforce to be moved by rail and sea; further information is required with regards to the split between modes.
6-48	6.6.60	Defining the sensitivity of receptors, in determining the sensitivity of a section of road the following factors should also be considered: the presence of residential properties fronting the road, and whether those properties go up to the edge of the footway/road; the presence of a dedicated cycle route or facility; the presence of existing on street parking. The rural character of the area means that the acceptable number of HGVs on these routes is likely to be lower than the theoretical capacity.
6-49	6.6.64	Severance: the presence of signed cycle routes and public rights of way (PROW) should be factored into any measurement of impacts of severance.
6.50	6.6.69	Determining the magnitude of change: The Councils wish to see the following considered when determining the magnitude of change: <ul style="list-style-type: none"> <li>• potential capacity of any road, having regard to amenity and resilience;</li> <li>• bus passenger delay;</li> <li>• cyclist delay;</li> <li>• journey time reliability; and</li> <li>• noise and air pollution from transport sources be factored into determining the magnitude of change.</li> </ul>
6-51	6.6.72	Road accidents and safety: 'collision' is the preferred term rather than 'accident'. We would welcome prior discussion regarding the identification of specific collision clusters and hotspots within the area of influence.
6.52	Table 6.11	Definitions of magnitude of change: we would welcome further discussion on additional criteria and the thresholds detailed in this table.

Page	Ref.	Comment
6-54	Table 6.13	Likely significant effects: the table is very brief, we would expect it to be expanded considerably for the final EIA. For example, with regards to the 'activity' column there is currently no reference to the potential impacts of construction workers parking on street on the local road network. With regards to the 'receptor' column there is no mention of the local community and existing residents. With regards to 'effect' there is no mention of impacts on noise and air pollution with resulting impacts on resident's health and wellbeing, as well deterioration of the highway road surfaces.
6-55	6.7.5	The Councils consider that all transport modes should be scoped into the assessment of transport, therefore marine transport should not be scoped out. A holistic approach should be adopted with the most sustainable mode of transport promoted.
6.55	6.8.1	It is the Councils' view that the range of potential mitigations still needs further development, is dependent upon the quantities of people and materials to be transported, the mode split between marine, rail and road and should be developed in line with the delivery of the transport strategy outcomes.
General		Given the scale of the Off-Site Associated Development associated with Transport it is disappointing to note that at no point in this chapter is heritage mentioned. These proposals need full historic environment baseline surveys in advance of any decision as to location in order to inform the location and scale of the proposed works. This applies to road transport, marine transport and rail transport.

## 2.2. NOISE AND VIBRATION

The Councils have some concern in this Chapter about the proposed methodology for assessing effects and determining its significance. The derivation of screening values and sensitivity ratings require clarification and their selection justified. There is also concern over the proposals to scope out certain effects from the assessment.

Specific responses to this chapter of the scoping submission are provided in the table below:

Page	Ref.	Comment
7-1	7.1.3	It is noted that this chapter focuses on likely significant effects on human receptors and that the scope of the assessment required to address likely significant effects upon ecological receptors is provided in Chapter 23. Whilst potential significant impacts on ecological receptors are mentioned in Table 23.13 of Chapter 23 there is little detail provided on the methodology proposed to identify and assess these specific effects. Noise and vibration from the development is also likely to impact on heritage assets including the significance of St Peter's chapel and Bradwell Saxon Shore Fort. This potentially will impact on its structure, as well as its setting and significance, including the contribution of tranquillity. Baseline data should be gathered to establish the current noise-levels in potentially impacted locations so that the impacts of the scheme (both

Page	Ref.	Comment
		constructional and operational) on the historic environment can be modelled and mitigation measures put in place. Noise and vibration may also affect the significance of Bradwell Conservation Area and other designated heritage assets.
7-14	Table 7.3	The summary of both Councils' officer comments is inaccurate, as these were not comments given by Environmental Health Officers. June 2020 was the first direct engagement with the Councils by the applicant on this topic.
7-16	Table 7.4	The submission fails to report or respond to the Councils' response to the Stage One Consultation.
7-23	7.1.58	The Councils note that 'Baseline noise surveys will be carried out as part of the EIA. The methodology and locations will be developed in consultation with relevant stakeholders (notably the local authorities).' The Council's welcome this proposed engagement in the details of the methodology and locations of noise surveys.
7-26	7.5.32	"Predicted baseline may be used for transportation sources (road and rail)" Predicted baselines rather than measured results need to be fully justified with detailed methodologies and should only be used in exceptional circumstances where measurement is not feasible. The Councils would expect baselines to use measured results unless there are exceptional reasons.
7-32	7.6.12	Reference is made to construction traffic on highways, but clarity is required as to whether consideration will be given to construction traffic on haul roads which do not form part of the highway and whether it will be factored into the construction noise assessment or traffic noise assessment.
7-35 7-36	7.6.22 7.6.31 7.6.32	References to Table 7.17 are incorrect in these paragraphs.
7-40	Table 7.19	Derivation and justification of these screening values has not been provided and will be required.
7-40	7.7.1	Bullet 1 only refers to main development site and routes. The Councils ask that the list of potential receptors should also include existing receptors within the study areas for associated development.
7-43	7.7.7	"For residential receptors (existing and proposed), a sensitivity rating of Medium will be applied for the assessment." Derivation and justification for this and other sensitivity ratings has not been provided and will be required to provide confidence in the proposed methodology. Scottish guidance suggest that residential receptors should be considered 'Highly sensitive' along with theatres, schools, hospitals and places of worship. Offices, shops bars etc are all included in medium sensitivity with buildings not occupied during working hours and noisy work environments classified as low risk. Other examples of EIA assessments classified residential receptors as high sensitivity and other non-residential premises such as places of worship, educational

Page	Ref.	Comment
		establishments and medical facilities as highly sensitive. PINS is requested to insist on the higher sensitivity ratings.
7-47	Table 7.23	Rather than scoping out vibration from the substation and committing to assess if the final design places it within 100m of a residential receptor, the default position should be to assess the vibration unless the design indicates otherwise.
7-30	7.6.6 Table 7.12 Table 7.18	<p>Table 7.12 and paragraph 7.6.6 indicate that Category A thresholds of significance for construction noise from the BS5228 ABC method will be adopted i.e. 45 at night, 55 evening and weekends and 65 daytime. However, table 7.18 which identifies LOAEL and SOAEL criteria has a SOAEL i.e. significant adverse effect of 55dB for night time, 65 at evening and weekend and 75 during the day. This is in line with Category C values from the ABC method in BS5228. The site noise monitoring results from 2000 show a range of daytime LAeq approximately 50-55dB which would at this stage suggest Category A significance threshold would be appropriate, pending full assessment.</p> <p>A blanket 55dBA SOAEL for all sources of noise at night based on the WHO interim target fails to acknowledge that this interim target should only be applied in countries where the night noise guidelines cannot be achieved in the short term. In the specific case of Bradwell B the night noise guideline of 40dB Lnight, outside from END (2002/49/EC) is likely to be met in the rural surrounds of the development site. A night time SOAEL of 55dB is therefore inappropriate.</p> <p>Potential noise pollution arising from night-time transport arising from the proposals, whether by marine, rail, or road, is a concern to the Councils.</p>
7-30	Table 7.18	The LOAELs & SOAELs presented are external levels. Predicted internal noise levels can usually be reasonably derived inside dwellings based on the assumption of a 15dB reduction of the external level through a partially opened window. The Eastland Meadows Caravan Park is a group of sensitive receptors which adjoin the main development site, but as caravans they will not provide the same degree of insulation against external noise as a traditionally constructed dwelling of bricks and mortar might. Consideration of their individual sensitivity should be taken into account.
7-45, 7-46	Table 7.22	<p>The Councils are concerned that the proposal to scope out effects due to vibration from operation of rotating machinery at the main development site and to scope out residential receptors at West Mersea.</p> <p>The submission itself advises that 'Plant can give rise to vibration, with rotating equipment (turbines, fans, pumps etc.) being the main source with potential to result in vibration which might be perceived at distance from the source.' Without a developed design it is not possible at this stage to scope out potential effects on receptors.</p> <p>The study area should include West Mersea, as a nearby settlement, to provide reassurance to local communities that potential significant effects have been scoped in and fully assessed.</p>

Page	Ref.	Comment
		<p>The proposed scoping out of vibration from operational traffic is acknowledged, as potential construction traffic vibration effects are scoped in.</p> <p>The scoping out of vibration from operation of the substation at the main development site should only be scoped out in the event that it is sited more than 100m away from the nearest noise sensitive property.</p>

### 2.3. AIR QUALITY

The Councils are satisfied with the overall approach and methodologies proposed for determining baseline and undertaking assessments for human receptors as these are in line with relevant guidance. We would defer to the advice of Natural England in respect to ecological receptors and air quality.

Specific responses to this chapter of the scoping submission are provided in the table below:

Page	Ref.	Comment
8-2 8-17	8.1.7 (and 8.4.1)	The need to adjust baseline study area to accommodate detailed proposals is important and confirmed within the submission: 'As the Project progresses, further iterations of the SMP will be required as proposals are refined, in particular, with respect to off-site associated development.'
8-48	Table 8.15	The table of receptors should identify within the reason for inclusion the potential for indirect or cumulative impacts on receptors. Specific areas may also need to be highlighted for consideration such as the AQMAs identified in 8.5.20, such as the Maldon AQMA and Danbury AQMA, where air quality is already a concern.
8-50	8.7.8	With respect to human receptors, the Councils are concerned that at this early stage it is proposed to scope out air quality impacts on the local communities of Tollesbury and West Mersea. Appendix 8D does say 'At this stage in the Project design, it is not possible to estimate the likely emissions that will arise from the main development site during the construction, commissioning and operational phases with a high degree of confidence.' There also remains a great deal of uncertainty with regard to associated development and transportation proposals. The Councils therefore ask that this is not scoped out at this stage.

### 2.4. RADIOLOGICAL

The Councils do not have expertise in potential radiological effects and applicable assessment methodologies and will defer to the specialist advice of the Environment Agency at this stage.

The Councils will take a keen interest in the potential impacts of radioactive materials proposed to be used in the development and any potential adverse effects. Whilst the transportation of materials has been included in the assessment, in addition to any radioactive emissions that could occur during the commissioning and operation of the power station, we are concerned that the storage of radioactive waste is proposed to be scoped out. We appreciate that the management of radioactive waste would be subject to assessment and regulatory approval by the Environment Agency and the ONR but consider that an assessment of potential radiological emissions from

nuclear waste proposed to be retained on the site should be included in the Environmental Statement.

We also note the focus of work to date on the Generic Design Assessment process and would expect the assessments required in relation to the EIA to be bespoke to the Bradwell environment and more precision in identifying potential local receptors.

## 2.5. SOCIO-ECONOMICS

The Councils welcome the socio-economic opportunities that this proposed development could bring to our area, our residents and our businesses. However, it is our view that the applicant has not sufficiently assessed and captured the socio-economic baseline for this development and therefore does not provide a suitable basis to test how it would avoid, minimise and mitigate against any negative aspects of the project.

For the development to work for our residents, businesses and partners across Greater Essex, it is essential that any negative effects are avoided or minimised as much as possible, from the outset. The overall assessment should therefore identify 'significant and cumulatively significant' socio-economic effects, in order to recognise that the study will look at smaller effects that act in-combination.

It is considered that the use of benchmarking should be broader than just examining background change and its assumptions (10.6.14). For socio-economic factors, notwithstanding the Covid-19 pandemic restrictions, it is considered appropriate to specifically consider what has happened in reality at Hinkley Point C, given this is a live construction new nuclear build project, compared to what was projected to happen across a range of receptors during that scheme's DCO process (for example, has the onsite accommodation campus been fully utilised and has the impact on the private rented sector been managed as forecast?). We would be more comfortable that this will help validate the accuracy and sensitivity of the Bradwell B socio-economic assessment. We recognise however that comparisons cannot be drawn, or relied upon, across the board as the Bradwell site is materially different in some socio-economic terms from Hinkley Point C due to its different geographical location.

In terms of tourism, we are disappointed and extremely concerned that the document is currently too focused on tourist accommodation and does not appear to demonstrate the importance of tourism to the local economy, nor the far-reaching influence of tourism across all workstreams. We strongly dispute the accuracy of the Visit Britain data being used to reach the conclusions of the scoping report and are disappointed that our previous challenges to this during Working Groups have yet to be properly addressed. We find that thresholds suggested may not be easily quantified and there to be a lack of detail on exactly how impacts will be monitored. For example, how do we know if potential visitors will fail in finding suitable accommodation for their needs? Or indeed, if visitors could get delayed on their journey, so go elsewhere due to increased construction related traffic?

On skills, jobs and supply chain, it is our expectation that further supporting documents will be required, other than those listed in 10.8.5, in order to mitigate against socio-economic disruption. We suggest that further assessment is needed to check that any unpredicted elements have not materialised as the current assessment has a lot of assumptions. With any scale development, a suitable contingency would need to be built into any plans to mitigate any unforeseen impacts – this has not been acknowledged, which is a concern to us. A reflection assessment would offer a level of comfort to us to ensure there was a continued 'appropriateness'.

Whilst the proposed Socio-Economic Fund (10.8.3) is a welcome source of mitigation, more information needs to be provided to understand what this fund is being proposed to be used for and how it could mitigate adverse effects or maximise benefits from the project. We recognise the list provided is for indicative purposes only, but it should explicitly include a Business Support Fund and a Skills and Supply Chain Support Fund as a minimum.

On housing and accommodation, the impact assessment needs to take into account the considerable housing legacy benefits that could flow from the project. Mention is made in the Scoping Report of potentially incorporating permanent housing somewhere on the Dengie Peninsula, in addition to the temporary accommodation campus, but this currently lacks detail and discussion with the host local authorities. Maldon District Council has already commenced work on a Bradwell B Development Plan Document (DPD) to address the additional housing and economic growth needs that could arise from the Bradwell B scheme that are not otherwise accounted for in the Local Development Plan that was adopted in 2017. We feel that further engagement is needed by the developer before so this concept can be fully explored to ensure any opportunities of delivering permanent housing are fully evaluated within the context of the scheme, the emerging DPD and the ability to create a sustainable place-shaping legacy for the area.

Finally, the Environmental Statement should also acknowledge the reality that datasets are not always accurate, and this is worsened at the District and ward level where data is often extrapolated or rounded. We have suggested that baseline datasets are provided with a measure of ‘confidence’ to account for this. Additional studies could help address areas where data is out of date or where there is a low level of confidence. Ongoing monitoring will be key.

Specific responses to this chapter of the scoping submission are provided in the table below:

Page	Ref.	Comment
		<b>Economy</b>
10-4	Table 10.1	<p>We welcome the ‘Jobs and People’ section of the stage one consultation (table 10.1). However, we would have expected to see, at this stage or sooner, a separate independent strategy that outlines specific ambitions, actions and mitigation steps; be it temporary or permanent.</p> <p>Table 10.1 (scope of study) for the construction and operational workforce profile gives very generic headlines but does not provide information on numbers of specific skilled workers required, whether the ‘region’ can provide for these workers, or the potential numbers of additional people who may need to relocate to the District Housing Market Areas, as a consequence. We are mindful of the fact that other regional and national projects are recruiting simultaneously and there is no mention of how Bradwell B will mitigate against the disruption to other projects and vice versa. This table also suggests work has been completed, however only we believe only an ‘Initial’ study has been undertaken. In 10.1.13, the text suggests work has been completed, this is not the case and the document should replace ‘undertaken’ with ‘started’.</p>

Page	Ref.	Comment
		<p>Workforce planning should also identify how the developers intend to work with relevant local Essex partners to maximise local recruitment across all skills levels, especially high-level jobs, during the construction and post-construction phase. Project design measures should include a commitment to work with MDC and ECC to mitigate adverse effects on the local housing market (including affordable housing) and maximise beneficial effects from the project.</p> <p>10.1.13 Refers to ‘high level work on a Jobs, Skills and Supply Chain Strategy’ but makes no mention of when this strategy will be published during the timeline of the development. It is imperative that high level work has defined timetable leading to the production of this strategy.</p>
10-5	10.2.1	It is considered that all adjoining authorities to the development should be referenced in respects of reviewing policies in adjoining authorities, which means Chelmsford City Council, Braintree District Council, Colchester Borough Council and Rochford District Council should also be mentioned.
10-6	Table 10.2	<p>The Maldon District Council (MDC) Economic Prosperity Strategy 2013-2029 has been superseded by MDC Prosperity Thematic Strategy (see link below).</p> <p>Other relevant policies and strategies for community, tourism and recreation are the MDC Community Thematic Strategy &amp; MDC Place Thematic Strategy:  <a href="https://www.maldon.gov.uk/downloads/download/8192/corporate_plan">https://www.maldon.gov.uk/downloads/download/8192/corporate_plan</a></p>
10-6	Table 10.2	The Councils would like confirmation from the developer that SELEP as the Local Enterprise Partnership have been engaged and confirm the policy identified is correct and inclusive.
10-11	10.2.4	The definition of ‘significance’ in 10.2.4 needs to be agreed at this time to enable meaningful discussion moving forward.
10-15 to 10-17	Table 10.4	<p>The Councils are concerned that the design and implementation of the supply chain strategies mentioned in the design table does not reflect reality. The Jobs, Skills and Supply Chain Working Group, which should influence this strategy has yet to be convened. However, BRB has already proceeded with publication of a Procurement Technical Specification for the BRB Local Supply Chain Service. The consultation phase identified in BRB’s supply chain engagement phases does not seem to have been met.</p> <p>BRB has set out four key themes for the consultation phase:</p> <ul style="list-style-type: none"> <li>· Develop ways of working</li> <li>· Early supply-chain engagement activities</li> <li>· Data capture</li> <li>· Build relationship with other support groups.</li> </ul> <p>The Councils are concerned that by not convening the Jobs, Skills and Supply Chain Working Group, developers have not effectively and sufficiently consulted the relevant partners, so as to maximise benefits</p>



Page	Ref.	Comment
		for Maldon and Essex businesses and residents. This is despite the Terms of Reference of this group stating clearly that the group should 'provide an opportunity for stakeholders to influence and support the design and implementation of the Jobs, Skills and Supply Chain Project Implementation Strategies, including the Jobs, Skills and Education Strategy, and the Supply Chain, and Business Engagement Strategy'.
10-16	Table 10.4	The Councils are concerned that the scope of assessment in particular the temporal aspects make assumptions on 'peak' times and that there are no specifics about the methodology of assessment.
10-21	10.4.23	Second sentence seems to read as it should use the word "principal", not "principle".
10-22 and 10-23	Table 10.2 and section 10.5	<p>The MDC Economic Prosperity Strategy has been superseded. Both the Infrastructure Delivery Plan 2013 and Strategic Housing Market Assessments 2014 are being updated for 2020/2021. The table should be caveated to draw on the latest data sources when they are available to the Project.</p> <p>The ECC Economic Plan for Essex 2014 (referenced in table 10.2) has been superseded by the Prosperity and Productivity Plan 2020, which was supplied to QUOD in a previous workshop meeting in July 2020. This should have been updated in order to make sure that data and policies being referred to are accurate.</p> <p>Significant ECC data sources are missing from table 10.2. for 'responses to baseline assessment' and in 10.5. These are now listed below:</p> <ul style="list-style-type: none"> <li>· NEET data</li> <li>· Essex Construction Growth Report 2020-2040</li> <li>· Essex Prosperity and Productivity Plan</li> <li>· Essex Skills for Growth Strategy 2019</li> <li>· North Essex Economic Strategy (Propositions) 2019</li> <li>· South Essex Economic Growth Strategy 2019</li> <li>· Essex Knowledge Socio-economic Overview 2019</li> <li>· Essex Vibrant Socio-economic Report – Grant Thornton 2019</li> <li>· Essex Economic Commission Final Report 2018</li> <li>· Report Reviewing Evidence Base of Economic Commission 2018.</li> </ul>
10-22	Table 10.5	Add the following: 'MDC emerging Local Housing Needs Assessment, Strategic Housing Market Assessment'. Also add 'MDC socio-economic evidence, as developed, relating to the emerging Development Plan Document'.
10-25	10.5.14	Reference should be made to the emerging evidence base informing the future Development Plan Document being prepared by MDC. This evidence base will need to be considered as part of the EIA as and when it becomes available.
10-- 27 and 10-28	Table 10.7	The Councils have yet to see baseline data on supply of workers with relevant skills. A timetable is required which clearly sets out the assumptions about the number of workers required and the skills profile which will be informed by engagement with the local authorities. There should also acknowledge the need for a regular review of this baseline. In table 10.7 Workforce Profile Development is listed as 'ongoing'.

Page	Ref.	Comment
		However, we would expect that based on the experience at Hinkley Point C and Sizewell C, the developer can give a more specific workforce profile based on year 1, 2, 3 etc of construction and operations. We have yet to see any specific data on skills and workforce numbers expected for each of the disciplines identified. This contradicts various positive references to the 'skills and workforce planning strategy' and the 'Jobs, Skills and Supply Chain working group' by the applicant.
10-31 and 10-36	10.6.1. and Table 10.10	<p>The Councils are concerned at the applicant's conclusion that "the effects of construction will not be relevant to the operational phase" as set out in Table 10.10. We have not seen any study that concludes local businesses will not be impacted by the operational phase and so local businesses should remain a potential receptor of impacts during operational phase.</p> <p>The document also states that "post-peak assessment is not necessary" (10.6.10). We question this position, referencing concerns raised with the project team about a localised mini boom and bust cycle, which could lead to increased unemployment and lack of supply chain opportunity after the peak. In this example, assessment and controls will be needed post-peak.</p> <p>Paragraph 10.6.18 states that 'some socio-economic impacts cannot be quantitatively assessed, and in such cases a qualitative assessment will be used'. We would wish to see a list of some areas, or examples, where that would be the case and why.</p>
10-33 to 10-36	10.8 to 10.10	We feel that more consideration and detail is required regarding the potential impacts referenced in tables 10.8, 10.9 and 10.10. Each one of the points raised needs its own study. There needs to be more work undertaken to scope impacts in more detail. It is important that resident engagement and consultation is sought throughout the project.
10-33	Tables 10.8-10	<p>Document should include the impact of 'public perception' on the area or on its 'Sense of Place'.</p> <p>Greater definition of the sources of the impacts on receptors should also be included in the Environmental Statement.</p>
10-35 to 10-37	Table 10.9 and 10.10	We expect significant challenges to the skills, jobs and supply chain in Essex and Maldon District, and we would therefore expect an explicit mention of a skills, employment and business support fund.
10-37	10.8.3	Reference is made to significant adverse effects which could result in further mitigation requirements. Essentially, this describes various forms of financial offsetting. However, no reference or baseline is provided for what a significant adverse effect could be and this should be elaborated on within the report.
10-2 and 10-3	Plates 10.1 and 10.2	On business accommodation, the baseline analysis should recognise the relevant Functional Economic Market Area for different types of business accommodation. We are concerned that it currently does not. We feel that Plates 10-1 and 10-2 should also refer to the commercial property market.
10-22 and 10-23	Table 10.5	We consider the assessment of direct and indirect significant effects of the proposed development on population and human health should also include effects on where people work. Therefore, the evidence base for

Page	Ref.	Comment
		<p>the assessment should include:</p> <ul style="list-style-type: none"> <li>· Essex CC (2020) Essex Prosperity and Productivity Plan</li> <li>· Essex CC (2016) Grow-On Space Feasibility Study</li> <li>· Maldon - Sections 1 and 3 of the Local Plan evidence base: <a href="https://www.maldon.gov.uk/info/20048/planning_policy/9164/pre-submission-local-development-plan-evidence-base">https://www.maldon.gov.uk/info/20048/planning_policy/9164/pre-submission-local-development-plan-evidence-base</a></li> <li>· Maldon - Sections 1 and 3 of the Local Plan evidence base: <a href="https://www.maldon.gov.uk/info/20048/planning_policy/9164/pre-submission-local-development-plan-evidence-base">https://www.maldon.gov.uk/info/20048/planning_policy/9164/pre-submission-local-development-plan-evidence-base</a></li> <li>· Maldon - Sections 1 and 3 of the Local Plan evidence base: <a href="https://www.maldon.gov.uk/info/20048/planning_policy/9164/pre-submission-local-development-plan-evidence-base">https://www.maldon.gov.uk/info/20048/planning_policy/9164/pre-submission-local-development-plan-evidence-base</a></li> <li>· Colchester – Sections 1, 3 and 6 of the Local Plan evidence base: <a href="https://www.colchester.gov.uk/info/cbc-article/?catid=emerging-local-plan&amp;id=KA-02202">https://www.colchester.gov.uk/info/cbc-article/?catid=emerging-local-plan&amp;id=KA-02202</a></li> <li>· Tendring – “Living Places”, “Prosperous Places” and “Protected Places” sections of the Local Plan evidence base: <a href="https://www.tendringdc.gov.uk/planning/local-plans-and-policies/view-our-local-plan/view-technical-studies-and-background-evidence">https://www.tendringdc.gov.uk/planning/local-plans-and-policies/view-our-local-plan/view-technical-studies-and-background-evidence</a></li> </ul> <p>The baseline analysis should recognise:</p> <ul style="list-style-type: none"> <li>· The relevant Functional Economic Market Area for different types of business accommodation</li> <li>· The point in the economic and property market cycle</li> <li>· Any existing supply-demand gaps for different types of business accommodation / services / support</li> <li>· The market failures that have led to these gaps</li> </ul>
10-33	10.7	<p>We consider that within section 10.7, the commercial property market should be included as an additional potential receptor. The assessment of likely significant effects of the proposed development should consider:</p> <ol style="list-style-type: none"> <li>1) Demand for business accommodation. <ol style="list-style-type: none"> <li>a) The nature and extent of requirements arising from the development, its supply chain, and induced multiplier effects</li> <li>b) Relationship with future spatial and economic drivers (e.g. regeneration projects, transport infrastructure improvements)</li> <li>c) Relationship with wider sectoral and market trends</li> </ol> </li> <li>2) Supply of business accommodation <ol style="list-style-type: none"> <li>a) The nature and extent of impacts on quality, availability, and affordability of different types of business accommodation</li> <li>b) Relationship with future pipeline</li> <li>c) Relationship with future deliverability challenges</li> </ol> </li> </ol>
10-36	10.8	<p>We feel that with reference to section 10.8, measures to avoid, prevent or reduce and, if possible, offset likely significant adverse effects should also be proposed with consideration of:</p> <ul style="list-style-type: none"> <li>• Market failures preventing any supply-demand gap from being closed in a timely manner</li> </ul>

Page	Ref.	Comment
		<ul style="list-style-type: none"> <li>• Financial sustainability and resilience to economic shocks, market obsolescence and climate change</li> <li>• Maximising opportunities, including to increase skills, business productivity and support the move to a circular Socio-economic</li> </ul>
		<b>Tourism</b>
10-2	10.1.7	In 10.1.17, both beneficial and adverse socio-economic conditions are outlined for the three main workstreams; but no reference is made to tourism impacts - positive or negative, despite the acknowledgment that it is wide reaching across all three workstreams. This should therefore be changed.
10-3	Plate 10.2	The presentation of the diagram appears to suggest that the socio-economic parameters once completed are, in turn used to inform the baseline, which once completed, in turn is used to inform the effect strategies. This is misleading, as it is not in reality passing from one stage to the next, as it is not based on the prior completion of the earlier stage. This diagram should be improved to illustrate that there is a degree of fluidity in all of the stages as information becomes available, studies are completed, etc. which may mean earlier assumptions need to be revisited as specified in 10.3.4.
4-5	Table 10.1	The workstream diagram able 10.1 does not demonstrate the far-reaching influence of tourism across all workstreams. This is regarded as a fundamental flaw in the approach and this should be reviewed to ensure the economic and social baseline for tourism is more fully captured.
10-5	10.2	<p>The socio-economic assessment (10.2) fails to recognise the potential impact of the project on reputation, brand and 'Sense of Place'. This may be experienced by businesses, local brands, residents and visitors with wide reaching effects across economic, tourism and community. Scope should recognise 'Public Perception' or 'Impact on Sense of Place' as a parameter of the Project.</p> <p>MDC's Corporate Plan and related Thematic Strategies are missing from the list on Table 10.2.</p>
10-6	Table 10.2	<p>The review of legislation and policy relevant to socio-economic is too overly focused on energy, economy, housing and planning. It does not represent a review of appropriate socio-economic legislation and policy, particularly in respects to community, tourism and recreation.</p> <p>As a minimum, it is considered the following are also relevant:</p> <p>Legislation</p> <ul style="list-style-type: none"> <li>• Town &amp; Country Planning Act 1990 (as amended)</li> <li>• Planning and Compulsory Purchase Act 2004</li> <li>• Localism Act 2011</li> <li>• Planning Act 2008</li> <li>• Human Rights Act 1998</li> </ul>

Page	Ref.	Comment
		<ul style="list-style-type: none"> <li>• Housing Act 2004 (as amended)</li> <li>• Homelessness Reduction Act 2017</li> <li>• Homelessness Act 2002</li> <li>• Civil Contingencies Act 2004</li> <li>• Police Act 1996 (as amended)</li> <li>• The Police, Fire and Crime Commissioner for Essex (Fire &amp; Rescue Authority) Order 2017</li> <li>• Natural Environment and Rural Communities Act 2006</li> <li>• Countryside and Rights of Way Act 2006</li> <li>• Education Act 1996</li> <li>• Academies Act 2010</li> </ul> <p>National Policy</p> <ul style="list-style-type: none"> <li>• Tourism Sector Deal 2019</li> <li>• Industrial Strategy 2018</li> <li>• Department for Education Strategy 2015-2020</li> </ul>
10-18	10.4.1 and 10.4.2	Owing to its visual impact and geographic proximity, Mersea Island, the Colne Estuary and associated coastline (in Colchester Borough and Tendring District) needs specific consideration particularly in relation to tourism effects (10.4.2).
10-20	10.4.12	The Councils do not consider that the EIA is appropriate to limit its consideration of the Tourist economy on the location of tourist accommodation only. Tourism in Maldon District and the surrounding areas is not defined by accommodation; the reasons why people choose to spend time in the District and surroundings are just as important and it is disappointing that these reasons are consistently downplayed by the applicant and its submissions.
10-22, 10-23	Table 10.5	Table 10.5 should also include Maldon District Economic Study (Hatch Regeneris), Visitor Accommodation Baseline Study (contractor TBC) and Maldon District Tourism Volume and Value Study (Destination Research).
10-24	10.5.8 Table 10.6	In 10.5.8, the Councils would strongly dispute the accuracy of the data provided by Visit Britain. As mentioned on Visit Britain's website 'not all businesses are listed in the sources we use and it's not always possible to source detailed information about numbers of rooms and bed-spaces.' Data is also from 2016, which we would also suggest is now out of date as the local industry has diversified within that timeframe with an increase in options like Airbnb. Whilst this sort of desktop audit is helpful, it does not provide any analysis of occupancy levels and their variation throughout the year. The Visit Britain occupancy data is reliant on contributing establishments providing input, that evidence suggests is unlikely to be local to the area. We welcome the fact the issue of accuracy has been acknowledged by the developer's project team. Visit Britain data has been discussed at length with the project team and challenged as to the accuracy. Additional benchmarking exercises are understood to have been conducted, but have yet to be shared with either Council.
10-30	10.6.4	Fourth bullet - 'Tourism effects'. The Councils consider this whole paragraph to be hard to understand. Unlike previous bullets, there is no

Page	Ref.	Comment
		geographic reference provided. It is not clear how any scale of importance or weighting is proposed to be determined.
10-31	10.6.13	The Councils consider that this should also include 'public perception' of 'Sense of Place' as a receptor, which has previously been presented to the developer by the local authorities as being an area where impacts could be felt in the tourism economy.
10-32	10.6.14	The Councils remain concerned that many local receptors are based on heavily rounded data sources that do not change year on year or contain very large yearly changes that have been considered outliers. We feel that where such information has limitations it should be clear and caveated where necessary.
10-32	10.6.17	It is considered that in addition to "significant" and "not significant" that "cumulatively significant" should be added to reflect some effects may not be significant or not significant alone. We feel that there should also be some parameters established defining how "professional judgement" will be applied, where necessary.
10-32	10.6.18	It is considered that there should be some elaboration on defining how qualitative assessments will be undertaken and applied.
10-37	10.8.3	This paragraph reasserts the point that the applicant is only examining tourism from an impact on accommodation, which we consider to be too narrow a focus for this workstream. It is welcomed that the concept of specific funds used to help mitigate in other NNB projects have been identified as possibilities for use in this project.
10-38	10.9.5	The Councils would like to point out that 'visitor' workers will have their own impacts, and these must be properly assessed.
		<b>Housing &amp; Accommodation</b>
10-2	Plate 10.2	Potential significant effects on the housing market as a result of the operational phase of the development is omitted from this diagram and should be added.
10-4	10.1.12	The housing and accommodation section should include a commitment for the EIA to consider the emerging evidence base documents being prepared by MDC for the Bradwell B Development Plan Document, as they are likely to be relevant to assessing impacts within this area.
4-6	4.3.14	Any strategy produced in relation to the provision of accommodation should seek to use the most up to date data sources available rather than those quoted. Presently all scoping documents rely heavily on the 2011 UK Census data, which gives an outdated picture of both Essex County and the Maldon District.  If Census data is used without more recent, appropriate updates, it risks skewing the understanding of the baseline and mitigation requirements, risking how effectively it will address the impacts arising from the development.
10-19 and 10-20	10.4.13 to 10.4.16	This housing assessment must not be limited to the location of accommodation, it must also consider all supply side assets (10.4.13). The Councils do not believe that this assessment takes into account the wider impact of capacity on visitor accommodation bed spaces. We feel

Page	Ref.	Comment
		this should be assessed in a wider capacity than just at ward level. The overspill will impact wider than specified in 10.6.4.
10-19 and 10-23	10.4.5 to 10.4.8 plus 10.5.1 and 10.5.2	Very precise assessment data has been provided in this section for workforce requiring accommodation within the defined 60-minute travel area. 3,100 people is almost 5% of Maldon District's whole population. It is not clear how this conclusion has been reached. There is an assumption that the workforce can be recruited as expected. We would suggest that these 'estimate' figures are reviewed periodically, due to economic impacts such as a global recession impacting on the availability of a suitable workforce.
10-22-10-24	Table 10.5 plus 10.5.1 to 10.5.9	The Councils note that no evidence is referenced to ensure assessment is made in conjunction with other influences such as existing seasonal visitors, or recreational impacts such as large-scale events in the locality. There also does not appear to be the capacity of existing accommodation referenced as relevant or covered within the scope of assessment. Though reference is made in Table 10.6 to estimated bed spaces, it is unclear where this data has come from, although we have assumed it came from Visit Britain, but it is unclear and not referenced. We have mentioned above our concerns about Visit Britain as a data source.
10-25	10.5.14	The MDC Local Development Plan was adopted in 2017 and the plan-period ends in 2029. In accordance with the NPPF, the LPA must review whether the LDP needs to be updated at least every 5 years. The Local Development Scheme was adopted in February 2020 stating that a separate, thematic Development Plan Document would be produced for growth arising from Bradwell B that is not catered for in the development strategy in the LDP. This background should be reflected in the Scoping Report to ensure the wider planning policy context is captured.
10-31	10.6.5	In 10.6.5, with a build program lasting about 10-12 years, we question if 'long term' (defined in the report as meaning 5-10 years) is appropriate, given anything after that is defined as 'permanent' – when in fact the plant would still be under construction. These timescales should be reviewed to ensure they are appropriate in the context of this Project.
10-33, 10-34	Table 10.8	<p>Table 10.8 states that 'accommodation' is a potential receptor. This should be expanded and clarified as "the housing market including non-market housing (i.e. affordable and social housing)". Affordable housing needs to be mentioned in particular we are concerned that there will likely be an increase in private rented sector (PRS) demand from construction workers and this could result in increased competition with existing households in the area, potentially pushing households out of PRS stock and onto the affordable housing registers.</p> <p>In addition, we feel that the receptor should be people-based (i.e. households) rather than the current conceptual notion of 'accommodation'. This point should be repeated when the Scoping Report considers the effects of the construction phase and the operation of the power station on housing and accommodation.</p>

Page	Ref.	Comment
10-35	Table 10.9	The effect on receptors for accommodation should be expanded and clarified as “the increase in demand for housing market including effects on non-market housing (including affordable and social housing)”. This is needed to reflect the potential impact of a significantly sized new workforce operating in the area. The last column should also state “all housing and accommodation sectors and tenures”.
10-21	10.4.20	We would just like to clarify to avoid confusion that the Department of Communities and Local Government (DCLG) became the Ministry for Housing, Communities and Local Government (MHCLG) in 2018 and references should be changed throughout the whole document where documents were published after the name change.
10-5	10.2.1	Chelmsford City Council needs to also be referenced as a neighbouring (and host for some Associated Development) authority in 10.2.1.
4-6	4.3.15	The submission describes surplus temporary and permanent housing being released as housing stock. The exact intention behind this needs further clarification e.g. i) Will the stock be gifted and if so, who to (LA or HA)? ii) Is the intention to deduct the cost of this gifted housing from any mitigating sums? The submission overall provides inadequate information on the proposals for permanent housing.
10-20	10.4.16	Maldon District Council is currently updating its Strategic Housing Market Assessment, including a review of the Housing Market Assessment boundaries. This is through the work of the Local Housing Needs Assessment. Paragraph 10.4.16, whilst noting what the Local Development Plan considered in 2017 to be the Housing Market Area, should also reference that where available, any more recent evidence-based studies undertaken to review the housing market and local needs will also be used to inform the study areas.
6-41	6.6.13	We are concerned that the gravity models are considered to be similar to Bradwell B’s context, given Hinkley Point C, Sizewell C and Wylfa Newydd sites are noticeably smaller in scale. Our general research on HPC indicates the actual local socio-economic situation is very different from what was modelled as the predicted impact during the DCO. In light of this, it is considered that the developer needs to draw greater learning comparisons from HPC.
6-43 & 10-22	6.6.29, 6.6.30, 6.6.33, 6.6.34; Table 10.5	<p>The challenges presented by Covid-19 has stalled many construction projects. This could have an effect on the amount of stock available in future years. Outside of the provisions of the Maldon District LDP and Neighbourhood Plans, the scale of development is otherwise limited:</p> <p>Additionally, as the BRB project intensifies, an influx in BRB workers into District is likely to have repercussions on local property prices and availability of both rental and freehold stock.</p> <p>When assessing the regional and district picture, the following data sources would be far more accurate than relying on the outdated Census 2011 datasets:</p>



Page	Ref.	Comment
		<p>1) ONS – <a href="https://www.ons.gov.uk/peoplepopulationandcommunity/">https://www.ons.gov.uk/peoplepopulationandcommunity/</a></p> <p>2) Official statistical data across a range of Socio-economic and labour market queries (regularly updated)</p> <p>3) NOMIS - <a href="https://www.nomisweb.co.uk">https://www.nomisweb.co.uk</a></p> <p>4) Official Labour Markey data sets (2019 data available)</p> <p>5) Land Registry UK House price data - <a href="https://landregistry.data.gov.uk/app/ukhpi/browse?from=2019-08-01&amp;location=http%3A%2F%2Flandregistry.data.gov.uk%2Fid%2Fregion%2Fmaldon&amp;to=2020-08-01&amp;lang=en">https://landregistry.data.gov.uk/app/ukhpi/browse?from=2019-08-01&amp;location=http%3A%2F%2Flandregistry.data.gov.uk%2Fid%2Fregion%2Fmaldon&amp;to=2020-08-01&amp;lang=en</a></p> <p>6) Official ownership and rental market and property data (2019 data available)</p> <p>7) Hometrack (Housing Market intelligence data (regularly updated) - <a href="https://www.hometrack.com/uk/products/market-intelligence/Socio-economic-intelligence/">https://www.hometrack.com/uk/products/market-intelligence/Socio-economic-intelligence/</a></p> <p>8) National Housing Federation - <a href="https://www.Socio-economic.org.uk/resources">https://www.Socio-economic.org.uk/resources</a></p> <p>9) When assessing traffic models, a better data source can be found below: <a href="https://www.gov.uk/government/collections/road-traffic-statistics">https://www.gov.uk/government/collections/road-traffic-statistics</a></p>
3-20 & 4-6	3.6.6 & 4.3.15	<p>We are concerned that the statement of 500 permanent dwellings being ‘somewhere on the Dengie Peninsula’ is currently an unclear parameter of the project. Depending on the spatial location there will be very different impacts on transport, socio-economic, ecology and other receptors. This lack of clarity is especially concerning as the submission is deficient in identifying how the need for permanent housing for workers will be assessed by the developer, as highlighted above in relation to Plate 10.2 and Table 10.8. In this context, it is worth noting that work has already been started by Maldon District Council on preparing for a Bradwell B DPD to specifically plan, using a sustainable approach, for the likely quantum of growth arising from an approved power station that is not otherwise planned for in its Local Development Plan.</p>
4-6	4.3.13-4.3.16	<p>The EIA needs to assess the benefits of providing/facilitating permanent housing in the Maldon District, or neighbouring Districts as an alternative to (or complementary to) the proposed temporary worker accommodation campus. Doing so could provide a number of social, environmental and economic benefits to the area.</p>
10, 12, 14		<p>The EIA Scoping (Volume 1) and Scoping Report Figures 3.3, 3.5 and 6.1(Volume 2) omit the housing growth areas in Maldon and Heybridge currently under construction that should be included as baseline information. The South Maldon Garden Suburb (SMGS) is delivering</p>

Page	Ref.	Comment
		1,428 new homes [approx. 300 delivered to date] and North Heybridge Garden Suburb (NHGS) is delivering 1,367 new homes [approx. 200 delivered to date]. The SMGS is served by the A414 and Fambridge Road within 'Route B Inbound' and 'Search Area Maldon for Park and Ride facilities'. Residential developments adjacent the highway network on Route B are 'receptors' to air quality, noise and vibration. SMGS and NHGS areas and their supporting highway improvements should therefore be included in the EIA Scoping baseline data.
6-43	6.6.29	For the avoidance of doubt, we wish to advise that the Private Rented Sector in Maldon District is very limited in scale.
6-44	6.6.29	It is felt that the scale of likely owner occupiers would be useful to state in the Report, as otherwise it is an empty consideration.
		<b>Community</b>
10-20 and 10-21	10.4.17 and 10.4.18	In reference to paragraph 10.4.17 and 10.4.18, we need greater clarity on what constitutes 'community services'. Leisure and sports are being mentioned at a district scale, but there is no mention of other community services such as or example community health, blue light services, and the voluntary service.
10-20	10.4.17	We are concerned that the developer should not assume all services are planned for at either a district or county scale as set out in 10.4.17. Some critical community services, such as healthcare, ambulance and coastguard services operate within their own broader geographic scales which do not respect local authority administrative boundaries.
10-26	10.5.16	The Councils would welcome clarity as to why the provision of community facilities and social infrastructure over the medium-term is highly uncertain. If the baseline is inadequate to make this judgement, it should be identified as a gap and working with local authorities and service providers, it should be updated to improve chances that the impacts on these areas will be suitably mitigated.
10-30	10.6.4	We are concerned that this focuses predominantly on blue-light services. However, we would also expect that the scope should be wider to factor in the voluntary sector and healthcare systems including GP provision. The IDP (2013 – being updated in 2020) reported that the level of GP provision in the District was deemed 'insufficient' by the Mid Essex Health Needs Assessment and there was an over-registration already.
10-33	10.7 and Table 10.8	We acknowledge that the effects of the Project may be experienced differently by different population groups as referenced in 10.7. Population groups need to be identified and engaged with through qualitative consultations. This should include vulnerable groups. Further studies may need to be undertaken regarding the potential inequity of effects and their significance to groups with protected characteristics as identified by the Equality Act 2010 (Table 10.8).
10-33 and 10-34	Table 10.8	The Councils are concerned that Table 10.8 makes no mention of the potential effects on community cohesion as a result of both a temporary and permanent change in population characteristics throughout the Project. There needs to be further consideration on this matter exploring

Page	Ref.	Comment
		the establishment of a suitable and sufficient baseline and examination of the key socio-economic influencers. Without this work, it is difficult to understand how the temporary and permanent populations and existing communities can live side by side positively without fear and support each other as a common community. Given the current baseline is lacking, we feel it is so important it warrants its own bespoke study. The study would review what the Project needs to recognise as community cohesion receptors so as to ensure it can become a good neighbour to its communities and how the workforce and local resident populations can adapt and live and work in harmony with the minimal disruption and maximum support for each other.
10-36	Table 10.10	With respects to receptor or receptor groups, care should be taken in the use of the words “local” or “locally”. Elsewhere in the Scoping Report this is defined as being within the Maldon District. However, the Spatial Scales could see local as being within the 60/90 minute travel zones which the gravity models are based on and this geographic area is more sub-regional/regional. For community services in particular, the geographies which they are either commissioned and supplied against, do not always follow the local authority boundaries.
10-37	10.8.3	The Councils are encouraged to see the developer expressing the need to implement a Community Fund as one of the ways to mitigate the harm that would otherwise be caused by the development. We would welcome the details of this to be expanded to understand how the developer would capture the impact of the project across all communities, including vulnerable and under-represented groups to improve the equity of mitigation. There may be other measures to mitigate adverse effects or maximise benefits.
General		The Councils welcome that nothing has been scoped out of the socio-economic assessment. We also welcome discussions going forward with the applicants on how potential significant adverse impacts can be avoided, mitigated or offset and how potential benefits could be maximised.

## 2.6. HUMAN HEALTH

Firstly, it is necessary to predicate the comments made in this Section and the Councils’ response to the Health Chapter by stressing the strategic and operational impact COVID-19 is having on the Health and Wellbeing capacity. This is causing unprecedented resource implications for Local Authorities and healthcare agencies. Whilst this response, therefore, seeks to be as comprehensive as possible, given the time to respond is set by law at a period of four weeks, and the availability of staff during this time, it is requested that BRB continue to effectively engage with the Councils and healthcare agencies on this key and important topic going forward.

It is also noted that the Planning Inspectorate have consulted the Clinical Care Commissioning Groups and the NHS on this Scoping Report. These comments relate to the health aspects raised within the report, however, due to time and resource constraints this has not been shared with the Clinical Commissioning Group (CCG).

The current EIA Regulations identify the need to consider potential implications of a proposed development on human health. It is noted that the health impacts will be covered within the Environmental Statement (ES) and it is intended to form a dedicated health and wellbeing chapter within it. The importance of this cannot be underestimated, as the Scoping Report itself suggests the impact on health of a development of the magnitude as proposed will be hugely significant and be relevant, by association, to a significant number of Chapters in the eventual ES (i.e. Air Quality, socio-economics, recreation, amenities, etc). It is for this reason, which both councils feel that whilst not a statutory requirement for EIA, that a Health Impact Assessment would demonstrate that the developer is leading the way in integrating such a tool for the iterative design and evaluation of its scheme, its impacts and benefits.

Prior to the DCO's submission, a full and robust period of engagement is needed between all health stakeholders to ensure the relevant parties have been able to contribute into the Project's development and appraisal. At present it is considered there is insufficient detail on mitigation as far as this relates to health contained within the report to provide an assurance that this has been considered in full.

At this time prior scoping work has been done under the auspices of a Human Health Workstream, which health and wellbeing officers have had difficulties in attending and responding to (COVID-19). The Councils request that formal meetings are scheduled to discuss health alone and are attended by representative of a number of health disciplines.

It is acknowledged that continued engagement is key to "design out" as many possible health impacts that may be felt by the immediate and wider communities and on existing services. We consider therefore, that the establishment of a multi-agency Human Health Working Group would be of more benefit to the project with issues being able to be worked through and discussed to input into the future health chapter. This would be a welcome and key step forward in the working relationship and will continue to evolve and inform as the project moves forward.

There is no mention of vulnerable groups within the Scoping Report and the requirement of suitable services to mitigate against any impact. The site location is within a distinct rural area with an ageing population demographic who could be considered to be more vulnerable and who could be significantly affected by the development. For example, those receiving home-based care, or in residential care. It is noted, for example, that a dementia care unit stands on the boundary of the development site.

The Report also pays no reference to future community anxiety and stress that the construction may cause in the latest report, and this needs to be considered.

The Council's would welcome involvement in the development of the workers code of practice and workers induction paperwork to set out what is expected on and off site as well as other areas such as links to include health promotion opportunities. The impacts of this on exiting rural health services should be explained and considered once the Occupational Health provision on site has been established and then the way it will interact with the existing services. This includes a full understanding of the drug and alcohol testing and treatment arrangements, as well as sexual health screening, testing and treatment arrangements that may or may not include contract tracing. Where there are deficits in the onsite provision, then suitable mitigation will need to be discussed for those workers who may require access to the community service(s).

The worker accommodation highlights a range of diversionary activities which is welcomed to reduce risk taking behaviours for example on site recreational activities which will promote physical

and mental wellbeing. This should be easily accessible for those outside the campus, including those residing at adjacent caravan sites or in private accommodation.

It is welcomed that the Scoping Report makes reference to the published Essex Design Guide which has a comprehensive section dealing with Health and Wellbeing; although it is disappointing that the Health Impact Assessment is not being taken forward as an exemplar for this NSIP. This sets out, in 10 bullet points, what can be done by a development to improve and enhance health and wellbeing and we look forward to engaging with the Council on the same.

The comments from the Council's specific to the Human Health Chapter are as below, but as discussed above there will be additional health implications out forward in relation to other Chapters, including transport, air quality etc.

There are several areas of apparent duplication in the text, which require further consideration to improve readability.

Page	Ref.	Comment
11-3	Plate 11.1	The Councils have a more up to date revision of this document containing more detail which features in page the Health and Planning Chapter of the Essex Design Guide, a link to this document is below:  <a href="https://www.essexdesignguide.co.uk/media/2262/essex-healthy-places-advice-notes-for-planners-developers-and-designers.pdf">https://www.essexdesignguide.co.uk/media/2262/essex-healthy-places-advice-notes-for-planners-developers-and-designers.pdf</a>
11-1	11.1.2 11.1.3	The Councils support the objectives.
11-1	11.1.4 11.1.5	The Councils welcome this joined-up approach, which demonstrates the multi-disciplinary nature of human health.
11-2	11.1.8	This data was collected pre-COVID19, hence physical & mental health baseline data has been significantly impacted during this time. The changes and new data collection are ongoing. An additional explanation of this is necessary.
11-3	11.1.11 11.1.12	This recognises the importance of considering the wider determinants of health, a broad and inclusive approach that the Councils would support.
11-3	Overall	The Councils would welcome involvement in the development of the workers code of practice and workers induction paperwork to set out what is expected on and off site as well as other areas such as links to include health promotion opportunities. The impacts of this on exiting rural health services should be explained and considered once the Occupational Health provision on site has
11.3	Overall	The report does not mention the risk of future community anxiety and stress that the construction may cause, this needs to be considered.
11-4, 11.26 & 11.37	11.1.15 11.1.16 11.7.10 11.8.2	There are some sections of the report which are repetitive and should be considered together for clarity purposes. 11.1.15 and 11.1.16 repeat the text of 11.1.4 / 11.1.5.

Page	Ref.	Comment
		11.7.10 and 11.8.2 also duplicate 11.1.5 and 11.1.16 to a large extent, albeit the list of cross-referenced chapters have been reduced in 11.7.10 and 11.8.2 for reasons that are not immediately apparent. Similarly, in 11.7.10 project effects from the full extended list in 11.1.5 and 11.1.16 would also be potentially significant on human health. If potentially significant effects have been identified in 11.1.5 and 11.1.16, then it seems logical and appropriate to also consider mitigation effects and the same chapters should be listed in 11.8.2 - the exclusion of Chapter 15 Water and Chapter 16 from 11.8.2 seems to be a particular omission.
11-5	11.2.1	Chelmsford City needs to be referenced as a neighbouring Authority.
11-6	Table 11.1	<p>The councils are concerned that this table has omitted relevant legislation, policies and strategies, the following indicative, but not exhaustive, list should be added:</p> <p style="text-align: center;">National</p> <ul style="list-style-type: none"> <li>• The Care Act 2014</li> <li>• Health &amp; Social Care Act 2012</li> <li>• Control of Noise (Codes of Practice for Construction &amp; Open Sites) 2002</li> <li>• National Obesity Strategy (emerging)</li> </ul> <p style="text-align: center;">County/Sub-Regional</p> <ul style="list-style-type: none"> <li>• ECC Walking Strategy,</li> <li>• Mid and South Essex Health and Care Partnership 5-year Strategy</li> <li>• Active Essex Shaping our Future Strategy,</li> <li>• ECC Mental Health and Wellbeing Strategy,</li> </ul> <p style="text-align: center;">Local</p> <ul style="list-style-type: none"> <li>• MDC Green Infrastructure Strategy</li> <li>• Chelmsford Health and Wellbeing Strategy</li> <li>• Livewell Accreditation</li> <li>• MDC Corporate plan and MDC thematic strategies of Place, Prosperity &amp; Community In addition the consideration of planning for health national work (for example within the White Paper),</li> <li>• Maldon District Cycling Strategy,</li> <li>• MDC and ECC Air Quality Action Plan 2020 - 2025- In fulfilment of Part IV of the Environment Act 1995</li> <li>• MDC Climate Change Strategy 2020/2021; and</li> <li>• MDC Tenancy Strategy.</li> </ul>
11-9	Table 11.1	The councils feel that given the NPPF is subject to change, this needs to clarify that this reference is to the 2019 version of NPPF.

Page	Ref.	Comment
		<p>We think the reference cited to <i>Paragraph 8</i> of NPPF should be corrected to state <i>Section 8</i>.</p> <p>The applicant's scoping of NPPF is considered too sparse as it should identify relevance of paragraph 92 b)</p>
11-9	Table 11.1	The council support the inclusion of the Essex Joint Health and Wellbeing Strategy 2018 however, the scoping of this key source is very sparse and needs to be expanded.
11-11	Table 11.2	<p>The councils feel that:</p> <p>(1) Health Impact Assessment, is dated 2012 and if this is superseded during the DCO process an additional Assessment should be referred to.</p> <p>(2) The implications of Marmot Review in making decisions on Health and Wellbeing implications should be made more explicit.</p>
11-11	11.2.6	Add the ECC Developers Guide to Infrastructure Contributions
11-11	Table 11.2	The reference to PPG does not specifically identify / point to the Healthy and Safe Communities section of the PPG. The scoping of this part of the PPG needs to be revisited and accordingly made fuller.
11-11	Table 11.2	<p>The Councils welcome the inclusion of the review of the Essex Design Guide, Health Impact Assessment (online, accessed August 2020) (Ref 11.19) as a key reference source for local HIA practice.</p> <p>We also welcome the inclusion of 'Reuniting Health with Planning' by TCPA (2012, doc. ref 11-17) although further related TCPA publications on this subject may also be useful in this regard</p>
11-12	11.3.1	The content and approach of this section on Consultation and Engagement are welcomed and supported, including the establishment of a Human Health Working Group. ECC commends the process described to inform the scope of the assessment, baseline context and design / mitigation measures
11-14	Table 11.3	<p>The Mid and South Essex NHS Sustainability and Transformation Partnership (STP) should be amended to read "(from January 2020 the Mid and South Essex Health and Care Partnership)".</p> <p>Clarification is needed as to the acronym CCC in "Points of Discussion", for example does this refer to Chelmsford City Council as this should be MDC as in Maldon District Council (MDC), unless CCC attended as well.</p>
11.17	11.4.3	Additional data is available in the form of LSOA data (smaller areas than local authority) for a number of health priorities e.g. obesity and mental health from Quality and Outlines Framework for the NHS data in the following link (Essex open data - <a href="https://data.essex.gov.uk/">https://data.essex.gov.uk/</a> )
11-17	11.4.4	The Councils feel that the baseline areas should be consistent throughout the submission to include Maldon, Chelmsford, Rochford, Braintree & Colchester. In addition, wards that are impacted by the planned transport routes to Bradwell B from the strategic road network, in addition to the wards that are located close to the development should also be scoped into the study areas. Figure 11.1 should be updated to include all potentially affected Council areas, and not only Maldon and Chelmsford.

Page	Ref.	Comment
11-19	Table 11.5	For clarity, the Councils would like to correct the following typographical errors: (1) Sport England not Sports England (2) Maldon JSNA not HNA (3) Essex Open Data (e.g. includes QOF data) has data pertaining to our health priorities The data sets as set out in this Table seem to be quite narrow in scope. For example, there is data from the Department of Work and Pensions data e.g. benefit claimants - to assess wider health determinants Ref 11.29 – this is not the most recent, should read 2019 Maldon District JSNA
11.19	11.5	Data, such as life expectancy, should be broken down into ward levels, not just district, which can be found in the following link: <a href="https://fingertips.phe.org.uk/search/deprivation#page/0/gid/1/pat/101/pat/E07000074/ati/8/are/E05004190/cid/4/page-options/ovw-do-0">https://fingertips.phe.org.uk/search/deprivation#page/0/gid/1/pat/101/pat/E07000074/ati/8/are/E05004190/cid/4/page-options/ovw-do-0</a>
11.20-11.21	11.5.8	It is to be noted that there are a number of Large Strategic Output Areas in the most deprived in country within the 90 minute zone (~40%) that could be considered and included to ensure the most deprived areas are not prejudiced by the proposal and methods to enhance the same included where relevant.
11-21	11.5.11	This paragraph appears to focus simply on adverse impacts on human health and accordingly on mitigation. Given the broad nature of the wider determinants of health, it could also helpfully mention unintended consequences / impacts, cumulative impacts and also beneficial impacts.
11-21	11.5.12	This does not seem to be a comprehensive list and more like summary headings. These studies should be arrived at with relevant stakeholders to determine key list of relevant studies e.g. studies need to be relevant to the study area.
11-22	11.5.12	At the second bullet point (transport) does not mention transport network assessment / modelling (as mentioned in Chapter 6 – Transport) but these impacts are likely to be considerable, particularly during the long construction phase. This conclusion is confirmed in paragraph 11.7.10. This work will need to inform a transport / access strategy and mitigation where necessary (such as air quality measures). Potential health and quality of life impacts need consideration.
11-22	11.6.2	Whilst it is not relevant to list all population categories, the councils feel that specific mention should be given to receptors such as schools. They are particularly sensitive to noise and poor air quality which should be recognised e.g. noise has an overall impact on the quality of education.
11-22	11.6.3	There needs to be clarification as to what supporting assessments are used, what is their scope and who will carry out the assessments.
11-22	11.6.4	In terms of professional judgement this has to be fully explained and rationalised.
11-23	11.6.6	How will the determination of significance of the impact be assessed for Human Health and what role the HHWG will have?
11-23	11.6.7	What is the arbitration process if opinions differ on what is significant or not significant?
11-23	11.7.3	The impact will be significantly different for the two phases.



Page	Ref.	Comment
11-24	11.7.3	The impact will be significantly different for the construction and operational phases, which are significantly materially different and should be set out clearly as such.
11-24	11.7.7	We feel it is reasonable to expect the assessment to include the wider determinants of health.
11-25	Table 11.6	This appears to be a general overview and the councils would expect a more detailed analysis going forward.
11-27	Table 11.7	We feel this needs more consideration and detail regarding potential impacts. It needs to be clearer which ones will require specific investigations and be subject to engagement with the HHWG & other relevant stakeholders. In addition, it is imperative resident engagement is sought throughout during qualitative studies, through future Community Forums etc.
11-27 & 11-32	Table 11.7 & Table 11.8	This appears to imply consideration of only road transport route impacts to human health, but rail and sea transport also needs consideration.
11-27 to 11-32	Tables 11.7 and 11.8	Legacy improvements are welcome, but reference is limited to transport network on 11-31. We feel further legacy improvements should be considered, in particular in terms of general amenity, recreational facilities and routes, green/blue infrastructure and open space.
11-30	Table 11.8	It needs to be recognised that not all mitigation can be contained within the construction site given the uniqueness of the district and the site location. This development will have a significant impact, going much further than adjacent villages and these impacts need to be acknowledged. The Dengie Peninsula's communities are very reliant on the key towns of Maldon & Burnham (and South Woodham Ferrers) for key services and infrastructure and the impact of both the construction and operational phase are considered to lead to significant impacts. This is not fully recognised and needs to be considered and backed with evidence.
11-34 to 11-36	Table 11.9	Whilst it is appreciated that some issues will be more fully covered in other chapters, the phraseology 'Justification for <i>Scoping Out</i> ' and other references to matters being ' <i>Scoped out</i> ' from the chapter does little to reassure that the matters of concern are being given comprehensive appraisal in relation to human health. It would be clearer if Chapter 11 instead included full cross-referencing (e.g. paragraph numbers etc) to other sections of the Scoping Report as appropriate. This would aid readability and provide us with the necessary reassurance that all matters of concern regarding human health are being fully addressed as part of the process.
11-37	11.9.1 & 11.9.2	The current Covid-19 pandemic causes a risk in the impact may be either over captured or under captured. BRB need to develop a comprehensive strategy for managing the risks to the baseline and the impact of Covid-19 to show in clarity how this is best dealt with.

## 2.7. CLIMATE CHANGE

The Councils recognised that future climate change will have significant impact on the development in this coastal location which appear to have been scoped into the proposed Environmental Statement. However, the development itself must also show how it can achieve zero carbon during its lifetime from construction to decommissioning and contribute to net carbon gain. The Councils would wish to see a development, should it approved, that delivers more than clean electricity but also seeks to maximise carbon benefits by measures to avoid, prevent, mitigate and offset carbon impacts.

The Councils have concerns that the submission is taking a ‘top down’ approach to the assessment of greenhouse gas emissions and the carbon footprint of the proposed development. The climate change impacts of the development would be brought about by a wide range of impacts across a wide range of individual topics and with impacts at a local as well as a global level. These could include, but not limited to; transportation (electric vehicles and charging points, use of public transport, car sharing, sustainable low carbon traffic modes etc); the built environment (the accommodation proposed, the power station buildings etc); green infrastructure (planting, Sustainable Urban Drainage, greenhouse gas emissions, air quality etc). The Councils ask that the Environmental Statement in relation to greenhouse gas emissions incorporates more fully the assessment of these impacts across topic and identifies where the proposed development has maximised opportunities to minimise adverse effects and maximise positive effects, including site specific and local interventions.

The Councils are also concerned that the proposed assessment of impacts does not take into account the potential impacts over the lifecycle of the proposed development. Given the lifetime of the development as proposed, with approximately 12 years for construction, followed by 60 years of electricity production, then a period for decommissioning we consider that the assessments should have a temporal scope of at least 90 years to include construction, operation and decommissioning of the proposed development. Also, as the proposal includes an Interim Spent Fuel Store as part of the decommissioning proposals it is likely that this will have a lifetime of 100+ years, therefore the temporal scope for that assessment should be 100+ years. The Councils therefore ask that the temporal scope for the assessments is extended within the Environmental Statement.

The Councils recognise that PINS will receive specialist advice on the impact of climate change on the proposed nuclear power station, including from the Environment Agency.

Specific responses to this chapter of the scoping submission are provided in the table below:

Page	Ref.	Comment
12-1	12.1.2	The Councils agree that the Environmental Statement must fully consider both the project’s positive and negative impacts on climate change through effects on greenhouse gas emissions, and also the vulnerability of the development to climate change. The former has gained importance in view of the global climate emergency.
12-1	12.1.4	The submission states that ‘The aim of the Greenhouse Gases assessment is to identify the extent to which the Project has a material effect on the UK Government’s targets for decarbonisation, with focus on the power sector.’ The Council considers that the aim of the assessment should be to identify the positive and negative climate change emissions from the lifecycle of the project with a view to maximising the benefits and minimising the negative effects.

Page	Ref.	Comment
12-2	12.1.8	The Councils note that the only work to date refers to the Generic Design Assessment (GDA) consideration of the potential impacts of climate change on the proposed reactor technology. No discussions have been held with the Councils on the potential impact the development could have on greenhouse gas emissions and it is assumed that the GDA assessment does not concern itself with this important component of climate change. The applicant's only response to the Councils' comments on climate change made in response to the Stage One Consultation is set out in Table 12.6 of the scoping submission. The Councils would welcome greater engagement going forward.
12-3 to 12-15	Table 12.12	The Essex Climate Action Commission was set up and a series of Special Interest Groups to advise ECC about tackling climate change. The commission has over 30 members over a wide range of senior professionals, local councillors, academics, business people and two members of the Young Essex Assembly. The commission will run for two years initially and make recommendations about how we can improve the environment and the economy of Essex. The findings of the commission will not be published until March 2021, but the applicant should have regard to this emerging advice within the Environmental Statement as it is expected to impact on local policies and aspirations relevant to the proposed development.
12-25 and 12-50	12.4.2 and 12.8.7	The submission states that the Decommissioning of Bradwell B has been scoped out of the assessment This should be amended so a whole life cycle carbon assessment can be assessed as part of the project with the focus on achieving net carbon gains over the entire lifetime of the development. It is fully appreciated that the decommissioning stage of the nuclear facility would be subject to a separate consent and details will be less certain for any assessment.
12-26	12.4.4	The temporal scope for the assessment of greenhouse gases should include the full lifecycle for the development, including decommissioning. It should also include a break down across phases that identifies the net gains achieved or lost by design choices made in the development of the proposal to enable an assessment of opportunities for improved carbon performance.
12-27	12.4.7	In view of the lifecycle of the proposed development it is recommended that the temporal scope of the Vulnerability to Climate Change assessment is extended to include the decommissioning phase of the development.
12-28	12.5.1 and 12.5.5.	The baseline and future baseline should not be referenced against UK energy supply but against the actual local baseline on site. The site, as undeveloped land containing mixed flora and watercourses, is expected to have a small but positive contribution to climate change.
12-36	12.6.1 and 12.6.3	Whilst it is appreciated that a gross comparison will be made to compare the project with baseline, it is asked that net impacts are also identified to allow for a comprehensive assessment. It is not clear whether this is proposed but is implied by paragraph 12.6.3 of the submission that states that 'The assessment would consider all approaches to reduce GHG emissions within the construction, design and operation of the Project.'

Page	Ref.	Comment
12-37	12.6.9	The first sentence is incomplete and does not make sense. The focus on cumulative impacts must include details to identify net and significant components of the cumulative total.
12-37	12.6.10	Carbon emissions from the manufacture of components needed for the construction, operational and decommissioning phases, especially when made abroad, should also be factored in when considering emissions.
12-37	12.6.11	Greenhouse gas emissions should be assessed for all transport modes and options considered or proposed. It is not clear in submission what transport modes are covered by 'surface transport'.
12-38	12.6.13 and 12.6.20	The Councils acknowledge that the global climate is a highly sensitive receptor and consider that the project should maximise benefits to address the current climate emergency. It is therefore considered that, whilst the contribution to national targets should be included, the assessment should also focus on improvements that could be made to minimise greenhouse gas emissions from the project itself. The magnitude of impact could also refer to ambitious project specific targets for carbon footprint reductions showing where improvements are proposed to be delivered.
12-50	12.9.1	The commitment to use the design process to minimise greenhouse gas emissions is welcomed although this should be achieved by avoidance as much as by mitigation of adverse effects and maximising positive effects.
12-50	12.9	The potential for positively using surplus heat arising from the nuclear power station should also be considered, joined up with engagement over the emerging Bradwell B Development Plan Document and any proposals for housing or indirect growth associated with the power station proposals.
12-50	12.9	Section 12.9 of the submission talks about mitigation and procedures for low carbon design. This emphasis is incorrect, the development should adopt the principles of net zero-carbon design given that this nuclear power station will be operational post 2050. This date is when the United Kingdom must meet legally binding targets as outlined in the Climate Change Act 2008 which was amended in June 2019 and committed the UK to change the target for the net UK carbon account from at least 80% lower than the 1990 baseline to at least 100% lower. Therefore, net zero carbon does need to be achieved by the proposed development.
General		The Councils welcome future engagement with the applicant on how potential adverse impacts can be avoided, mitigated or offset and how potential benefits could be maximised.

## 2.8. MAJOR ACCIDENTS AND DISASTERS

Emergency Planning for the life of the development should be the subject of further stakeholder engagement and reported back as such in the eventual Environmental Statement, and which should show how these outcomes have informed the assessment. Where professional judgement is used this should be explained and the limitations this places on any assessment discussed. Community engagement through a Community Safety Plan is also necessary, and necessary and be conditioned and funded by way of any future Development Consent Order submission.

The baseline information submitted with other technical assessments may not be sufficient to undertake the assessment of major accidents and disasters, and it is requested that the Applicant undertakes an analysis of any gaps in the information and carry out any further studies and surveys if required. The details of any further studies should be provided in the Environmental Statement (ES). Factors influencing potential changes to the baseline in the future should also be considered and reported in the ES.

For both the construction and operational phases of the development the impact of accidents at adjacent land uses are defined as risks in the Scoping Report. However, major hazards may arise from uses more distant from the site and should also be taken into account. The lists of potential construction and operational impacts cannot be regarded as conclusive at this stage and the potential for further impacts should not be discounted in the assessment.

The Councils acknowledge that the Office of Nuclear Regulation and Environment Agency also have important licencing and permitting roles outside of the Development Consent Order process to ensure the safety and security of any nuclear site proposals.

Specific responses to this chapter of the scoping submission are provided in the table below:

Page	Ref.	Comment
13-1	13.1.4	There should be reference in this Section to atmospheric Contamination.
	13.2	The MCA Response and Recovery to a Maritime Pollution Incident impacting the shoreline should be included as this has implications for the Harbour Authorities as the shoreline will be used for the delivery of construction materials and throughout the life of the development.
13-2	13.2	Reference to the ERF Strategic Coastal Protection Plan 1.0 is missing and should be added.
13-26	13.4.6	Consideration should be given to extending the 20km limit for aerodromes to include nearby London Southend.
13-29 and 13-56	13.5.2 and Table 13.13	This chapter does not adequately capture the heritage assets of the site. The main site has Listed Buildings, locally listed buildings, the former WWII airfield and potential archaeological assets that have not been picked up as potential receptors.
13-33	13.5.31	MDC is currently producing a Bradwell B Development Plan Document, and will in due course review the current adopted Local Plan, and so it is premature to predict the future baseline for the project.
13-35	13.6.4	PINS are asked to seek specialist advice on the benchmarking of environmental (non-human) major accident and disaster tolerability. Natural England may provide specific advice.
13-35	13.6.4	PINS are asked to seek specialist advice on the benchmarking of environmental (non-human) major accident and disaster tolerability. Natural England may provide specific advice.
13-35	13.6.7	The applicant advises that 'The fact that the Project is currently in the early design stage means that the estimates will be necessarily qualitative and based on expert judgement informed by comparison against experience in similar industries and for similar developments, where practical.' The Councils ask that the Environmental Statement (ES) is informed by well- developed designs that support a specific

Page	Ref.	Comment
		assessment for the proposals. By contrast with the Generic Design Assessment, the ES relates to a specific locality and proposal.
13-38	13.6.16	Again, the Councils do not consider that Section 13.1 adequately captures the potential non-human receptors. Potential heritage and ecological receptors of importance may have been omitted – see comments on Chapters 22 and 23.
13-39	13.6.28	The Councils consider that the loss of a Grade 2 Listed Building is a major incident in heritage terms. The National Planning Policy Framework (2019), paragraph 194 advises that ‘substantial harm to or loss of grade II listed buildings, or grade II registered parks or gardens, should be exceptional.’ The site and local area have Grade 2 Listed Buildings that could be affected.
13-41 to 13-48	Table 13.7	The Councils consider that this table lacks detail and in general needs to shift descriptors of significance to the right. More attention is required to adequately define categories. It is difficult to understand why a ‘Substantial number of people requiring medical attention’ would be ‘not significant’ or indeed that in regard to cultural heritage ‘Damage sufficient for designation of importance to be withdrawn’ would only be ‘severe’ rather than ‘very large’. Also, in terms of where percentages of area or designation is concerned this is a poor indicator of harm as a small loss in area may cause wider severe harm.
13-50	Table 13.8	The temporal impacts on heritage assets are inadequately defined. Anything that removes the designated status of the asset is likely to be so severe that permanent harm has been caused.
13-53	13.7	The submission does not contain enough clarity on the proposals to assess potential radioactive accidents. The submission does not propose to scope out these potential effects (13.15).

## 2.9. SOILS, GEOLOGY AND LAND USE

This chapter sets out the approach for determining the scope, and content of the assessment for soils, geology and land use.

With regards to contamination the Councils are generally satisfied with the approach proposed and the SMP to develop the baseline. Further advice will be received from the Environment Agency and Marine Management Organisation.

Natural England will be the specialist advisor in terms of an appropriate methodology to assess impacts on agricultural land quality.

The geology of the area also contributes to the heritage and ecological value of the locality. These interrelationships should be highlighted explicitly in the Environmental Statement.

The proposed development would require a very large volume of aggregates and could generate a large quantity of waste. The Councils are therefore concerned that the submission does not

adequately address these issues. Furthermore, no reference has been made to the Essex Minerals Local Plan (MLP) 2014 and Essex and Southend-on-Sea Waste Local Plan (WLP) 2017. These plans form part of the Development Plan within the proposed application area and are therefore material planning considerations. All proposals for mineral extraction within Essex to serve the development, and for the deposition of waste associated with the development should be assessed in light of these aforementioned Adopted Plans.

In general terms, this section does not address an important point that land is a finite resource and that the project should seek to make the best use of land, minimising land take and promoting sustainable development.

Specific responses to this chapter of the scoping submission are provided in the table below, with further commentary on minerals following the table.

Page	Ref.	Comment
14-3	Table 14.1	Table 14.1 omits reference to the Essex Minerals Local Plan (MLP) 2014, which alongside the Essex and Southend-on-Sea Waste Local Plan (WLP) 2017, forms the Development Plan covering the site of the proposed development in combination with the Maldon Local Plan and any relevant Neighbourhood Plan.
14-3	Table 14.1	Table 14.1 also omits any reference to sustainable mineral use as covered by the NPPF, as well as any reference to the National Planning Policy for Waste (NPPW). The NPPW requires that the handling of waste arising from the construction and operation of development maximises reuse/recovery opportunities, and minimises off-site disposal, recognising that such material should be viewed as a resource as far as is possible. It is recognised that the WLP may have limited relevance to these proposals, but it should be noted that Policy 13 covers the principles of land raising with waste.
14-3	Table 14.1	Table 14.1 should also include 'A Green Future: Our 25 Year Plan to Improve the Environment' (2018) HM Government.
14-28	14.5.14	Although not statutorily designated the river terrace deposits that mark the route of the former Medway River are of considerable geoarchaeological interest (see Section 22).
14-30	14.5.25 and 14.5.26	Please reference the source of the ALC mapping and the MAFF guidance for surveys. Without source referencing checks cannot be made for adequacy.
14-31	14.5.39,14.5.46, and 14.5.53.	Once Associated Development sites are known soil mapping should be informed by site surveys.
14-48	Table 14.14	The potential receptors in Table 14.14 are defined very widely and will need to be refined once the baseline and impact assessments are more developed.
14-51	Table 14.15	Of more relevance is the MLP, which contains policies regarding the sustainable use of minerals in construction, and mineral resource safeguarding. In respect of the latter, the recognition in Table 14.15 with regards to the potential of loss of access to sands and gravels (sterilisation of resources) is welcomed, as is the fact that this issue has not been scoped out by virtue of Table 14.16.

Page	Ref.	Comment
14-57	Table 14.16	Table 14.16 identifies potential effects that are proposed to be scoped out. The Councils request that the advice of the Environment Agency and Natural England is followed on these proposals and raise a general concern that substantial evidence has not been submitted in all cases to justify these details being scoped out. It is noted that geological designations are proposed to be scoped out but in paragraph 14.5.34 the submission advises that the notification process for LoGS was still underway.
14-59	14.8.1	The storage of excavated soils is mentioned briefly in the mitigation section. The PEIR/Environmental statement should assess impacts to soil and address the need for a Soil Management Plan (SMP) to establish how soil will be stripped, stored, handled and treated/ remediated. The SMP should include sufficient detail regarding the methods to be applied and to give confidence as to the likely efficacy of such measures.
15-19	Table 15.5	This table refers to a Zone of Influence for a borrow pit for minerals and states: <i>“Site location(s) yet to be determined. A Zoi will be defined to form the study area once location(s) are confirmed. Site boundaries and search areas still to be defined.”</i> It is therefore impossible to consider the implications of this proposal at this time.
General		This chapter is unclear on its proposals in relation to land within the estuary but within the study area.

## Minerals and Waste

Essex County Council (ECC) is the host Minerals and Waste Planning Authority in the two-tier administrative area of Essex. The [Essex Minerals Local Plan - Adopted July 2014](#) concerns the administrative area of Essex, and seeks to ensure a local supply of aggregates for the County is retained for as planned growth.

The [Essex and Southend on Sea Waste Local Plan - Adopted October 2017](#) concerns the administrative area of Essex and Southend on Sea only.

The proposed development at Bradwell-on-Sea lies within a Mineral Safeguarding Area (MSA) for sand and gravel and is therefore subject to Policy S8 of the Essex Minerals Local Plan 2014 (MLP). The MLP can be viewed on the County Council’s website via the following link:  
<https://www.essex.gov.uk/minerals-waste-planning-policy/minerals-local-plan>

ECC is also the Waste Disposal Authority (WDA) and therefore has a statutory obligation under the Environmental Protection Act 1990 to provide waste management facilities for residents of Essex. MDC is the Waste Collection Authority for the Maldon District.

The Councils would expect greater clarification and assessment with regards to the wider mineral and waste effects of the proposed development within the Environmental Statement.

## Minerals



Policy S8 states “... *Proposals which would unnecessarily sterilise mineral resources or conflict with the effective workings of permitted minerals development or Preferred Mineral site allocation shall be opposed.*”

Policy S8 of the MLP requires that a non-mineral proposal located within an MSA which exceeds defined thresholds must be supported by a Minerals Resource Assessment to establish the existence, or otherwise, of a mineral resource capable of having economic importance. This will ascertain whether there is an opportunity for the prior extraction of that mineral to avoid the sterilisation of the resource, as required by the National Planning Policy Framework (Paragraphs 203 & 204).

The MLP shows that the area of the proposed development that is located on land designated as an MSA for sand and gravel is approximately 207 hectares. This exceeds the 5ha threshold for sand and gravel as set out in Policy S8 of the Essex Minerals Local Plan (MLP). **Therefore, a Mineral Resource Assessment (MRA) would be required as part of the planning application.**

The scope and level of detail of an MRA will be influenced by the specific characteristics of the site’s location and its geology. However, several key requirements can be identified which are likely to satisfy the MPA that the viability and practicality of prior extraction has been suitably assessed in the MRA. For development of the magnitude proposed at Bradwell-on-Sea, it is expected that consideration is given in the MRA to the potential to use indigenous material as part of the construction of the facility, borrow pits, and whether indigenous mineral could be extracted and transported off site to serve another market.

The table below is a schedule of requirements for a minerals resource assessment:

MRA Section	Matters to Cover
<b>Site location, relevant boundaries, timescale for development</b>	Application area in relation to MSA/MCA  Description of development including layout & phasing  Timescale for development  Whether there is any previous relevant site history – this could include previous consideration of site or adjacent land in preparation of Minerals Local Plan, any previous mineral assessments and market appraisals, boreholes, site investigations, technical reports and applications to the Minerals Planning Authority for extraction.
<b>Nature of the existing mineral resource</b>	Type of mineral; Existing mineral exploration data (e.g. previous boreholes in area);  Results of further intrusive investigation if undertaken; Extent of mineral – depth & variability; Overburden – depth & variability, overburden: mineral ratio. To be expressed as both actual depths and ratio of overburden to deposit, as well as variation across the site; Mineral quality – including silt %/content and how processing may impact on quality. Consideration should give given to the extent to which the material available on site would meet the specifications for construction.

	<p>An assessment of the amount of material that would be sterilised (whole site area) and could be extracted (following application of any required buffer zones);</p> <p>Estimated economic/market value of resource affected across whole site and that which could be extracted.</p>
<p><b>Constraints impacting on the practicality of mineral extraction (distinct from those that would arise from the primary development)</b></p>	<p>Ecology designations;</p> <p>Landscape character;</p> <p>Heritage designations;</p> <p>Proximity to existing dwellings;</p> <p>Highways infrastructure;</p> <p>Proximal waterbodies;</p> <p>Hydrology;</p> <p>Land stability;</p> <p>Restoration requirements;</p> <p>Effect on viability of non-minerals development including through delays and changes to landform and character;</p> <p>Utilities present etc;</p> <p>Constraints should be assessed in light of the fact that construction of the non-minerals development would be taking place, e.g., landscape issues are to be presented in light of the final landscape likely to be permanent built development. It is held that mitigation methods employed as part of the construction of the non-minerals development may also facilitate prior extraction at that locality.</p>
<p><b>Potential opportunities for mineral extraction at location</b></p>	<p>Ability of site to incorporate temporary mineral processing plant, ;</p> <p>Proximity to existing mineral sites or processing plant;</p> <p>Context of site and mineral within wider mineral resource area;</p> <p>Proximity to viable transport links for mineral haulage;</p> <p>The potential for indigenous material to be used in the construction of the proposed development, thereby reducing/removing the need for import;</p> <p>Potential benefits through mineral restoration e.g. land reclamation, landscape enhancement;</p> <p>Any opportunities for incidental extraction as part of the development of the site such as foundations, footings, landscaping, sustainable drainage systems;</p> <p>Evidence or otherwise of interested operators/local market demand.</p>
<p><b>Conclusion (as relevant to the findings)</b></p>	<p>Whether prior extraction is environmentally feasible;</p> <p>Whether the site has the potential to be worked for mineral in the future;</p> <p>Whether prior extraction is practical at the site in the context of the non-mineral development, taking into account the estimated value of the mineral, restoration and the overall viability of the development;</p> <p>How the MRA has informed the proposed non-mineral development;</p> <p>If prior extraction is not practical, the justification for sterilising the mineral;</p> <p>If prior extraction is practical, how this will be phased as part of, or preceding, the non-mineral development.</p>

Borehole logs do not have to be commissioned specifically for an MRA where they already exist, but they must be indicative of the site (as a whole) taken from within the application boundary and conform to industry standards.

To ensure that a comprehensive assessment is undertaken on a site, it is recommended that:

- a draft borehole location plan is agreed with the County Council as early as possible and preferably as part of pre-application;
- the borehole depths should be the full extent of the mineral to the bedrock;
- borehole analysis must note the depth of the water table; and
- a non-stratified sampling technique is applied. An initial spacing of approximately 100m-150m centre to centre should be considered, with additional locations if required to determine the extent of deposits on site.

The MRA should be prepared using the [Pan-European Standard for Reporting of Exploration Results, Mineral Resources and Reserves \(PERC\) Standard](#), which was revised and published on 23 May 2013.

The relationship between the proposed development site and the Mineral Safeguarding Area was referenced within the Stage One Consultation response and is not repeated here.

### **The Sourcing of Construction Materials**

Notwithstanding the amount of indigenous material that may be able to support construction, given the mineral take of the Bradwell B development, ECC requests that a mineral supply audit is carried out in relation to the proposal. Such a supply audit should consider the approximate volume of mineral required to facilitate the development on a phased basis (i.e. linked to the phasing as set out in Paragraph 3.7.3 of the Bradwell B – Stage One Consultation Document) and disaggregated from the approximated 6mt of ‘construction materials’ required over the project as stated in Paragraph 4.6.1 of the same document), the broad area(s) where aggregate will likely be supplied from, implications for this demand on local aggregate supply and the impact on any proximal infrastructure that may potentially arise as a consequence of the need to import that aggregate, including to other NSIP projects (i.e. Lower Thames Crossing, J28 M25, future works to the A12 and the A120) together with an accelerated house building programme in Essex with 186,000 houses to be provided, to consider the potential cumulative impacts and opportunities.

It is noted that the submitted Scoping Report makes reference to the provision of a borrow pit (para 3.4.30) to support the development site but its location is not defined and hence no comment can be made as to its appropriateness against existing MLP policies.

### **Waste**

ECC supports the application of the Waste Hierarchy and the use of Sustainable Management of the excavated materials and waste arisings, including recycling and potential re-use/after-uses. ECC would expect this information to be included within a Materials Balance.

It appears that the matter of Waste Management during construction and operation has not been progressed in any meaningful detail at this stage of the process and largely leaves the method of waste disposal undecided as potentially on-site, by road, rail and or water transport. There could be significant local impact depending on the mode taken in respect of landform, on transport and if disposal sites are in Essex and /or Essex network used for transport of waste.

ECC would expect the scope of the waste study area to include a wide area. Further clarification is required on the use and interpretation of ECC on Essex and Southend on Sea Waste Local Plan capacity data.

The submitted Scoping Report makes no reference to this important topic which would be a material consideration, save for comment on the development potentially being the need for “borrow pits” (para 3.4.30) to serve the development, and the potential backfilling of the same, which cannot be assessed as they are lacking in detail at this time.

### **Waste Management**

In addition, a significant amount of accommodation is proposed on or around the proposal site which will have an impact on waste collection services and management.

Minimising waste is a key environmental objective of sustainable development, as highlighted in the National Planning Policy Framework. The National Planning Policy for Waste is also clear that preparing for recycling and recycling materials are important elements of the waste hierarchy to make the most efficient use of resources, minimise waste disposal and deliver sustainable communities.

ECC as the Waste Disposal Authority (WDA) has a statutory obligation under the Environmental Protection Act 1990 to provide facilities for residents of Essex to dispose of their household waste. This obligation is discharged through the provision of a network of Recycling Centres for Household Waste (RCHW) in Essex. The primary Essex facility servicing the application site is the Maldon RCHW. It is acknowledged that households are not proposed within the application proposals, however living accommodation more akin to providing flats or workers are.

## **2.9 WATER ENVIRONMENT**

The water environment submission concerns surface water and groundwater conditions and is being addressed separately from the Flood Risk and Drainage chapter of the submission. It is also separate from any assessment required under the Water Framework Directive.

The Environment Agency is the leading specialist agency on the water environment and the Councils trust that PINS will be guided by the Environment Agency’s expert advice received on the submitted scoping application.

Specific responses to this chapter of the scoping submission are provided in the table below:

Page	Ref.	Comment
15-13	Table 15.3	Further to the MDC officer comments at the EIA Scoping Workshop in June 2020 the Council remains concerned that the connections between the water environment, ecology and the historic environment are not explicitly recognised within this chapter. The submission references designated ecological sites and the ‘water dependency of ecosystems’ but this list of ecological receptors is not comprehensive.
15-67	15.5.119	Maldon District Council is currently producing a Bradwell B Development Plan Document and will in due course review the current adopted Local Plan, and so it is premature to predict the future baseline for the project.
15-70	15.6.2	The Councils note that the submission does not seek to establish appropriate assessment methodologies at this stage. This paragraph

Page	Ref.	Comment
		advises that ‘Detailed methodologies for the assessment of the potential effects have yet to be defined’ and ‘assessment methodologies will be scoped in detail as further baseline data and project design information become available. Relevant consultees will be engaged to ensure confirmation and agreement on assessment methodology and scope throughout the evolving project design process.’ The Councils will welcome engagement in this process.
15-91	15.8.2	The Councils support the inclusion of Sustainable Drainage Systems (SuDS), particularly the role of SuDS in filtering pollutants and sediments from reaching water environments. Full and thorough consideration of the full range of SuDS typologies (including wetland habitats, rainwater harvesting, green roofs, bioretention areas, etc) should form part of the scope of the EIA to maximise environmental benefits.

## 2.10. FLOOD RISK AND DRAINAGE

Parts of the main development site, including the identified area for the Power station permanent development are within flood zones 2 and 3, as well at risk of surface water flooding. Paragraph 3.6.8 of NPS EN-6 states ‘Where possible, safety and operational critical installations should be sited in the areas of the site at least risk of flooding’. In planning for development, it is essential to apply the precautionary principle regarding possible long-term impacts from climate change including sea level rise and increased storminess.

It is a requirement of the EIA process that the developer considers reasonable alternatives which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the development on the environment<sup>1</sup>

The Councils expect that the advice of the Environment Agency will be taken with regards to the proposed scope and methodology for predicting the risks of flooding applicable to the proposed development.

Managing surface water run-off via Sustainable Drainage Systems (SuDS) is of key importance in this location which is of great ecological importance including internationally protected wetland and marine habitat sites (Ramsar, SPA, SAC) and a Marine Conservation Zone. The multi-functional benefits and mitigation value of SuDS should be maximised for wider benefits to the community, including in terms of amenity, landscape visual impact, recreational opportunities and air and water quality.

As the Lead Local Flood Authority (LLFA) Essex County Council (ECC) provides advice on SuDS schemes for major developments. ECC have been statutory consultee on surface water since the 15th April 2015.

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<sup>1</sup> The Town and Country Planning (environmental Impact Assessment) regulations 2017 – 18(3)(d)

In providing advice as the LLFA on SuDS schemes ECC looks to ensure sustainable drainage proposals comply with the required standards as set out in the following documents:

- Non-statutory technical standards for sustainable drainage systems (Defra 2015);
- Essex County Council’s adopted Sustainable Drainage Systems Design Guide 2020;
- The CIRIA SuDS Manual (C753);
- BS8582 Code of practice for surface water management for development sites.

Discussions have taken place between the LLFA and BRB prior to this scoping submission, but such discussions will need to continue to identify, for example, baseline surveys of primary watercourses and an on-going program of monitoring and recording the same as may be necessary. It is necessary for the proposal to plan for, provide and deliver multiple SuDS benefits. These benefits include Amenity value, Biodiversity Net Gain and Habitat Creation, Water Treatment (filtering out sediment and pollutants from run-off), and Carbon Sequestration which an appropriate comprehensive SuDS and Landscaping strategy (Inc. Green and Blue Infrastructure, Tree Planting etc.) which together could provide a lasting positive legacy from surface water management.

In addition, much of the proposed associated development, for example the park and ride, freight management facility, and proposed road alignment changes are at their infancy and require fuller engagement with the LLFA.

The Councils are concerned that this chapter fails to adequately appreciate the inter-connection between flood risk and drainage and other EIA topics, especially ecology and cultural landscape, and this is reflected in the inadequate methodology proposed to assess significant impacts.

Specific responses to this chapter of the scoping submission are provided in the table below:

Page	Ref.	Comment
3-4	3.3.5	Section 3.3.5. Describes various watercourses and Borrow Dyke traversing the Main development site. For any works that might obstruct or restrict the flow of water in Ordinary Watercourses, consideration should be given to the LLFA’s Section 23 Land Drainage Act (1991) consenting requirements and culverting policy. Culverting of open watercourses should be minimised, and reference should be made to CIRIA (C786) Culvert, Screen and Outfall Manual for guidance on installation of any structures, where this is required.
3-4	3.3.5	Section 3.3.5. describes the outfall to the Blackwater estuary via the Weymarks Sluice. Reference is also made in Table 16.3 Technical Engagement about the need for assessing the probability of a joint Coastal, Fluvial or Pluvial event on the existing infrastructure. We would also highlight the need to assess the drainage network for any tide locking scenario at the outfall and potential implications this might have on the main development. It is understood that the main development will discharge surface water run-off directly to Blackwater estuary which can be permitted at an un-restricted rate, however in a tide locking scenario storage will be required until such point as the outfall can freely discharge so this will need to be quantified in accordance to ECC’s SuDS requirements.
3-19	3.6	Section 3.6 Outlines off-site Associated Development, including Highway Improvements, Park and Ride Facilities and Freight Management Facilities.

Page	Ref.	Comment
		The main development is located some way away from significant settlement areas, however some aspects of the off-site development do coincide with our Tier 1 Surface Water Management Plan (SWMP) study areas, these being Chelmsford and Maldon. South Woodham Ferrers, where both sites for Freight Management and Park and Ride facilities are being considered is also in a Tier 2 SWMP area and whilst there are no Critical Drainage Areas (CDA's) here, there is a history of flood risk and the locations should be considered carefully. It is acknowledged in the scoping study that flood risk will be properly assessed when the sites are known, and the methodology associated with this seemed reasonable, however no reference was made of the ECC SWMP Studies and associated CDA's (2018-20), so these will need to be considered in the assessment methodology.
3-19	3.6.4	Sections 3.6.4 – 6 make reference to Worker Accommodation. Whilst this is described as temporary accommodation, given that the development is to take place over a lengthy time period (twelve years), we would expect any such development to adopt Sustainable Drainage principles. The SuDS features should be integrated into an appropriate landscaping strategy for the development so staff can realise the additional amenity and welfare benefits these offers.
13-23	Table 13.3	See comments on Section 3.3.5 above.
16-3	Table 16.1	It is noted that in table 16.1 of the submission no reference is made to the ECC Adopted Sustainable Drainage System Design Guide 2020, the submitted Scoping Opinion should reference this and not the 2006 Guide as set out in the Scoping Report and which is out of date.
16-4	Table 16.1	Summary of the NPPF. This should also reference the following: <ul style="list-style-type: none"> <li>• Within a site, the most vulnerable development should be located in areas of lowest flood risk, unless there are overriding reasons to prefer a different location.</li> <li>• Development should incorporate sustainable drainage systems, unless there is clear evidence that this would be inappropriate. These should incorporate sustainable systems providing multifunctional benefits where possible.</li> </ul>
16-6	Table 16.1	Maldon District Local Plan Policy D4 is not relevant to this chapter.  It should be noted that Policy D5 also promotes SuDS and making best use of appropriate green infrastructure as part of the flood mitigation measures. Policy D5 stipulates that development should be in compliance with and contribute positively towards delivering the aims and objectives of other relevant strategies including the Maldon and Heybridge Surface Water Management Plan, the Shoreline Management Plan and the Catchment Flood Management Plans.
16-6	Table 16.1	The Strategic Flood Risk Assessment also notes that SuDS techniques should seek to reduce pollution and provide landscape and wildlife benefits. These include source control methods to control runoff at source, e.g. green roofs, rainwater harvesting and recycling. It notes that Green

Page	Ref.	Comment
		roofs can form a valuable component of SuDS and provide a range of additional environmental benefits including provision of wildlife habitats and improvements to air and water quality.
16-7	Table 16.13	Table 16.13 provides a summary of embedded mitigation. The terminology refers to 'all receptors at risk of flooding ', which is helpful as this broadly covers all elements of the proposed development, including the main site and off-site associated development (Inc. Highway Improvements, Park and Ride Facilities and Freight Management Facilities). Particular reference is made to run-off from proposed impermeable surfaces being passed through suitable SuDS, however no reference is made to the provision of Water Quality mitigation in line with the Chapter 26 of the CIRIA SuDS Manual (C753), Simple Indices approach, so this will need to be referenced in a similar vein to flood risk mitigation. Opportunities should also be sought for any proposed development to deliver multiple SuDS benefits, including Amenity value, Biodiversity Net Gain and Carbon Sequestration which an appropriate comprehensive SuDS and Landscaping strategy (including Green Infrastructure, Tree Planting etc.) may provide.
16-10	Table 16.2	It should be noted that the PPG also includes emphasis on sustainable drainage systems and their benefits; as well as making development safe from flood risk – including flood resilient and resistant construction.
16-10	Table 16.2	Table 16.2 refers to Relevant technical guidance. Reference is made to the SuDS Design Guide (2016), however this has recently been updated to the Essex SuDS Design Guide (2020) which outlines the LLFA's most current SuDS requirements for new development. For works to Watercourses the Essex Culverting Policy and CIRIA (C786) Culvert, Screen and Outfall Manual should also be referred too. Sewers for Adoption 08th Edition has also been superseded by the Ofwat Adoption Code, Sewerage Sector Guidance so reference should be made to this suit of documents, as appropriate
16-16	Table 16.3	The summary of MDC feedback from early engagement does not fully report the Councils concern that flood risk mitigation arising from the proposed development could have significant impacts on many other areas, including ecology, landscape, heritage and recreation. The submission continues to downplay these inter-connections.
16-29	Table 16.7	Table 16.7 refers to Sources of Data. The national surface water modelling dataset (Flood maps for Planning) is sufficient for this, however ECC have improved modelling for our SWMP Study areas (i.e. Chelmsford and Maldon) recently updated in 2020, so reference could also be made to this dataset in the table.
16.43	Table 16.8	The assessment methodology does not adequately reference ecological, landscape or heritage assets in terms of sensitivity. These are important features of the site and area and demand further consideration in the proposed methodology.
16.44	Table 16.9	The assessment methodology does not adequately reference ecological, landscape or heritage assets with regard to magnitude of change. These are important features of the site and area and demand further consideration in the proposed methodology.



Page	Ref.	Comment
16-47	Table 16.11	Whilst the submission very broadly identifies ecology and cultural landscape as receptors that may be subject to likely significant effects, Table 16.11 does not adequately describe the receptors or impact pathways. These are important features of the site and area and demand further consideration in the proposed methodology.
16-51	16.8.7	The submission should acknowledge that the mitigation measures to address the risk of flooding, including the raised platform and new sea defences to be included in the proposed development, are in themselves likely to result in significant effects.
16-52	Table 16.12	Table 16.12 does not adequately describe the ecological and cultural landscape receptors or impact pathways. These are important features of the site and area and demand further consideration in the proposed methodology.
16.5.3	16.8.9	The Councils are reassured that no effects have been scoped out of the Environmental Assessment.

## 2.11. COASTAL GEOMORPHOLOGY AND HYDRODYNAMICS

The Environment Agency is expected to provide expert advice to PINS in relation to the appropriate methodology for predicting likely impacts of the proposed development on coastal geomorphology.

The Councils have not been engaged directly by the applicant on coastal geomorphology and hydrodynamics, as confirmed by the summary of engagement carried out within the submission. We are potentially concerned should there be any negative effects associated with the proposed development that impacts ecological or historic assets in addition to flood defences. It is noted that coastal geomorphology was considered within the Essex and South Suffolk Shoreline Management Plan which gave some consideration to contemporary geomorphological processes along the Essex coast. In particular, the Management Plan highlighted concerns over potential loss of saltmarsh and mudflat which acts as a natural flood and erosion defence, as well as providing internationally important habitat.

The Councils would ask that the proposed assessment methodology has regard to all receptors, including local residents, users of the coast, heritage assets in addition to ecological receptors. Robust detailed baseline studies, once completed, would assist in the assessment of potential effects.

The Councils have considered the adequacy of Table 17.14 in assigning or capturing the value of ecological receptors. Please note that CWS is not a term used in Essex and should be amended to Local Wildlife Sites (LoWS) and Local Geological Sites (LoGS) and are also added to this table. To avoid confusion, we recommend that the reference to statutory designated Local Nature Reserves is re-assigned to Medium value in this table as these are often also designated as SSSI, LoGS or LoWS.

The Councils also note the concerns of Historic England regarding the implications of changes to coastal processes in Table 17.4 but are concerned that Heritage is not mentioned again in this chapter. It needs to be included. It is also requested that the Bathymetry surveys mentioned in Table 17.6 are shared with Historic England and MDC heritage advisors.

We also ask that any assessment of effects, in addition to considering any mitigation of negative effects, also considers the potential for positive effects on coastal change.

The Councils note that only the Marine works effects on offshore sandbanks are being proposed to be scoped out of the assessment. The Environment Agency will advise on the appropriateness of this proposal.

## 2.12. MARINE WATER QUALITY AND SEDIMENTS

The Environment Agency, Natural England and the Marine Management Organisation are expert advisors on the marine environment and will provide specialist technical advice to PINS on the appropriate scope and assessment methodology on potential direct effects of the proposed development on marine water quality and sediments.

The Councils are concerned about potential adverse effects on marine ecology, together with any indirect effects, including for example potential adverse impacts on native oysters and related socio-economic consequences. In addition to construction impacts the Councils note the potential liquid discharges associated with the operation of the Bradwell B power station through the hybrid cooling water purge (3.4.47).

The Councils are reassured that the submission confirms that 'there are no effects that are to be scoped out of the assessment at this stage' (paragraph 18.7.37). We would expect that any significant effects arising from the proposed Associate Development, including any accommodation proposals near to the main site, are considered together and not separated between related topics.

Should marine water quality remain a separate chapter within the Environmental Statement then greater cross referencing or overlapping between chapters is recommended, for example, to Chapter 16 Flood Risk and Drainage given the potential for drainage and run-off to influence adjacent marine water quality, as well as the potential of Sustainable Drainage Systems to mitigate such effects

## 2.13. NAVIGATION

The district of Maldon has seventy miles of coastline and the tidal estuaries are important to the area for its special character, landscape, heritage, culture, commercial and recreational value. The potential impact of navigation on this resource is therefore of importance to the Council.

No direct engagement has been had between the Councils and applicant with regard to its proposals for marine navigation. We do fully appreciate however that marine transport is critical to the delivery of the proposed development and that marine could be the most sustainable mode of transport for construction goods and materials during the construction phase of the project.

We are concerned that the submission does not confirm that there have been discussions held with The Maldon Harbour Improvement Commissioners with regards to the proposals and their potential effects. Table 19.3 should also include Harwich Haven Authority and discussions also held with both the Harwich Haven Authority and the Port of Mistley Port as neighbouring harbour authorities.

It is not clear at this stage that the proposed study area would be adequate to consider potential navigational effects, or whether the proposed assessment methodology is appropriate. Our view is

that the assessment methodology is too narrow, focusing mainly on vessel collisions rather than the wider potential for environmental impacts.

Tables 19.12 and 19.13 should include the potential for damaging the Scheduled fish-traps in the estuary and the prehistoric land-surfaces and other structures in the inter-tidal zone. In Table 19.8 a mitigation plan needs to be put in place in order to avoid inadvertent damage to marine and inter-tidal heritage assets which also need to be assessed against the geomorphological processes (Chapter 17) to ensure that they do not cause additional damage or change elsewhere.

The planning body for the marine environment is the Marine Management Organisation and we expect that PINS will take the advice of this specialist organisation concerning the adequacy of the submission in relation to marine navigation.

The Councils are reassured that nothing has been scoped out of the assessment in relation to this chapter.

#### 2.14. LANDSCAPE AND VISUAL AMENITY

It is of great concern that the Councils' landscape advice has been ignored and there is no evidence that the Councils' comments provided at both the Stage One Consultation and the Cultural Landscape scoping workshop in June 2020 have been addressed. Of major concern is the apparent lack of a holistic assessment of this sensitive historic landscape against which to assess likely significant impacts, design options or potential interventions.

The Councils are also concerned that the proposed methodology does not adequately address the baseline assessment and assessment of likely significant impacts. The landscape is both extremely complex and highly sensitive to change. It is a landscape where the marine, inter-tidal and terrestrial elements have been interchangeable over the millennia, and that owes its individual character to the interplay between the historic and natural environment. This needs to be reflected in the assessment methodology and matrix, which currently lacks detail and should be on a 5-point scale.

In addition, there have been no discussions forthcoming on the design and layout of the main site at this time and the way design initiatives could be incorporated to seek to mitigate impact. The Environmental Statement should ensure that these are adequately described and that relevant design parameters, and alternatives, are appropriately secured in any Development Consent Order. Appropriate assessment techniques should be used to qualify, promote, and refine the design options taken forward. The Councils promoted the use of external design reviews in its response to the applicant's Stage One Consultation to help embed good design into the project from an early stage and would like to see this measure included in the applicant's methodology.

The narrative of the chapter, and the links with the other chapters within this Scoping report are inadequate and will need to be improved in the Environmental Statement. As a minimum, we recommend the delivery of an integrated and cross-referenced LVIA and Historic Environment chapters as part of the Environmental Statement that demonstrates a holistic approach.

Specific responses to this chapter of the scoping submission are provided in the table below:

Page	Ref.	Comment
20-11	20.16	On 30/09/2020 the Landscape Institute released the "Infrastructure: Technical Guidance Note 04/2020". Although brief, we would ask that this is also included in the guidance references.

Page	Ref.	Comment
20-14	Table 20.3	This technical engagement table does not give an accurate representation of what was discussed at the Cultural Landscape workshop in June 2020. Many Council comments regarding the assessment methodology and its accuracy were raised and yet there is no consideration given to these in this document, nor have they been applied to methodology proposed. Reference to these methodology concerns can be found in the comments below.
20-16	Table 20.4	As part of the Stage One consultation it was raised that a colour study would be necessary. However, the table states that "Colour Studies will be considered as a tool to inform the next stage of design development." As we have previously stated, colour is important and can be used to support landscape and visual mitigation. As we will be expecting Accurate Visual Representations (AVR) level 3 photomontages to be provided, colour will form part of the visual representation. Therefore, we would insist a colour study is carried out as part of this scope of works to ensure it is considered as part of the impact assessment and mitigation strategy. Reference documents that can help inform the assessment include; 'Guidance on the selection and use of colour in development' produced by Waygood Colour for Dedham Vale AONB (July 2018), and the Environmental Colour Assessment Technical Information Note 04/2018 (Landscape Institute, 2019).
20-19	Table 20.5	The Residential visual amenity assessment (RVAA) study area rationale states "A detailed study area, extending out to approximately 2km from the main development site". The Landscape Institute Technical Guidance Note on Residential Visual Amenity Assessment indicates that a preliminary study area of 1.5-2km radius should be appropriate "to begin to identify properties for inclusion in the RVAA, when considering relatively conspicuous structures." However, this guidance does not take into consideration views across water bodies, which in this case would allow open views of the proposal from much longer distances, such as residents on Coast Road, Mersea. We would therefore insist the study area is extend and these viewpoints are included within the RVAA study area.
20-20	Table 20.6	A study area for the off-site associated development has been set for: 'Project-provided accommodation, off-site highway works, rail infrastructure, park and ride facilities, freight management facilities and power station facilities'. However, no baseline mapping (such as a preliminary ZTV and GI asset audit) have been provided. Therefore, we cannot yet make judgement as to whether the proposed development locations are suitable and in turn whether the study areas are appropriate. Before proceeding, further baseline information needs to be provided to support the proposals.
20-20	Table 20.7	Should include the National Heritage List for England for designated heritage assets as one of the desk-based sources
20-23	20.5	Although a 'immediate landscape context' outline narrative is provided, there is minimal reference to the seascape and historic landscape character. Given the scope of works, cross-discipline thinking and the

Page	Ref.	Comment
		zone of marine infrastructure, we would expect further details to be provided to inform an Environmental Statement.
20-23	20.5	To help inform the landscape baseline, the Councils would expect a detailed landscape audit to be provided. This should include details of existing landscape features present across the main development site, associated off-site development corridors and principal views of the station afforded from both the Dengie peninsula and from the northern side of the Blackwater. Assets should include but not be limited to; existing trees, hedgerows, woodlands/copses and grassland habitats. This was previously recommended as part of consultation with the Councils but is yet to be provided or commented on.
20-24	20.5.4	The Roman Saxon Shore fort on this site is Scheduled and has its own setting that should be assessed in its own right as well as the setting of the Listed Chapel
20-30	20.5.32	St Peter's Chapel and Bradwell Saxon Shore Fort are a visitor attraction and should be included in this group as a recreational visual receptor as well as a heritage asset
20-31	20.5.35	Off-site Power Station Facilities - The landscape and visual baseline data of this landscape should be assessed <u>before</u> sites are chosen, as the results should inform the decisions, not the other way around.
20-31	20.5.36	Off-site Associated Development: project-provided accommodation - The landscape and visual baseline data of this landscape should be assessed <u>before</u> sites are chosen, as the results should inform the decisions, not the other way around.
20-31	20.5.37	Off-site AD Highways improvements: The landscape and visual baseline data needs to take into account the historic elements of this multi-period and highly sensitive landscape.
20-37	20.5.61	Off-site associated development – accommodation: The landscape and visual baseline data of this historic landscape should be assessed <u>before</u> sites are chosen, as the results should inform the decisions, not the other way around.
20-37	20.5.62	Off-site AD, Park and Ride sites: The landscape and visual baseline data needs to take into account the historic elements of this multi-period and highly sensitive landscape
20-41	20.5.82	Off-site AD – Freight management: The landscape and visual baseline data needs to take into account the historic elements of this multi-period and highly sensitive landscape
20-49	Table 20.10	The technical engagement table (Table 20.3) refers to this table stating it provides the “current proposed list of viewpoints...and where agreement is yet to be reached”. However, Table 20.10 does not refer to any of the viewpoints previously recommend by the Councils in consultation, nor does it justify where these recommendations have been disregarded. Therefore, we would expect these additional recommended viewpoints to be included in all future documents and discussions.
20-49	Table 20.10 /	The Tollesbury viewpoint (VP10) is representative solely of the marina. An additional viewpoint should also be included on Public Right of Way

Page	Ref.	Comment
	Figure 20.1	(PRoW) 263_10/Mell Rd/Wycke Lane to account for the village as a visual receptor.
20-49	Table 20.10 / Figure 20.1	An additional viewpoint should be included along the PRoW 241_15 / Proposed England Coast Path, closest to the proposed main site.
20-49	Table 20.10 / Figure 20.1	Additional viewpoints should be included at intervals along PRoW 263 to account for the Blackwater Estuary Walking Route as a visual receptor. Potential locations include Goldhanger Creek, Mill Farm Marshes and Tollesbury Wick Marshes. At least one viewpoint should include a photomontage at AVR level 3.
20-49	Table 20.10 / Figure 20.1	There are PRoWs south of Bradwell on sea and the Dengie Marshes that are unaccounted for. These include but are not limited to; PROW 262_17, PROW 244_8 and PROW 242_23. We would expect these to be included in the LVIA to ensure all receptors have been reviewed.
20-49	Table 20.10	There are also potentially other viewpoints of community value that may only arise from further community consultation. The list should not therefore be seen as being exhaustive at this stage.
20-56	20.6.4	Under other specialist assessments include: 1) the column of steam/smoke in the ZTVs and Visualisations 2) the national Grid power pylons that will be needed for this scheme
20-58	20.6.6	Reference is made to how the LVIA will input into the design process, but only from a mitigation measures perspective. We would expect the LVIA to be used as a design tool to inform location, orientation, composition, layout and height of the proposals, especially given the importance of scale and mass within this landscape.
20-58	20.6.8	The landscape baseline is discussed in detail earlier on in the document, with reference to the national, regional and local Landscape Character Areas (LCA) and their key characteristics, as well as the immediate landscape in and surrounding the main site. Unfortunately, when considering how these are going to be effect in the 'Landscape, seascape and townscape character considerations' section there are no details in the submission as to the landscape receptors that have been chosen to be assessed. The Councils assume that all LCAs within the study area will be assessed but we would also expect to see an explicit assessment of the immediate landscape and the key characteristics. As well as reference to designations such as the National Nature Reserve and Registered Common Land. All proposed landscape and seascape receptors should be outlined in the methodology and an assurance given that these will be agreed with key stakeholders prior to the assessment being undertaken.
20-63	20.6.34	This paragraph refers to susceptibility and its definition. It currently states that susceptibility is the 'ability of a landscape or visual receptor to accommodate change'. However, every assessment is unique because of the key characteristics specific to the landscape being scrutinised, and the details associated with the specified change(s). Therefore, the definition should read as follows: 'ability of a <u>defined</u> landscape or visual

Page	Ref.	Comment
		<p>receptor to accommodate change <u>arising from the proposed development</u>.</p> <p>The Councils would also wish to continue to insist that a five-point scale is used, as recommended in the 'An approach to landscape sensitivity assessment – to inform spatial planning and land management.' (Natural England, 2019) guidance document instead of the 3-point scale highlighted in Table 20.12.</p>
20-64	Table 20.13	<p>The methodology currently refers to Landscape Value purely being judged on whether it is of national, local and community value/importance. However, non-designated areas can also be valued for the purposes of the National Planning Policy Framework (NPPF), Paragraph 170. Many areas of countryside are understandably valued by local residents, but to be considered 'valued' in the context of NPPF, there needs to be something 'special' or out of the ordinary that can be defined. The Bradwell landscape in particular has scenic qualities and conservation interest, which give the landscape great importance, not only on a local level, but regionally. For this reason, we would advise a 5-point scale is used (Low, Medium Low, Medium, Medium High, High) and the whole range of factors identified in the Guidelines for Landscape and Visual Impact Assessment Third Edition (GLVIA3) (Landscape Institute and Institute of Environmental Management and Assessment) are referred to in the description boxes. These factors (including; landscape quality/condition, recreation value, perceptual aspects, rarity, associations and scenic quality) have been referred to in Para 20.6.21 but are absent in the Landscape Value section (Para 20.6.39 – 20.6.41).</p>
20-65	Table 20.14	<p>Based on the comments raised on Susceptibility and Value, we would advise that the 'Assessment of sensitivity of receptors for landscape and visual assessments' table is reviewed to accommodate a 5-point scale, as previously recommended in the consultation with the Councils. Although not referred to in the GLVIA3, this approach is recommended in the 'An approach to landscape sensitivity assessment – to inform spatial planning and land management.' (Natural England, 2019) guidance document and would help support a robust and useful assessment.</p>
20-66	Table 20.15	<p>The 'Scale of Effect' table states that the degree of change must be large, medium, small or negligible. This scale doesn't allow for accuracy above 'medium', which given the nature of the development is important. In contrast, there are 3 options below (Medium, Small, Negligible). The Councils ask that an additional stage is added (Medium-Large or similar) to ensure equal stages are available throughout the scale to support a robust assessment.</p>

Page	Ref.	Comment
20-72	20.6.66	The Residential visual amenity assessment (RVAA) study area rationale (Table 20.5) states “A detailed study area, extending out to approximately 2km from the main development site”. Again, the Landscape Institute Technical Guidance Note on Residential Visual Amenity Assessment indicates that a preliminary study area of 1.5-2km radius should be appropriate “to begin to identify properties for inclusion in the RVAA, when considering relatively conspicuous structures.” However, this guidance does not take into consideration views across water bodies, which in this case would allow open views of the proposal from much longer distances, such as residents on Coast Road, Mersea. We would therefore insist the study area is extend and these viewpoints are included within the RVAA study area.
20-73	20.6.73	Night time impacts should also be supported by technical assessments considering impacts against baseline assessments.
20-73	20.6.78	As recommended above for the LVIA value criteria, the value of the visual receptors at night should align with a Low- High 5-point scale rather than a the proposed National – Community scale.
20-76	20.6.92	The use of photo wires and photomontages as visualisation representation is welcomed. However, the methodology for production of visualisations should also refer to (AVR classification Levels of Detail). To ensure sufficient details of the structures are available to give an accurate review of the proposal, the Councils ask that AVR Level 3 is used on all proposed photomontages.
20-99	20.8	This section relies on the input and outcomes of the emerging Design Principles. It is considered the Design Principles taken forward are not measurable, responsive or accountable. There holds a risk of abortive work where past principles are being pushed and the applicant is not responsive to feedback received in response to the Stage One Consultation.
20-99	20.8	Considerable thought is going to have to go into the potential mitigation in order to ensure that the mitigation does not do as much harm as the power-station. In particular, the Scheduled Fort and Monastery at Bradwell and Grade 1 St Peter’s Chapel is highly sensitive to changes within its setting. Visualisations will be required of any proposed mitigation measures.

## 2.15. RECREATION

The Councils are significantly concerned that this Chapter is too narrow in its focus for the recreation baseline. It only appears to consider to scope-in the development sites and its immediate surrounds (or those in the vicinity of associated development) and there is no recognition that a temporary workforce during construction may increase the visitor load on other green infrastructure that will need considering and mitigating. Paragraph 21.7.3 confirms that no recreation effects are to be screened out, when the omission of these other receptors suggests differently. Without their



inclusion, there is a real risk that this will undermine the forecasting of the scheme’s impact and would result in adverse effects that are not adequately mitigated.

In promoting sustainable travel options any initiatives to promote cycling, running and walking to encourage the workforce to both exercise, keep healthy, explore the existing rural area and use sustainable methods of transport whilst doing so should be explored. Opportunities to connect to, and improve and extend pre-existing and proposed cycle-routes and footpaths/bridleways (such as the Two River’s way cycle route, the proposed England Coast Path, Cockle Spit route, St Peters Way Long Distance Route and existing footpath/bridleways) should be sought, including signage and educational interpretation boards. This would benefit on-site workers, as well as mitigating their impact on existing routes. In addition, such improvements would be a potential legacy benefit of the Bradwell B project to the local community. Similarly, opportunities to enhance and extend the general green/blue infrastructure network with its inherent recreational benefits (both active and passive) should be proactively pursued.

Specific responses to this chapter of the scoping submission are provided in the table below:

Page	Ref.	Comment
21-1	21.1.1	This section references the ‘Tourism sector’ and refers back to Chapter 10, Socio-Economics. However, Chapter 10 is specifically concerned with reference to visitor accommodation and does not take into account the far reaching and diverse tourism offer Essex and the Maldon District bring to the locality – both in terms of financial benefits to the economy, but also in terms of recreation, health and well-being for residents and visitors to enjoy /utilise.
21-1	21.1.2	The description of recreational receptors is inadequate and underestimates the possible activities that should be covered by the recreation workstream. We consider that recreation resources embrace all those features in a setting that help define a person’s experience of a place such as the natural and cultural resources, special values attached to an area, in addition to facilities.
21-1	21.2	Please also refer to the Essex Green Infrastructure Strategy – <a href="https://www.placeservices.co.uk/media/325323/EGIS_MainStrategy_09062020-LR.pdf">https://www.placeservices.co.uk/media/325323/EGIS_MainStrategy_09062020-LR.pdf</a>
21-12	21.2.3	The submission confirms that aspects of recreation such as publicly available open spaces will also require consideration for the Project, but this is not adequately addressed in the proposed methodology as no account is explicitly taken of the indirect and cumulative impacts of the proposed development outside the development site on open space within the Maldon District and beyond.
21-12	Table 21.2	<p>We are concerned that the proposed use of smart data will have limitations and it will only give a snapshot of potential usage as it tends to be the more professional users who using tracking apps such as Strava or Map My Walk. We are disappointed public social media platforms and other online resources could not be used even in the baseline desktop study to ascertain the volume and usage of different routes. Generalised searches on Instagram, Facebook and Twitter already give an indication of visitors by the level of shares, impressions and engagement.</p> <p>Engagement suggestions within this table appear tokenistic and do not go far enough to establish existing activities and frequency. The Essex Bird Watching Society and Essex Wildlife Trust that manage the observatory near St Peter’s</p>

Page	Ref.	Comment
		Chapel are just two existing and well-supported and established organisations utilising the area near to the development site.
21-13	Table 21.3	In respects of project-provided accommodation, this section refers to the stakeholder feedback via the RSPB with respect to avoiding additional recreational disturbance during construction and thereafter. The explanation of how it is accounted for however, does not make it clear if the 'user counters' are to be used prior, during, or thereafter. Plus, there is no detail as to how they will be monitored and at what stage they be assessed for impact or continually reviewed?
21-15	21.4.1	The study area appears to be drawn too tightly to include only areas near the proposed development sites and visual receptors. The recreational impacts of the project could be widespread, including the Maldon District and beyond, especially during the operational stage and these should not be scoped out.
21-16	Table 21.5	<p>The Councils consider the data sources provided as part of the applicant's desk top study to be inadequate. An internet search of the area provides an indication of the reach and popularity of the area for different land and water based recreational pursuits.</p> <p>Event websites quoted are inadequate and focus only on sporting activities, rather than recreation as a whole. Other types of events in the direct locality include:</p> <ul style="list-style-type: none"> <li>• Mill End Open Gardens – open for charity as part of national open gardens <a href="https://www.opengardens.co.uk/open_gardens.php?id=2234">https://www.opengardens.co.uk/open_gardens.php?id=2234</a> Annual Bradwell Pilgrimage - 1550+ people attend during July <a href="http://bradwellpilgrimage.co.uk/">http://bradwellpilgrimage.co.uk/</a></li> <li>• The Othona community's regular events at their site <a href="https://www.othonaessex.org.uk/civicrm/event/info?id=1611">https://www.othonaessex.org.uk/civicrm/event/info?id=1611</a></li> </ul> <p>No mention of the MDC or ECC websites which promote the area to visitors and residents. District promotion includes recreational activities, community groups, attractions etc, as well as targeting visitors. <a href="http://www.visitmaldondistrict.co.uk">www.visitmaldondistrict.co.uk</a> <a href="http://www.visitessex.com">www.visitessex.com</a></p>
21-19	21.5.3	There are two long distance trails identified, but the Maldon District Saltmarsh Coast route is not mentioned and yet is identified elsewhere in the Scoping Report as going through the site.
21-18	21.5	This section should be expanded to include all green infrastructure assets within the 60-minute travel zone of workers who would be expected to locate to the area. Otherwise their full and cumulative impact will not be addressed.
21-20	21.5.7	This paragraph mentions the beach area as a location for recreation activities. However, what it does not outline is that this area is the only sandy beach in the Maldon District making it an attractive and family friendly destination for beach pursuits.
21-20	21.5.9	There is concern that the detail provided about St Peter's on the Wall for religious pilgrimage suggests it's a one-day event and mainly regional 'Essex (and beyond)'. This is not accurate and downplays the significance of the draw of the location. The site attracts international attention for its significance and

Page	Ref.	Comment
		links to Lindisfarne and Holy Island, the most important centres of early English Christianity. St Peter's on the Wall is also the oldest church still in use in the UK.
21-21	21.5.14	The councils are concerned that where the 'nature of effects have yet to be determined' there is little, or no detail provided as to how or when this will be provided.
21-22	21.5.20	We do not feel there is a good understanding of what is being promoted currently in the area, as the 'promoted routes' list provided is incomplete.
21-25	Table 21.6	We would suggest Easter Weekend is still a potential inclement time for weather, which would have an impact of visitor numbers and therefore could affect the reliability of data. There should be time series data used to establish a baseline of usage.
21-28	Table 21.8	The magnitude of change categories would require asset specific assessments, and impacts would partly depend on the asset's current level of use and capacity limits.
21-28	Table 21.9	<p>This table of receptors is missing a general category that could be impacted by the development during all stages of the development, which is users of open spaces within the Maldon District and beyond. The development would involve a large workforce during all stages of the project lifecycle that would have recreational effects that must be adequately scoped.</p> <p>We feel this Table should also be broadened in scope to include visitors accessing the river, rather than just a focus on regular river users. There are various public pontoons and holiday parks with slipways available to casual users, which would not be captured if adopting the limitation in the table. Likewise, commercial boat or Thames Sailing barge trips and the educational/vocational activities conducted at Bradwell Outdoors centre are currently not included in the baseline.</p> <p>We also feel an additional category for any other localised recreational activities in the area is needed as it demonstrates community focused activities such as open gardens, Bradwell Flower and Dog Festival, as examples., etc</p>
21-1	21.1.3	As identified earlier, we feel that recreational receptors have not been adequately defined. It currently focusses on sporting activities, or physical pursuits, rather than the full spectrum of recreational activities. Heritage is not cross-referenced in this section despite the heritage value attracting visitors to see St Peter's on the Wall Chapel and other local heritage assets and landscapes.
21-2	21.1.5	This desktop study is very limited in scope and reach. It only looks at the 'here and now' at that specific time – rather than looking to gather data on historic user experience. Use of public social media platforms, as well as shared pictures, experiences and place tags to see the engagement and to measure reach would give a much clearer picture.
Appendix 21.A	2.3.2	The Councils feel that more information needs to be provided. No detail is currently provided about the number of surveys needed to provide a 'good and reliable' sample.
Appendix 21.A	2.3.5	As previously mentioned, tracking apps are not inclusive and tend to be elite or active sports people who use them rather than the average dog walker. This may be a tool that aids discovery and understanding, but it should not be the only route for gathering usage data.

Page	Ref.	Comment
21-4	21.4	PROW diversions and extinguishments where necessary may be achieved by a variety of legal mechanisms including the powers within the DCO and/or Section 257 of the Town and Country Planning Act 1990 and not necessarily or exclusively the Highways Act s119 (and s118 for extinguishments). However, the councils would welcome the assessment of any proposed PROW changes by the applicant and Essex County Council being based upon the criteria applicable to Sections 119 and 118 respectively of the Highways Act 1980. Any, and all costs associated with PROW changes, whether temporary, or permanent, by whatever legal means, will need to be borne by BRB including any costs incurred by the Highway Authority in respect of those changes.
21-6 21-7	21.8 21.9	In reference to Paragraph 5.55 that it is likely that Footpath 15 Bradwell-on-Sea (the England Coastal Path (ECP)) will need to be closed during some construction phases: it is requested that consideration be given by the applicant to designing construction to allow for continued, but managed, access to this PROW to enable this vital resource to have uninterrupted use as we believe is intended for a comparable PROW at Sizewell C.
21-16	Table 21.5	Essex Legal Services Environmental Law and Property Team maintain the register of common land and village greens in Essex on behalf of ECC not Natural England (NE). Some Country Parks are also managed by ECC.
21-25	Table 21.6	In respects of the inspection of the Definitive Map of PROW: this may require the presence of a Definitive Map Team officer to aid interpretation. In addition, individual sites/PROW may require further investigation to ascertain if historic widths, pending claims etc. apply and the production of a Highway Status plan to represent this, which are chargeable services.
21-13	Table 21.3	We request that user groups and other stakeholders such as the Ramblers, Essex Bridleway Association, Open Spaces Society and Essex Local Access Forum (ELAF) are consulted directly by BRB concerning any proposed PROW and access changes once details are known.
21-24	21.5.36	ECC PROW team, not Natural England will be the primary managers of the England Coast Path (ECP) going forwards and must therefore be included in all discussions regarding the ECP to ensure the validity of those discussions and the accuracy of information exchanged.
21-21	21.5.13	Table 6.6 of Chapter 6: Transport confirms the precise nature of the interaction between the Strategic Route and PROW has yet to be determined. PROW & Records request direct consultation upon details of this route and its impact on PROW prior to the making of any orders. As with all other proposed PROW changes, we request the avoidance of the creation of dead-end PROW. Where proposed PROW diversion routes will terminate by a carriageway a Road Safety Audit must be undertaken by the competent authority at the expense of BRB and mitigation provided in line with the RSA's recommendations for any hazards identified. This would also need to apply to any PROW changes, which otherwise alter the nature of an existing connection e.g. by an increase in traffic/type of traffic resulting in an increased hazard in connecting PROW across a carriageway.
21-34	Table 21.10	Last entry refers to the potential impact of the construction workforce using local recreational resources. The council's will seek commuted sums in respect of the increased usage and the resultant increased wear, damage and cost of maintaining these resources for the whole community, but consideration should also be given to those facilities away from the development site and based on where the workforce is likely to live, as we know that at Hinkley Point C that the

Page	Ref.	Comment
		accommodation campus has not been as popular as envisaged at the DCO state and more people are living in surrounding towns.
21-39	Table 21.11	Users of open space not local to the development sites should be added as receptors, especially in relation to use of recreational resources by the operational workforce.
21-40	21.8	The submission contains no examples of potential mitigation measures, instead containing a number of principles, but in general we consider that avoidance of negative effects is preferred and opportunities for beneficial effects should be explored. Off-site improvements should also be considered to offset potential harm.
21-40	21.8.1	This mitigation list omits direct investment in existing green spaces to improve their carrying capacity whilst there is a temporary increase in the local population during construction phases.

## 2.16. HISTORIC ENVIRONMENT: TERRESTRIAL AND MARINE

The Councils' advice on the Historic Environment has largely been ignored and there has been a failure to adequately summarise the Councils' substantive consultation responses to the Stage One Consultation within the scoping submission. There needs to be a full and detailed baseline survey to support the Environmental Impact Assessment, as has been emphasised throughout initial discussions with the applicant. This scheme is likely to cause substantial harm on a landscape scale and it will need an equally substantial and large-scale programme of historic environment assessment, analysis and proposed mitigation and/or compensation to enable a robust assessment of effects.

The Councils are concerned that within the submission there is an overall downplaying of the heritage significance and potential of the area. The area is demonstrably of national, and in some periods, of international significance archaeologically.

The historic landscape is of considerable significance, extremely complex and highly sensitive to change. It is a landscape where the marine, inter-tidal and terrestrial elements have been interchangeable over the millennia, and that owes its individual character to the interplay between the historic and natural environment. This needs to be much better reflected in the heritage, ecological and landscape sections of the environmental statement.

The importance of having a thorough baseline assessment cannot be overstated. This applies to both the main site and off-site Associated Development proposals. The Associated Development proposals also needs considerably more baseline information, starting with a full historic environment baseline survey. There are likely to be major adverse effects of considerable areas of the scheme and it is of great concern that there has been no meaningful or substantive discussion on this to date. Good design choices, including site selection, should be based on a detailed understanding of the specific environmental constraints of the area. Furthermore, without full and detailed historic environment Baseline Surveys the potential mitigation cannot be appropriately defined. Considerable assessment work will be required in both defining the location, nature and significance of heritage assets and their setting to provide an appropriate methodology for the proposed mitigation. Any potential historic environment mitigation/compensation measure needs

to include a clear programme of delivery and will need to demonstrate positive gains to the historic environment.

Where there is to be landscape mitigation in the form of restoration or the creation of new habitats this should also be informed by both the historical and ecological significance of the area.

Specific responses to this chapter of the scoping submission are provided in the table below:

Page	Ref.	Comment
22-23	22.3.1	The implication that this Chapter has been informed by engagement and discussions with key stakeholders is questioned. It is the Councils view that the comments as made in its Stage One Consultation response, and in officer feedback, do not appear to have been taken in account in any substantive way.
22-24	Table 22.3	<p>The Councils have consistently raised with the applicant, and followed up with documents, the requirement for a programme of non-invasive and invasive archaeological studies to establish a robust baseline on the significance of heritage assets and their setting that will be impacted by the proposed scheme. The specific request is detailed below but in summary the methodology should include an enhanced DBA, geotechnical analysis, geophysical survey of terrestrial, inter-tidal and marine areas, walkover surveys including the intertidal area, aerial photographic rectification and analysis, building survey (including the WWII structures), sampling of features and structures identified within the marine and inter-tidal areas and trial-trenching (5% density on a 30m staggered grid-pattern) of the entirety of the terrestrial development area, including any off-site associated development.</p> <p>In response to the June 2020 Scoping Workshop the Councils provided to the applicant the following advice on its requirements:</p> <p><i>BRADWELL B – HISTORIC ENVIRONMENT SURVEY METHODOLOGIES</i>  <i>This scheme needs an integrated historic environment approach and the development of a site-wide Historic Environment strategy which covers the entire development area, including all ancillary sites (roads, compounds, housing, marking, pylons) and environmental off-setting. The strategy needs to cover the marine, inter-tidal and terrestrial environments, and the interactions between the three. This is a fluid and complex historic landscape and much of what was once inter-tidal is now terrestrial and what was once terrestrial is inter-tidal or marine.</i>  <i>We would expect supporting evidence to include</i></p> <p><i>1) Desk Based Assessments (DBA)</i></p> <ul style="list-style-type: none"> <li><i>- Identification of designated and undesignated assets, to include archaeological and built heritage (integrated with the documentary and cartographic assessment)</i></li> <li><i>- WWII assessment of airfield identifying surviving assets</i></li> <li><i>- Assessment of landscape character including identification of historic trees/hedges/ponds</i></li> </ul> <p><i>2) AERIAL PHOTOGRAPHIC ASSESSMENT AND DIGITAL RECTIFICATION</i></p>

Page	Ref.	Comment
		<p><i>This should cover all available sources (including GoogleEarth), at better than 2m accuracy. It should include the inter-tidal area.</i></p> <p><b>3) LIDAR ASSESSMENT AND DIGITAL RECTIFICATION</b>  <i>This should be at better than 2m accuracy.</i></p> <p><b>4) DOCUMENTARY AND CARTOGRAPHIC ASSESSMENT</b>  <i>Assessment by a qualified historian as to the nature, range and potential of the documentary archive available.</i></p> <p><b>5) BUILT HERITAGE ASSESSMENT</b>  <i>Designated and undesignated built heritage assets need assessing, including WWII structures by an appropriately qualified historic buildings recorder. A full record, both external and internal will be required.</i></p> <p><b>6) DEPOSIT MODEL/GEOTECHNICAL WORK</b>  <i>This should cover the former-Medway channel, alluvial deposits and saltmarsh, former creeks and palaeochannels and the Blackwater estuary. It should include the interpretative mapping of landforms (former coastline, cheniers, former islands, sand-banks, palaeochannels, sea defences, etc. and identify areas of significance for further study. This work should be integrated with the overall geotechnical work for BRB, with additional sampling if specific historic environment questions need answering.</i>  <i>The project will require a geoarchaeologist and a Palaeolithic specialist in order to fully integrate the geoarchaeological information, including all past geotechnical work and surveys in the area and forthcoming geotechnical work and surveys. This will have to be a document that is added to as survey work progresses.</i></p> <p><b>7) GEOPHYSICS SURVEY – LAND AND WATER</b>  <i>All methods, including magnetometer, GPR and side-scanning sonar will need to be deployed as appropriate selected for the individual landscapes. There is the potential for additional information to be gained if this work is integrated with the overall unexploded ordnance surveys being undertaken.</i></p> <p><b>8) SHORELINE ASSESSMENT</b>  <i>The inter-tidal area will require a detailed walkover and recording exercise after each set of winter storms at a period of low tide.</i></p> <p><b>9) TRIAL-TRENCHING</b>  <i>Trial-trenching at a density of 5% of the area (this is the standard approach used across Essex for this type of work), using 30m trenches on a staggered grid pattern (with some adjustment to target previously identified features). Across the entirety of the land-take area.</i>  <i>Geoarchaeological test-pits will be excavated within a selection of the trenches to provide transects across the site to refine the Palaeolithic potential of the site. The results are to be integrated back into the deposit model.</i></p>

Page	Ref.	Comment
		<p><b>10) TIDAL FLOW AND EROSION SURVEY</b>  <i>Evidence on the impact of the proposed changes to the estuary and the foreshore and the potential impacts of these on tidal flow and erosion patterns needs to be undertaken, including modelling the potential impacts (both short-term and long-term) on the Scheduled Monuments and archaeological sites in the estuary and the foreshore.</i></p> <p><b>11) SETTING ASSESSMENTS OF SIGNIFICANT HERITAGE ASSETS</b>  <i>Setting assessments for designated heritage assets, this must include LVIA.</i></p> <p><b>12) INTEGRATED CONCLUSIONS AND THE DEVELOPMENT OF A SITE-BASED RESEARCH STRATEGY</b>  <i>To include phased interpretation of the historic landscape, to include the geoarchaeological interpretation as well as the information from the HER, aerial photos, geophysics, trenching and cartographic/documentary evidence.</i></p> <p>The results of this programme of work would form the baseline of evidence required for the development of an appropriate assessment and mitigation strategy, including the identification of areas that should be preserved <i>in situ</i>.</p> <p>Although the applicant held discussions about the historic environment with Historic England in December 2019 and January 2020, it is disappointing that there was no such engagement with the Councils on this topic until June 2020, by which time the Councils' had submitted its response to the Stage One consultation (Table 22.3, p. 22-25).</p>
22-26	Table 22.4	<p>This is an inaccurate representation of the discussion regarding the Stage One Consultation document. The Councils' response does not appear to have been taken into account in preparing the scoping submission. The Councils welcome the commitment to 'have regard to the comments set out in the MDC Built Heritage Impact Assessment comments' (Table 22.4) but are disappointed that many of the issues raised in the assessment are not mentioned in Table 22.4.</p>
22-26	Table 22.4	<p><i>Project provided accommodation-</i> this is not an accurate representation of the discussions regarding the Historic Environment. The accommodation was included in the discussions with the main development site and is subject to the same requirements as the main development (and the off-site Associated Development) for the development of a programme of invasive and non-invasive archaeological studies to form a baseline of evidence (see above and documents previously supplied to BRB).</p> <p>The proposed project-provided accommodation could have a dramatic effect upon the settings of grade II listed building to the west of the site; particularly Timbercot, The Old Cottage, Trusses and Truscott. It may also impact the setting of Peakes and Woodyards, which are non-designated</p>



Page	Ref.	Comment
		heritage assets. While the harm caused by caravans and accommodation blocks would be temporary, limited to the duration of the construction phase, this is estimated to last between 9 and 12 years which is a significant period of time. Table 22.4, p. 22-26 refers.
22-7	Table 22.4	<p><i>Assessment Methodology</i> – This is not an accurate representation of the discussions between Council officers and the applicant regarding the Historic Environment. See responses provided in Section 3.3 Appendix 1 of the Response to the Stage One Consultation (copied below)</p> <p>It is imperative that full and detailed baseline survey, incorporating at a minimum all of the requirements within the attached document, and in our response to Table 22.9 below is undertaken. Without an appropriate baseline survey, the DCO application would fail to provide an understanding of the impact of the Scheme on the historic environment. The baseline archaeological assessment needs to cover the entire development area, including all ancillary sites (highways, areas of search for park and ride compounds, housing, marking, pylons) and environmental off-setting. It needs to cover both marine, inter-tidal and terrestrial environments, and the interactions between the three. This work needs to be undertaken as early as possible within the DCO process. The work to support the DCO process should include:</p> <ul style="list-style-type: none"> <li>▪ <i>Desk Based Assessment</i> Identification of designated and non-designated assets, to include archaeological and built heritage (integrated with the documentary and cartographic assessment) Assessment of the Historic Environment Record Data Assessment of the National Monument Record.</li> </ul> <p>Assessment of landscape character including identification of historic trees/hedges/ponds.</p> <p>WWII assessment of Bradwell Bay airfield and its surviving assets.</p> <ul style="list-style-type: none"> <li>▪ <i>Aerial photographic and Lidar assessment and rectification</i> All available sources (including Google Earth) should be used, to better than 2m accuracy.</li> <li>▪ <i>Documentary and cartographic assessment</i> Cartographic assessment within the Record Office Initial assessment by a qualified historian as to the nature, range and potential of the documentary archive available.</li> <li>▪ <i>Built heritage assessment</i> Designated and non-designated built heritage assets (including WWII structures) and their settings need assessing.</li> <li>▪ <i>Deposit model/geotechnical work</i> The Medway channel, alluvial deposits and saltworks, former creeks Blackwater estuary.</li> </ul>

Page	Ref.	Comment
		<p>Interpretative mapping of landforms (former coastline, cheniers, former islands, sand-banks, palaeochannels, sea defences, etc. (there is potential for information to be gained if this work is integrated with the overall geotechnical work being undertaken)</p> <p>The project will require a geoarchaeologist and a Palaeolithic specialist in order to fully integrate the geoarchaeological information, including all past geotechnical work and surveys in the area and forthcoming geotechnical work and surveys. This will have to be a document that is added to as survey work progresses.</p> <ul style="list-style-type: none"> <li>▪ <i>Geophysics survey – land and water</i> All methods, including magnetometer, GPR and side-scanning sonar will need to be considered (potential for information to be gained if this work is integrated with the overall unexploded ordnance surveys being undertaken)</li> <li>▪ <i>Shoreline assessment</i> The inter-tidal area will require a walkover and recording/sampling and analysis exercise after each set of winter storms at a period of low tide.</li> <li>▪ <i>Trial-trenching</i> Geoarchaeological test-pits will be excavated within a selection of the trenches to provide transects across the site to refine the Palaeolithic potential of the site. The results are to be integrated back into the deposit model.</li> </ul> <p>Trial-trenching at a density of 5% of the area (this is the standard approach used across Essex for this type of work), using 30m trenches on a staggered grid pattern (with some adjustment to target previously identified features). In the area of the airfield trial-trenching maybe the only appropriate method to use.</p> <ul style="list-style-type: none"> <li>▪ <i>Tidal flow and erosion survey and its impact on scheduled monuments and archaeological sites on the foreshore</i></li> <li>▪ <i>Setting assessments of heritage assets</i> Setting assessments for designated and non-designated heritage assets. This must also be included within the Landscape and Visual Impact Assessment (LVIA).</li> <li>▪ <i>Integrated conclusions from the above surveys</i> To include phased interpretation of the historic landscape, to include the geoarchaeological interpretation as well as the information from the Historic Environment Record (HER), aerial photos, geophysics, trenching and cartographic/documentary evidence.</li> </ul> <p>It is imperative that full and detailed baseline survey, incorporating at a minimum all of the requirements within the attached document and in our response to Table 22.9 below is undertaken. Until there is a proper</p>

Page	Ref.	Comment
		baseline survey it is impossible to develop an appropriate mitigation strategy.
22-28	Table 22.4	<p><i>Assessment Scope</i> – This is not an accurate representation of the applicant’s discussions with the Councils regarding the Historic Environment. See responses provided in Section 3.3 Appendix 1 of the Councils’ joint response to the Stage One Consultation.</p> <p>The scope of the assessment should cover the entirety of the Associated Development, including the marine and inter-tidal zone, Park and Ride Schemes, new or altered roads and other associated infrastructure including powerlines. The methodology for a full baseline assessment complying with the requirements is outlined above on comments on Table 22.4, p.22-27.</p>
22-29	Table 22.4	<p><i>Off-site Associated Development</i> – Again, this is not an accurate representation of the discussion previously held - see in Section 3.3 Appendix 1 of the Council’s joint response to Stage One Consultation.</p> <p>The Off-Site Associated development requires the same level of baseline data as the main development area (see above), and it needs to be in place at an early stage in order to inform the location and extent of the Off-site Associated development.</p>
22-31	Table 22.4	<p><i>Baseline</i> – Again, this section does the Council’s comments on provided in response to the Stage One Consultation. In addition to the Designated historic environment assets there are numerous known undesignated assets, some of which can be considered to be of equal significance to the designated heritage assets. In addition, there is a high probability of there being a considerable number of previously unknown heritage assets present. The historic landscape of the Dengie peninsula needs to be considered as a whole, with marine, inter-tidal and terrestrial designated and undesignated assets which form an integrated and nationally significant landscape.</p> <p>The baseline survey has not yet been completed and as such the impact of the scheme is not definable. The DCO application would therefore fail to provide an understanding of the impact of the Scheme on the historic environment should it advance without a thorough understanding of the baseline.</p> <p>For the Baseline section of Table 22.4 it should be noted that the Built Heritage Impact Assessment provided in response to the Stage One Consultation identifies over fifty historic buildings in the Maldon District, along with the Bradwell-on-Sea conservation area, potentially affected by the proposals.</p>
22-33	Table 22.4	<p><i>Mitigation</i> – As none of the baseline surveys or setting studies have as yet been completed the Councils consider that it is not possible to establish whether the mitigation measures will be in anyway appropriate and it is therefore not possible to comment on any detail. The field assessments need to be completed before the application can move forward to an optioneering or design stage.</p> <p>There are a number of sites that are of particular significance and are at particular risk from the scheme and inappropriate mitigation measures</p>

Page	Ref.	Comment
		<p>(the scheduled Saxon Shore Fort and Anglo-Saxon monastery and the Grade I listed St Peter’s Chapel).</p> <p>The mitigation section of Table 22.4 only summarises comments made by Historic England. It omits to mention the comments made with regard to mitigation in the Built Heritage Impact Assessment submitted in response to the Stage One Consultation. For example, the Councils are very concerned about the impact of the development upon the setting of St Peter’s Chapel, arguably the most important historic building in the Maldon District, and certainly the oldest by many centuries. The proposed power station and the associated land modelling works will inevitably be much more prominently visible from St Peter’s Chapel than Bradwell A because of its closer proximity to the grade I listed building and its much greater scale. The power station and the suggested earthworks are also expected to have a major impact upon the group of four grade II listed buildings at East Hall Farm.</p> <p>Two of the locally-listed buildings facing demolition – The Control Tower and Pear Tree Cottages – are of particular architectural and historic interest and may merit being carefully dismantled and re-erected, possibly in the vicinity of the modern war memorial, should retention not be possible. MDC has also suggested that a fund could be established for the repair / enhancement of listed buildings in and around Bradwell-on-Sea. Dilapidated and redundant listed buildings on the Maldon District Heritage at Risk Register could be targeted for funding to secure their repair and sensitive reuse as a way of offsetting the harm caused to Bradwell’s historic environment.</p>
22-34	Table 22.4	<p><i>Stakeholder engagement</i> – Within the submission document again much of the advice provided by the Councils on the historic environment has not been taken into account. It is therefore incorrect to state that the Scope of Works has been informed by the feedback from the consultation opportunities.</p> <p>The SMP (Appendix 22A) is wholly inadequate as a baseline dataset for a scheme of this scale and impact. The basic requirements for a baseline dataset are outlined in with the requirements outlined in Section 3.3.2 Appendix 1 of the Council’s joint response to the Stage One Consultation.</p>
22-34	Table 22.4	<p><i>Transport</i>- The Councils’ comments on the impact of the proposed Transport Scheme on the Historic Environment have been omitted. A baseline dataset for this part of the scheme is required in order to be fed into the decision-making on the location and construction methodologies of any proposed scheme and the development of appropriate mitigation strategies.</p> <p>With regard to the Transport Strategy (Table 22.4, p. 22-34) the Councils have highlighted that many of the historic houses which line the proposed strategic vehicle routes are built close to the edge of the road, reflecting their historic development on narrow roadside strips of land. Their close proximity to the road means they are vulnerable to the noise and vibration that would be generated by the increased volume of HGV traffic, something that would affect the way these buildings are</p>

Page	Ref.	Comment
		experienced and appreciated. In some instances, it may be possible to realign the road away from the front of the listed building, but that is not practical in every case. Along certain parts of The Street, Steeple, there are listed cottages directly opposite one another, either side of a narrow road, making any road widening impossible. A bypass around Steeple would therefore be vital to avoid substantial harm to several listed buildings.
22-36	22.4.3	The Councils concur that the use of a 12km-radius study area for identifying heritage assets potentially harmed through change to setting should be adequate (para. 22.4.3).
22-36	22.4.2-5	The Main Development Site, Off-site power Station Facilities and Off-site associated development will require a full baseline assessment – as detailed under comments on Table 22.4 above.
22-37/38	Table 22.5	All of these off-site associated development study areas will require a full baseline assessment, including all of the following: desk-based assessment, geophysical, aerial photographic and geotechnical assessments, walkovers, building surveys and trial-trenching. See full list of baseline survey requirements under comments on Table 22.4 above.
22.5.5	Table 22.8	The List of Local Heritage Assets in Bradwell-on-Sea is no longer in draft form. It was formally adopted 23 June 2020 following a period of public consultation and is available via the MDC website. Paragraph 22.5.5 and the caption to Table 22.8 should be corrected accordingly.
22-43	22.5.7	This section misrepresents the known archaeological potential of the main development site. There is a failure to understand or acknowledge the full complexity and potential of the archaeology in the area. The archaeological sites known to date include the route of the former Medway river, Mesolithic to Neolithic land-surfaces, several probable Roman villa or farmstead sites, extensive evidence for the Iron Age and Roman salt-making industry on the marshes, a Saxon burial ground, exploitation of marine and inter-tidal assets throughout the millennia including buried land-surfaces, Bronze Age wooden trackways and Saxon fish-traps, at least one previously unknown medieval manorial site (identified during the trial-trenching for the Load Test area), as well as the surviving medieval manorial sites. In addition it contains the possible location of the Roman harbour associated with the Saxon Shore fort at Othona and an emporia associated with the early-mid Saxon monastery and settlement within the fort, there is a high probability of there being extensive later prehistoric settlement on the gravels and on the dryland/marshland interface and the potential for wrecks, both within the marine environment and buried within the marshes.
22-44	22.5.9	This summary of the prehistoric potential is incorrect. Previous investigations nearby and across the Dengie have highlighted the significance of the gravels and channel deposits for the potential for Palaeolithic archaeology and the significance in the Pleistocene succession in eastern Essex. The deposits span an important period of time when there was significant human occupation of Britain. The Dengie Peninsula and the Asheldham Gravel in particular provides a potential

Page	Ref.	Comment
		<p>link between the important Palaeolithic sites at Swanscombe and Clacton. The Pleistocene stratigraphy at the Bradwell site is therefore of nationally geological significance for understanding the Middle Pleistocene stratigraphy in the area by improving understanding of the overall chronostratigraphic framework and landscape context for Palaeolithic occupation.</p> <p>The evidence from the Load Test trenching and excavations outside the development area on the Bradwell-Southminster ridge have demonstrated the survival of archaeological features from the Neolithic period onwards. The ridge has formed the focus for settlement since the prehistoric period and it is highly probable that significant remains will be present in the western and central portions of the site. The Mesolithic-Bronze Age land surfaces are known be present underneath the coastal marsh and within the inter-tidal and marine area. Excavation on equivalent locations within the Blackwater Estuary have identified exceptional survival of organic remains and sites of national and international significance. The potential is High.</p>
22-45	22.5.13-7	The archaeological potential for Iron Age to Roman is High.
22-46	22.5.18-20	This section does not include the results of the Load Test Area trenching. The potential for the Early medieval and medieval period is High.
22-46	22.5.21-23	The potential for the post-medieval period is High.
22-47	22.5.24-25	The potential for WWII archaeology considering a large part of the site is a World War II airfield should be High.
22-47	22.5.26	<i>Off-site Power Station Facilities</i> – These have not been previously discussed with the Councils with regard to the Historic Environment impacts, with insufficient detail provided within the scoping submission as to location, scale or impact. These will need a full baseline survey and assessment. The methodologies for the baseline surveys have not been adequately defined in the submission. We would require all of the following: desk-based assessment, geophysical, aerial photographic and geotechnical assessments, walkovers, building surveys and trial-trenching. See full list of baseline survey requirements under comments on Table 22.4 above.
22-47 to 22-49	22.5.26-22.5.35	It is disappointing that proposals relating to the locations and design of the associated development – such as new sections of road, park and ride and freight-management facilities – remain so vague (paragraphs 22.5.26 - 22.5.35) since these proposals have considerable potential to impact the historic environment. The lack of clarity on new sections of road is particularly concerning since paragraph 2.6.10 states that ‘In order to deliver the Project, it may be necessary to progress critical preliminary works in advance of development consent [...] for example, [...] implementing a number of on-line and off-line highway works’. Greater clarity is need as soon as possible to ensure we can deliver appropriate responses and ensure that significant environmental impacts are identified and addressed.

Page	Ref.	Comment
22-47	22.5.27	<i>Off-site Accommodation</i> – The Councils agreed that this needs a detailed historic environment baseline, however the proposed methodology has not been adequately defined. The historic environment baseline will require a full baseline assessment, including all of the following: desk-based assessment, geophysical, aerial photographic and geotechnical assessments, walkovers, building surveys and trial-trenching. See full list of baseline survey requirements under comments on Table 22.4 above
22-48	22.5.28-9	<i>Associated Development: Park and Ride</i> – These proposals need full baseline surveys in advance of any decision as to location in order to inform the location and scale of the proposed facilities. The proposed baseline methodology has not been adequately defined. The historic environment baseline will require a full baseline assessment, including all of the following: desk-based assessment, geophysical, aerial photographic and geotechnical assessments, walkovers, building surveys and trial-trenching. See full list of baseline survey requirements under comments on Table 22.4 above.  The Essex Historic Environment Characterisation identifies these areas as having moderate to high archaeological potential.
22-48	22.5.30-34	<i>Associated Development: Freight management facilities</i> – The Councils agree that this needs a detailed historic environment baseline, including side-sonar, repeated walkovers and sampling of timbers and land-surfaces in order to establish dates for any features or structures identified in order to develop an appropriate mitigation strategy. The proposed baseline methodology has not been adequately defined. The historic environment baseline will require a full baseline assessment, including all of the following: desk-based assessment, geophysical, aerial photographic and geotechnical assessments, walkovers, building surveys and trial-trenching. See full list of baseline survey requirements under comments on Table 22.4 above.  There needs to be a mitigation plan put in place to ensure that shipping does not inadvertently damage any of the historic environment assets present in the wider area of the estuary, and the impacts of this plan (buoy anchors, boom locations, etc.) needs to be assessed as part of the detailed historic environment baseline survey for the scheme.
22-49	22.5.32-34	<i>Associated Development: Highways works</i> - These proposals need full baseline surveys in advance of any decision as to location in order to inform the location and scale of the proposed facilities. The Essex Historic Environment Characterisation identifies these areas as having moderate to high archaeological potential. The proposed baseline methodology has not been adequately defined. The historic environment baseline will require a full baseline assessment, including all of the following: desk-based assessment, geophysical, aerial photographic and geotechnical assessments, walkovers, building surveys and trial-trenching. See full list of baseline survey requirements under comments on Table 22.4 above.
22-49	22.5.35	<i>Associated Development: Rail</i> - These proposals need full baseline surveys in advance of any decision as to location in order to inform the

Page	Ref.	Comment
		location and scale of the proposed facilities. The Essex Historic Environment Characterisation identifies these areas as having moderate to high archaeological potential. The proposed baseline methodology has not been adequately defined. The historic environment baseline will require a full baseline assessment, including all of the following: desk-based assessment, geophysical, aerial photographic and geotechnical assessments, walkovers, building surveys and trial-trenching. See full list of baseline survey requirements under comments on Table 22.4 above.
22-50	Table 22.9	<p><i>Planned further surveys and studies</i> – the Councils consider that the submission is <u>NOT</u> adequate to provide a suitably detailed baseline assessment in order to allow informed decisions to be made: -</p> <p>The baseline assessment needs to cover the entire development area, including all off-site associated development and environmental off-setting. It needs to cover both marine, inter-tidal and terrestrial environments, and the interactions between the three. This work needs to be undertaken as early as possible within the DCO process to facilitate an understanding of the potential impacts and effects of the proposals. The work to support the DCO process should include:</p> <ul style="list-style-type: none"> <li>▪ <i>Desk Based Assessment</i> Identification of designated and non-designated assets, to include archaeological and built heritage (integrated with the documentary and cartographic assessment) Assessment of the Historic Environment Record Data Assessment of the National Monument Record Assessment of landscape character including identification of historic trees/hedges/ponds. WWII assessment of Bradwell Bay airfield and its surviving assets</li> <li>▪ <i>Aerial photographic and Lidar assessment and rectification</i> All available sources (including Google Earth) should be used, to better than 2m accuracy.</li> <li>▪ <i>Documentary and cartographic assessment</i> Cartographic assessment within the Record Office Initial assessment by a qualified historian as to the nature, range and potential of the documentary archive available</li> <li>▪ <i>Built heritage assessment</i> Designated and non-designated built heritage assets (including WWII structures) and their settings need assessing following recognised guidance, including GPA 3.</li> <li>▪ <i>Deposit model/geotechnical work</i> The Medway channel, alluvial deposits and saltworks, former creeks Blackwater estuary Interpretative mapping of landforms (former coastline, cheniers, former islands, sand-banks, palaeochannels, sea defences, etc. (there is potential for information to be gained if this work is integrated with the overall geotechnical work being undertaken)</li> </ul> <p>The project will require a geoarchaeologist and a Palaeolithic specialist in order to fully integrate the geoarchaeological information, including all</p>



Page	Ref.	Comment
		<p>past geotechnical work and surveys in the area and forthcoming geotechnical work and surveys. This will have to be a document that is added to as survey work progresses.</p> <ul style="list-style-type: none"> <li>▪ <i>Geophysics survey – land and water</i></li> </ul> <p>All methods, including magnetometer, GPR and side-scanning sonar will need to be considered (potential for information to be gained if this work is integrated with the overall unexploded ordnance surveys being undertaken)</p> <ul style="list-style-type: none"> <li>▪ <i>Shoreline assessment</i></li> </ul> <p>The inter-tidal area will require a walkover and recording exercise after each set of winter storms at a period of low tide. Samples to be taken and analysed of any timber structures or land-surfaces, etc identified in order to establish a date.</p> <ul style="list-style-type: none"> <li>▪ <i>Trial-trenching</i></li> </ul> <p>Geoarchaeological test-pits will be excavated within a selection of the trenches to provide transects across the site to refine the Palaeolithic potential of the site. The results are to be integrated back into the deposit model.</p> <p>Trial-trenching at a density of 5% of the area using 30m trenches on a staggered grid pattern (with some adjustment to target previously identified features) of the entirety of the development area (Main and off-site AD).</p> <ul style="list-style-type: none"> <li>▪ <i>Tidal flow and erosion survey and its impact on scheduled monuments and archaeological sites on the foreshore</i></li> <li>▪ <i>Setting assessments of heritage assets</i></li> </ul> <p>Setting assessments for designated and non-designated heritage assets. This must also be included within the Landscape and Visual Impact Assessment (LVIA).</p> <ul style="list-style-type: none"> <li>▪ <i>Integrated conclusions from the above surveys</i></li> </ul> <p>To include phased interpretation of the historic landscape, to include the geoarchaeological interpretation as well as the information from the Historic Environment Record (HER), aerial photos, geophysics, trenching and cartographic/documentary evidence.</p>
22-50	Table 22.9	<p>In Table 22.9: ‘Planned further surveys and studies’, we note ‘site visits to historic buildings within the main development site’. MDC is grateful that its Conservation and Heritage Specialist was permitted to visit locally listed blister hangars on the 26th of August. However, other locally listed buildings which face demolition, such as Pear Tree Cottages, still require an internal inspection, in order to adequately assess their significance as required by para. 5.8.8 of EN- 1. We would expect the applicant to provide a detailed report on each of the assets and the proposed methodology set out in the scoping report for assessing the impact on historic buildings appears broadly acceptable. The locally listed buildings which would be demolished should be recorded at Historic England Level 3 or 4 (Understanding Historic Buildings: a guide to good recording practice (2016)).</p>

Page	Ref.	Comment
22-50	Table 22.9	<i>Load Test Area</i> – This table is inaccurate. There are two elements of further fieldwork required for this area, comprising full excavation of the medieval manorial site and strip-map-and-assess of the Roman agricultural landscape. The trial-trenching still needs to be completed on the remainder of the Load Test area, including under the spoil-heaps where further deposits are likely.
22-52 to 22-55	Tables 22.10 and 22.11	The Councils broadly support the use of the proposed matrices for establishing the sensitivity of receptors (Table 22.10) and for establishing the magnitude of change (Table 22.11) for listed and locally listed buildings. Using these matrices, it is clear that the impact upon the historic buildings will be significant in EIA terms and it is therefore appropriate that it will be scoped into the Environmental Statement.
22-51	22.6.2-6	<i>Assessment of effects and determining significance</i> – The Councils argue that in order to determine significance and assessing the magnitude of change you first have to understand the heritage asset or assets, and that will not be possible until a full and detailed baseline assessment has been undertaken as outlined above (see comments on Table 22.9)
22-57	Table 22.13	<i>Project-wide/construction phase/non-designated buried heritage assets</i> – Reword as ‘Intrusive construction activities may cause loss or alteration to non-designated heritage assets, and their heritage significance, which would be permanent. Moderate to high potential for palaeoenvironmental and archaeological remains of all periods within the main development site, off-site associated development sites and off-site Power Station Facilities. Change to setting arising from the visibility of, or noise associated with, the construction activities could result in harm to the significance of the non-designated heritage assets either in the short or medium-term. <i>Operational phase</i> - It needs to be made clear that this includes both designated and non-designated heritage assets, including the scheduled Saxon Shore Fort and Anglo-Saxon monastery at Bradwell-on-Sea and the Grade I Chapel of St Peter-on-the-Wall, and the medieval and post-medieval landscape character of the area.
22-59 to 22-61	Table 22.14	This Table is confusing, with multiple repetition of the same locations, effects and receptor groups. It needs a review and clarification e.g. the non-designated heritage assets Receptor Group in the first row of the table should include below-ground archaeology and the off-site development (7 <sup>th</sup> row in the Table) should include both designated and non-designated heritage assets, both structural and below-ground. As well as identifying cumulative effects during construction activities (final row) there are also the cumulative effects during its operational period, which can be considered permanent (see Table 22.13)
22-61	Table 22.15	In the second row down the only heritage assets identified as potentially impacted by change to their setting as a result of operation on the development site are those at East Hall Farm, the scheduled Saxon Shore Fort, and the grade I listed Chapel of St Peter. We advise that there are other nearby designated heritage assets likely to be significantly affected by operation on the development site including:

Page	Ref.	Comment
		<ul style="list-style-type: none"> <li>• The grade II listed Cricketers Cottage</li> <li>• The grade II listed Munkins Cottage</li> <li>• The grade II listed Munkins Farmhouse</li> <li>• The grade II listed barn south-west of Munkins Farmhouse</li> </ul>
22-62	22.8.1	The second bullet point of section 22.8.1 states that ‘significant effects on the settings of heritage assets will be mitigated as far as reasonably practicable through design, landscape planting or screening’. Care will need to be taken to ensure that such mitigation measures do not result in harm to the significance of heritage assets by detracting from their open landscape settings.
22-63	22.8.1	The fourth bullet point of section 22.8.1 states that ‘any loss of built heritage assets or historic landscape elements would be mitigated through an appropriate level of survey and recording’. This alone seems unlikely to prove adequate to offset the considerable harm anticipated to local heritage. The Stage One Consultation document promised a ‘heritage-legacy benefit’ for Bradwell-on-Sea. Just recording the historic buildings which will be demolished would fail to achieve this. MDC has requested the applicants consider the careful dismantling and relocation of the most important historic buildings which will be lost so that they can be used for educational purposes. A fund could also be established to repair vulnerable historic buildings on the council’s heritage at risk register.
22-61	Table 22.15	This table needs clarifying. The table has failed to reference both designated and non-designated heritage assets except in the final rows.
22-60	Table 22.16	Given that none of the baseline surveys, LVIAs or Setting studies have been completed it is too soon to making decisions as to the scoping in or out of effects on heritage assets.
22-62	22.8	<p>Potential mitigation – Without full and detailed Baseline Surveys the potential mitigation cannot be appropriately defined. Considerable assessment work will be required in both defining the location, nature and significance of heritage assets and their setting to provide an appropriate methodology for the proposed mitigation.</p> <p>Any potential mitigation measure needs to include a programme of dissemination, including publication, presentation, archiving, outreach and display.</p> <p>Where there is habitat or landscape restoration this should reference both the historic and ecological significance of the area</p>
22-69	Ref 22.59	In the References section, for Ref 22.59 MDC Built Heritage Impact Assessment, a web link could have been included: <a href="https://democracy.maldon.gov.uk/documents/s19664/Appendix%20A%20Appendix%201%20Addendum.pdf">https://democracy.maldon.gov.uk/documents/s19664/Appendix%20A%20Appendix%201%20Addendum.pdf</a>
Appendix 22A		Historic Environment Survey and Monitoring Plan – The Councils consider that this submission is <b>not</b> adequate to provide a suitably detailed baseline assessment in order to allow informed decisions to be made. The baseline assessment needs to cover the entire development area, including all off-site associated development and environmental off-setting. It needs to cover both marine, inter-tidal and terrestrial

Page	Ref.	Comment
		environments, and the interactions between the three. This work needs to be undertaken as early as possible within the DCO process. See Comments on Table 22.9 above
Appendix 22B		These lists should include all of the Designated heritage assets impacted by the proposed off-site associated development.

## 2.17. BIODIVERSITY: TERRESTRIAL AND FRESHWATER ECOLOGY AND ORNITHOLOGY

The Councils are concerned that the submission does not demonstrate that once an adequate baseline has been assessed that the proposals would show how the project has taken advantage of opportunities to conserve and enhance biodiversity conservation interests. The baseline is in need of survey results to be considered a robust basis for assessment of significant effects.

The Councils are also concerned that the categorisation to determine importance at the project level and assessment of magnitude of change on the ecological assets of Maldon District and the wider area are being undervalued.

For a project of this scale, the Councils expect it to deliver offsite opportunities for Biodiversity Net Gain aiming for a target of 25% in perpetuity as its legacy.

The Councils also wish to stress that the Associated Development (AD) sites need to be assessed to an equal level for ecological impacts as the proposals for the Main Development site.

PINS are also requested to consider the specialist advice on this topic provided by other consultees, including Natural England and the Royal Society for the Protection of Birds.

Specific responses to this chapter of the scoping submission are provided in the table below:

Page	Ref.	Comments
23-1	23.1.1	<p>This paragraph states that this ES chapter presents the proposed scope of the biodiversity assessment for the main development site, off-site Power Station Facilities and off-site associated development.</p> <p>Stage One comments included “It is noted that NPS EN1 para 5.3.4 states that “the applicant should show how the project has taken advantage of opportunities to conserve and enhance biodiversity and geological conservation interests” and para 5.3.8 “In taking decisions, the IPC should ensure that appropriate weight is attached to designated sites of international, national and local importance; protected species; habitats and other species of principal importance (Priority) for the conservation of biodiversity; and to biodiversity and geological interests within the wider environment”.</p> <p>The ecology chapter of the Environmental Statement (ES) should thoroughly explore all reasonable options to enhance the development for biodiversity including protected and Priority species to support the Secretary of State in demonstrating their statutory duty to have regard to conserving biodiversity (s41 NERC Act 2006).</p> <p>In line with para 5.3.18, the applicant should therefore include appropriate mitigation measures as an integral part of the proposed development. In particular, the applicant should demonstrate that:</p>

Page	Ref.	Comments
		<ul style="list-style-type: none"> <li>• during construction, they will seek to ensure that activities will be confined to the minimum areas required for the works;</li> <li>• during construction and operation best practice will be followed to ensure that risk of disturbance or damage to species or habitats is minimised, including as a consequence of sustainable transport access arrangements;</li> <li>• habitats will, where practicable, be restored after construction works have finished; and</li> <li>• opportunities will be taken to enhance existing habitats and, where practicable, to create new habitats of value and a substantial legacy within the site landscaping proposals.</li> </ul> <p>It is therefore also expected that the Bradwell B project maximises opportunities in and around developments in order to ensure that such beneficial features are delivered. The Biodiversity Survey and Monitoring Plans (SMP) for both the main site and Associated Developments (AD) have clear objectives outlined for the significant environmental effects. However, these have yet to be progressed in sufficient detail to provide confidence to the Councils that the ES will clearly set out the details of the environmental avoidance, mitigation, compensation and enhancements plans for the Main site and the AD sites.</p> <p>In accordance with Regulation 14 of the EIA Regulations, the ES should also provide a statement about the relevant expertise or qualifications of the competent experts involved in its preparation. This is not transparent in the submission.</p>
23-2	23.1.6	<p>The Councils support the HRA Evidence Plan (EP) being developed and note that this constitutes a non-legally binding agreement between the applicant and the relevant Statutory Nature Conservation Bodies (SNCBs) and competent authorities on the information that needs to be provided in order to produce a robust and appropriate HRA. Whilst we note that the process has not progressed far enough yet, it is expected that this assessment will need to consider any impacts in combination with other plans and projects including Sizewell C. We recommend that the ES text explains the need for Stage 2 HRA Appropriate Assessment should the EP conclude that, without mitigation, Likely Significant Effects cannot be ruled out; this consequence is not currently included.</p>
23-57	23.7.3 and Table 23.10	<p>The Councils are concerned that the categorisation to determine importance at the project level and assessment of magnitude of change on the ecological assets of Maldon District and the wider area are being undervalued. We challenge the assumption that that Priority species and habitats can only be valued at the local level where there is a lack of detailed information on conservation status of Priority species and habitats within the District. Habitats designated as Local Wildlife Sites (LoWS) are valued at least of County level importance and may be higher. As there is very little data available at a regional level, we do not consider that this is a relevant category for evaluation of likely significance. Nationally, designation of SSSIs has only ever been to protect a suite of habitats and</p>

Page	Ref.	Comments
		was never intended to be comprehensive. The Scoping Report Table 23.10 does not explain how impacts to receptors of lower than 'medium' scale of change will be assessed. As the Project design evolves, we recommend that the Scoping Report allows for any effects which may become significant, to be assessed using methodology in line with Chartered Institute of Ecology and Environmental Management (CIEEM) 2018 Guidelines for Ecological Impact Assessment. We would remind the Applicant to ensure that sufficient regard is given to biodiversity as required by the NERC Act 2006 and the relevant NPSs, and that all receptors that could be significantly affected are assessed.
23-74	23.8.1	Biodiversity potential compensation - All areas of potential mitigation, compensation or replacement habitat will have to be assessed for their impact on the historic environment using the same baseline methodology as that used for the main scheme. The Restoration Plan should be based on evidence from both the natural and historic environment. This is a complex, integrated historic and natural landscape and both elements should be addressed by the Restoration Plan.
23-59 and 23-64	Tables 23.11 and 23.12	These tables should be amended as follows: <ul style="list-style-type: none"> <li>• refer to Local Wildlife Sites as LoWS</li> <li>• remove reference to Local Biodiversity Action Plan as this has been archived.</li> <li>• refer to farmland birds as an example of Priority (SPI) species birds</li> </ul>
23-70	Table 23.13	This list of potential significant effects scoped in for further assessment in the ES needs to refer to Priority (SPI) species under ecological features to ensure this includes farmland birds for construction activities "Land-take and land-cover change resulting in permanent loss or degradation of habitat" and "Habitat change and degradation including through indirect effects".
23-74	23.8.1	The Councils support the aim for the Restoration Plan to include maximised opportunities for biodiversity conservation and the statement to deliver overall net gain for biodiversity in the long term. It will be essential for Habitat Management Plans for both the Main site and AD sites and the Restoration and Re-instatement plans to be DCO Requirements so that the LPA can secure long term benefits for biodiversity of the Maldon District. Any section of this chapter that refers to badger setts such as Appendices C & F will need to be clearly marked as Confidential and made available separately to ecology consultees for review.
Appendix 23C	1.3.1	The Biodiversity SMP for offsite ADs should also specifically reference Priority species likely to be present in the off-site AD habitats, particularly as summer 2020 may not be the survey window for some species. The Biodiversity SMP for offsite ADs also needs to take on board stakeholder comments on the main Site SMP re Phase 2 survey methodologies e.g. non-moth Priority species. This supports our response to Stage One Consultation comment that "The Associated Development sites need to

Page	Ref.	Comments
		be assessed to an equal level for ecological impacts as woodland and other habitats affected by these in addition to the Main Development site.”
Appendix 23C	2.2	<p>As for main site SMP, the Biodiversity SMP for the offsite ADs needs to include a 100m buffer from the Phase 1 boundary to identify any offsite opportunities for Biodiversity Net Gain and we note that the main site SMP will refine the boundary for the DCO. We welcome reference in 2.2.12 to Priority habitats.</p> <p>The remote sensing of habitats within the search areas for off-site Associated Developments needs to be supplemented with ground truthing to give confidence of the results. This should identify all Priority habitats and their suitability for both protected and Priority species as this information will need to inform optioneering of the AD sites and transport routes. Once the sites are narrowed down, site level assessment of likely impacts will need to be robust to inform the selection, design and environmental impact assessment of these off-site ADs.</p>
Appendix 23C	2.3.3	<p>There is a need to target note farmland habitats to inform Phase 2 surveys – arable &amp; improved grassland are not necessarily of low nature conservation value as support protected and Priority species (not just notable). There is a need to agree what will be a “particular feature of interest” for faunal target notes e.g. trees with bat Potential Roost Features, habitat for reptiles, amphibians, a range of inverts, Priority farmland birds etc.</p> <p>We welcome reference to invasive species.</p>
Appendix 23C	Table 2.1	<p>This table should also refer to Priority species in the type of data for legally protected and notable species.</p> <p>In addition to chapter 23 Environmental Statement requirements, it will be necessary to also provide sufficient information on non-significant impacts on protected and Priority species and habitats at submission either in a -EIA chapter or separate documentation. This is necessary in order that the Councils have certainty of all likely impacts, not just significant ones, from the development and can prepare the Local Impact Report and Statement of Common Ground with any mitigation and compensation measures needed to make the development acceptable, secured by DCO requirements.</p> <p>As the Councils and the Secretary of State need to demonstrate their s40 biodiversity duty, it will be important that the submission (separate from the main ES) includes this information as well as details required by EIA Regulations. If the Councils have planning policies relating to Priority habitats and species, then they can insist that measures are secured by a DCO Requirement; Annex A of BS 42020:2013 determining the “significance” of impacts states that significance under planning policy has no specific definition so does not have to match the significance thresholds identified by the ES scoping opinion to be unacceptable without mitigation.</p>

Page	Ref.	Comments
Appendix 23C	Table 3.1	<p>We note that as part of the desk study to inform the survey requirements, records for species have been provided by both EWTBRC and EFC as requested. All records from any new or updated surveys undertaken should be shared with both EWBRC and EFC.</p> <p>We welcome provision of environmentally sensitive data in separate confidential appendices which should not be in the public domain (e.g. Appendices C &amp; F Confidential: badger data and Full List of Records Provided by EWTBRC and EFC). These will need to be made available separately to the LPAs and ecology consultees for review.</p> <p>We recommend that as these documents are intended to remain confidential, the Applicant should provide these 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 or Councils would be required to disclose under the Environmental Information Regulations 2004.</p>
Appendix 23C	Box 2.1 and 4.1.1	<p>Local Wildlife Sites in Essex should be referred to as LoWS as included in the Council's Stage One Consultation comments. Reference to habitats and species listed within the Essex Local Biodiversity Action Plan (LBAP) and Essex BAP are out of date as this document has been archived. This should be amended to s41 Priority habitats (HPI) and species (SPI).</p>
Appendix 23C	Table 3.1 and 4.3	<p>Priority species (SPI) should be listed in Table 3.1 with legally protected and otherwise notable species as biodiversity receptors. We note that records of these have been returned from EWTBRC and EFC (Table D.3 in Appendix D) and welcome that these are clearly listed in the text in section 4.3 where relevant.</p>
Appendix 23C	4.3.33	<p>The text refers to Bradwell B Preliminary Ground Investigations Ecological Appraisal and "The farmland to the east of the power station supported numbers of breeding corn bunting (present throughout the year) and yellow wagtail that were important in terms of the county (Essex) populations, and the area also supported high numbers of breeding skylark, reed warbler and turtle dove" (all Priority species). This survey information needs to be considered in ES chapter 23 Terrestrial ecology.</p>
Appendix 23C	3.2.3	<p>Cultivated land: There is no mention of any Target Notes for farmland birds on the cultivated land or reference to survey work as requested. We note that farmland birds have been recorded in the draft Overwintering birds report (Year 1 only). The Councils ask for confirmation where will this be reported separately and that it will include further years for overwintering and breeding birds with appropriate methodology agreed in advance.</p>
Appendix 23C	3.2.41	<p>There is no reference to which hedgerows need to be considered as Priority habitat. This section needs to confirm any hedgerows on the Main site meet the definition for Priority habitat.</p>
Appendix 23C	3.2.48	<p>The reference to black poplar trees may cause confusion with native black poplar. Please clarify that these trees are not native.</p>
Appendix 23C	3.3.2 and 4.3.3	<p>Reference to six species of non-breeding farmland birds e.g. skylark (peak count 52) are all Priority species. Impacts will therefore need to be</p>



Page	Ref.	Comments
		addressed and offsite compensatory habitat provided for the construction period as a minimum.
Appendix 23C	3.3.24	Lapwing are a qualifying feature of Thames Estuary and Marshes SPA and Ramsar. Potential for site to be Functionally Linked Land should therefore be considered and referenced.

## 2.18. MARINE ECOLOGY AND FISHERIES

The Marine Management Organisation, Natural England and Environment Agency are expert advisors on the marine environment and will provide specialist technical advice to PINS on the appropriate scope and assessment methodology on potential direct effects of the proposed development on marine ecology and fisheries. The Royal Society for the Protection of Birds will also provide expert advice in relation to ecology, together with the Essex Wildlife Trust.

There are many inter-relationships between this chapter and others concerning both the marine environment and terrestrial environment, which we would ask is covered in the Environmental Statement with overlapping assessments as appropriate. We are also concerned that receptors are too tightly defined and local impacts may not be fully assessed. For example, whilst the submission highlights the local commercial fishery interests it does not appear to take into account a small impact that could have a major local effect when tables 24.14 and 21.15 are considered. The submission does however refer to a separate Commercial and Recreational Fisheries assessment, but little detail is provided.

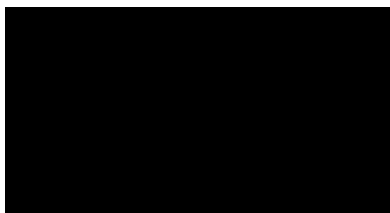
In relation to ecology the Councils have identified published research on the presence of seagrass beds off Essex and occurrence of seahorses in North Sea. There are mapped seagrass beds off Foulness and in the Blackwater estuary, so seahorses could be present although there are very few records for Essex since 1860s (at Brightlingsea). However, few marine surveys are undertaken but there are records of seahorses for Thames Gravesend Reach from 2006/7. It is therefore possible for seahorses to be present and they may therefore be affected by this development if activities that damage/disturb the sea floor. Both of the two-seahorse species found in UK waters (short snouted seahorse and spiny seahorse) are protected under Schedule 5 of the Wildlife & Countryside Act 1981. It is an offence to kill, injure, capture or possess seahorses in British waters. Intentionally disturbing seahorses in the absence of a wildlife licence could lead to enforcement action.

Specific responses to this chapter of the scoping submission are provided in the table below:

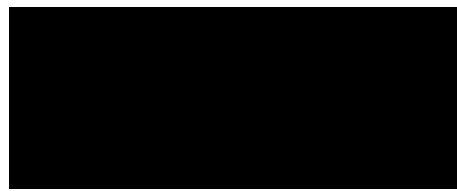
Page	Ref.	Comments
24-27	Table 24.4	The Councils welcomes the applicant's aims for biodiversity net gain and support Natural England's view that this should also be included for marine ecology, as well as terrestrial and freshwater ecology.
24-37	Table 24.6	Given that there are seagrass beds within the Blackwater estuary, the Councils recommend that reference to the potential for seahorses to be present is added to the future baseline to avoid any offence and loss of their habitat.
24-44	Table 24.8	Marine Conservation Zones should appear on this table.

Page	Ref.	Comments
24-58	Table 24.16	In addition to harbour porpoise, consideration should be given to the harbour grey seals. Information on grey seal prevalence can be found in a 2016 report by the Sea Mammal Research Unit <a href="http://www.smru.st-andrews.ac.uk/files/2017/04/SCOS-2016.pdf">http://www.smru.st-andrews.ac.uk/files/2017/04/SCOS-2016.pdf</a>
24-75	24.7.12	The Councils note that only development that could not possibly have marine ecology or fishery impacts are proposed to be scoped out, due to physical separation from the coast, and that Associated Development close to the main site will be scoped into the Environmental Assessment.

Yours sincerely,



Richard Greaves  
Principal Planner  
Sustainable Growth Directorate  
Essex County Council



Paul Dodson  
Head of Strategy, Performance  
& Governance  
Maldon District Council

**From:** [Clare Milligan](#)  
**To:** [BradwellB](#); [BradwellB](#)  
**Subject:** Re: EN010111- Bradwell B new nuclear power station - EIA Scoping Notification and Consultation  
**Date:** 28 October 2020 16:49:14

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Dear Sir/Madam

Further to your email below Great Baddow Parish Council would like to make the following comment:

'The Council continues to have concern about the impact of the increased traffic to the area and the environment.  
The Council would ask that rail is used rather than lorries and the rail link to Southminster is extended to accommodate this for the site.'

Kind regards

**Clare**

Clare Milligan  
Clerk to the Council  
Great Baddow Parish Council  
19 Maldon Road  
Great Baddow  
Chelmsford  
Essex  
CM2 7DW

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**From:** BradwellB <[BradwellB@planninginspectorate.gov.uk](mailto:BradwellB@planninginspectorate.gov.uk)>  
**Sent:** 09 October 2020 17:27  
**Subject:** EN010111- Bradwell B new nuclear power station - EIA Scoping Notification and Consultation

Dear Sir/Madam

Please see the attached correspondence on the proposed Bradwell B new nuclear power station.

Please note that the deadline for consultation responses is 7 November 2020 and is a statutory requirement that cannot be extended.

Kind regards.

Alison L Down  
EIA Advisor  
Environmental Services  
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Web: [www.gov.uk/government/organisations/planning-inspectorate](http://www.gov.uk/government/organisations/planning-inspectorate) (The Planning Inspectorate)

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DPC:76616c646f72



**From:** [Dave MHPD Adams](#) on behalf of [NSIP Applications](#)  
**To:** [BradwellB](#)  
**Cc:** [ONR Land Use Planning](#)  
**Subject:** NSIP - Bradwell B new nuclear power station - EIA Scoping Consultation  
**Date:** 12 October 2020 10:43:25  
**Attachments:** [BRAD - Statutory consultation letter.pdf](#)

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Dear Marnie Woods,

Thank you for your EIA Scoping Consultation email, dated 9/10/20, with regard to the new Bradwell B nuclear power station.

Although HSE does need to be consulted for the purposes of regulation 13 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, nuclear power stations are outside our vires.

I have cc'd in the Office for Nuclear Regulation (ONR) who you will have no doubt also contacted.

Kind regards,

Dave Adams

**Dave.MHPD.Adams**

Chemicals & LUP Policy Adviser | Engagement & Policy Division (EPD) |  
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**From:** BradwellB <[BradwellB@planninginspectorate.gov.uk](mailto:BradwellB@planninginspectorate.gov.uk)>

**Sent:** 09 October 2020 17:28

**Subject:** EN010111- Bradwell B new nuclear power station - EIA Scoping Notification and Consultation

Dear Sir/Madam

Please see the attached correspondence on the proposed Bradwell B new nuclear power station.

Please note that the deadline for consultation responses is 7 November 2020 and is a statutory requirement that cannot be extended.

Kind regards.

Alison L Down  
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6<sup>th</sup> November 2020

## **BRADWELL B ENVIRONMENTAL STATEMENT SCOPING OPINION**

Thank you for inviting Highways England to provide comments in response to the Environmental Statement (ES) Scoping Opinion for the proposed Bradwell B nuclear power station development.

Highways England manages the Strategic Road Network, which in the context of the Bradwell B proposal constitutes the A12 trunk road and, further beyond, the M25, A14 and A120. The two nearest points of access to the Strategic Road Network as the crow flies are A12 Junction 17 ('Howe Green Interchange' where the A12 meets the A130 Rettendon Bypass and the A1114 which leads into Chelmsford) and A12 Junction 18 ('Sandon Interchange' where the A12 meets the A414 towards Danbury and the A1060 Maldon Road which routes towards Chelmsford). The development site is approximately 25km from the A12.

Highways England has participated in discussions with representatives for Bradwell Power Generation Company Ltd alongside the local authorities and we have responded to earlier consultations. Some of the points raised in this letter in response to the ES Scoping Report have been raised in previous communications but are considered important to reiterate here.

We recognise at this stage that there are aspects of the proposed development which are not yet determined. Whilst we appreciate further details will be provided in due course, with respect to some issues we are not able to confirm our full agreement with the proposed scope and approach at this stage and await further details to follow that may allow us to provide a more definitive view.

For ease of reference, we have highlighted in bold the parts of the ES Scoping Report which we are commenting on.

**Paragraph 3.6.9** sets out eight Transport Strategy objectives which we consider to be reasonable. It will be vital that these objectives are adhered to closely to ensure that opportunities for using more sustainable modes for transporting construction workers and materials to the site are maximised as this will help to manage impacts by Heavy Goods Vehicles (HGVs) on the surrounding highway network including the A12. The objectives should be used as the basis for determining the specific actions, methodologies and proposals. It will need to be strongly demonstrated in the ES and supporting documentation that there are clear, evidence-based links between the proposals put forward and the objectives.

Evidence will need to be presented in the ES and supporting documentation to demonstrate the extent to which Bradwell B development proposals will achieve these objectives. As a suggestion, this could in part be achieved for example using a Red-Amber-Green assessment framework with supporting commentary and sign-posting to all relevant evidence recorded in the ES and supporting documents. This should be integral to a Transport Strategy-led approach to developing proposals, including transport mitigation measures, and be used iteratively to check and challenge emerging approaches against the objectives prior to finalisation of proposals. Such an approach would provide clarity to Highways England that the eventual set of proposals have been developed and refined through a robust, evidence-based approach in discussion with key stakeholders.

We note the Scoping Report is limited in specific details relating to the volumes, distribution and routings of construction transport movements, and this is to be informed by more detailed estimates and a gravity model. We consider that these details are required prior to confirming the geographic scope of the study which is presented in **Figure 6.1**.

Figure 6.1 shows the study area not extending as far south as the A13 and A127 routes, both of which lead to the M25 at Junctions 30 and 29 respectively. These routes are potentially quicker to reach Bradwell from the south as opposed to the A12 via Junctions 17 or 18. At this early stage it is unclear if any HGVs will route from the A13 or A127 but certainly construction workers travelling by car will be able to use any conceivable route unless restrictions are applied. We would like the ES to consider the potential use of the A13 and A127. However, the study area can only be confirmed once the results of the gravity model and estimated trips/trip patterns are clarified, which should be driven by an agreed, overarching Transport Strategy.

**Table 6.2** refers to a range of technical guidance for the assessment of transport. Reference should be made to DfT Circular 02/2013 'The Strategic Road Network and the delivery of sustainable development' (September 2013). Reference be made to 'The strategic road network – Planning for the future: A guide to working with Highways



England on planning matters' (September 2015) and the East of England Route Strategy (March 2017). It is also important that the latest iteration of the Transport Analysis Guidance, published in 2018, is referred to.

**Paragraph 3.4.21** indicates a current central estimate of 9,100 construction workers, or a worst case estimate of 10,600 workers. Evidence is required to demonstrate how the number of workers has been estimated and how this is proportionate and specific to the scale and complexity of works required at Bradwell.

**Paragraph 3.4.31** identifies the need to import aggregate, suggesting the materials could be sourced locally or transported to the site from elsewhere. Evidence is required of where aggregate suitable for construction in this context will be sourced, and it clearly be demonstrated how this has informed the freight modal strategy and numbers of freight vehicle movements using the Strategic Road Network.

**Paragraph 3.4.33** discusses the movement of Abnormal Indivisible Loads (AILs) and confirms that some will be transported by sea and some by road. Those transported by road could use parts of the Strategic Road Network. More details will be required of the procedures for moving AILs by road, including number of movements per day, the period of the day that AILs will be present on the road network, escorting requirements, and suitable and safe routes.

**Paragraph 3.4.39** indicates that the applicant is still considering the opportunity for rail. If found to be realistic, this could be an essential component to an overarching sustainable transport strategy and would potentially help reduce the number of freight movements by road over a wider area, particularly if construction materials are having to be sourced from other parts of the country and it would be more efficient to transport them in bulk over longer distances by rail rather than by road.

The ES and supporting documentation should clarify the relationship between different freight transport modes, including any potential for intermodal transfer. The potential for marine transport needs to be referenced in more detail in the context of the wider Transport Strategy, as opposed to a separate mode in its own right.

Further details will be required of which ports will be used to then transport construction materials by sea, and whether there are any intermodal implications and additional HGV movements that need to be assessed at those ports.

**Table 6.5** refers to typical traffic conditions in Google Maps which has been used to get pre-COVID 19 representation of how the highway network has operated. Google Maps provides colour-coding to indicate levels of congestion. This data source is adequate at scoping stage, but clearly more reliable and detailed information will be needed to

support the ES. We are not fully convinced in all situations that 'Typical' traffic information provided in Google Maps at the time of writing is representative of pre-COVID conditions.

**Paragraph 3.1.5** indicates that the proposed micro-simulation model will cover a 12-hour period from 7am to 7pm, however **Paragraph 6.6.48** states that the model will cover a 13-hour period from 6am to 7pm. It should be clarified which period of time the model will cover.

Further to the point made earlier in this response regarding the study area, the scope of the Paramics model as shown in **Figure 6.12** should be informed by a transport strategy-led approach to identifying the transport modes, volumes and patterns of movement. We note the model is not covering A13 and A127 and their linkages with the M25.

The model appears to extend north as far as A12 Junction 22 Colemans Interchange, Witham. The future year network will need to consider the A12 Chelmsford to A120 widening scheme currently under development by Highways England. Consideration may need to be given to any influence the A12 scheme could have on the Bradwell B proposals, including potential for coinciding construction phases.

**Figure 3.3** presents the proposed Early Years routes A and B for construction traffic. Route B might involve HGVs routing through both A12 Junctions 17 and 18. These junctions are relatively close together. It may be appropriate for the Transport Assessment to include an assessment of weaving traffic between these junctions, as described under the Design Manual for Roads and Bridges CD 122 Geometric design of grade separated junctions.

Clarification is required on why these routes have been proposed and whether any other alternatives have been discounted. It appears that the routes end at the A130/A132 junction to the south west of South Woodham Ferrers as opposed to A12 Junction 17 (i.e. back to the SRN). This would appear to suggest therefore that HGVs could route southwards via A13 or A127. Clarification is required on the expected routing of HGVs beyond the indicative study area.

**Figure 3.5** shows the Park and Ride facilities search areas. Highways England considers that the location of Park and Ride should be determined after an agreed overarching Transport Strategy is established. Based on the information provided in the ES Scoping Report, one of the search areas is around A12 Junction 18. It should be clarified if this will be a new facility or potentially linked with the existing Sandon Park and Ride. Depending on the location of the facility and access arrangements, it may be

necessary to supplement the VISUM and Paramics models with more detailed junction-based models.

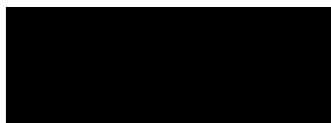
Consideration should also be given to assessing the potential for additional pedestrian and cyclist movements to the Park and Ride on roads immediately surrounding the facility. A12 Junction 18 has quite limited facilities for non-motorised users which are not intensively used at present. It may be appropriate for a Design Manual for Roads and Bridges GG142 Walking, Cycling and Horse-Riding Assessment and Review (WCHAR) to be undertaken alongside the Transport Assessment.

**Section 3.6** outlines potential off-site associated development including a Freight Management Facility. Further details are required of the form, function and location of such a facility, in addition to how it will be integral to the safe and efficient movement of HGVs across the wider highway network. Details should also be provided of the Delivery Management System which we assume will be critical to managing the movement of HGVs, including the technology to be used for example Automatic Number Plate Recognition cameras and/or Global Positioning System.

Evidence will be required that the capacity of the facility is proportionate to the number of construction HGVs which is driven by a Transport Strategy-led approach to determining how constructions workers and materials will be transported to the development site.

Highways England looks forward to further engagement in the development proposal, including opportunities to review a forthcoming Transport Assessment scoping report, subsequent Transport Assessment, Travel Plans, Traffic Management Plans, Incident Management Plans and other relevant documents, especially where these may have an influence on the Strategic Road Network or where Highways England could play a role in supporting the efficient movement of development traffic.

Yours faithfully



Simon Willison

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Our ref: PL00632265  
Your ref: EN010111

Date: 6 November 2020

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**BY EMAIL**

Dear Ms Down

**Bradwell B – EIA Scoping Report consultation (dated October 2020)  
Prepared by Bradwell Power Generation Company Limited**

**Planning Inspectorate Ref: EN010111\_000041\_201009**

Thank you for your letter of 9 October with a formal request for a scoping opinion in relation to the above application. Historic England, as the government's lead advisor on the historic environment, would like to offer comments on this proposal, taking into consideration the information provided by the applicant: the EIA Scoping Report and Appendices – Bradwell B.

### **The Proposed Development**

The proposed development (Bradwell B) would comprise a new nuclear power station comprising two UK HPR1000 reactors, together with associated buildings, structures and components. Located to the south-east of the Bradwell A nuclear power station, which ceased electricity generation in 2002, Bradwell B would have an expected electrical output capacity of approximately 2.2 Gigawatts (GW).

In addition to the permanent facilities on the main development site, there may be the need for additional off-site terrestrial permanent facilities.

The off-site associated works include park and ride facility or facilities, freight management facility or facilities and off-site highway works, as well as potentially off-site rail infrastructure works. It will also require temporary project-provided accommodation, with associated works.

The ES for the DCO application will be undertaken with appropriate parameters using the Rochdale Envelope. The adoption of realistic worst-case scenario(s) will enable the Project's stakeholders and the Secretary of State to be confident that the environmental impacts of the Project would be no greater than those identified in the ES.



## **EIA procedures**

For this proposed NSIP the EIA exercise will be conducted in accordance with the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (as amended).

Furthermore, works subject to a marine licence need to be assessed under the requirements of the Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended) (the 'EIA Regulations'). Matters as relevant to the 2018 Withdrawal Act, includes the Environmental Assessments and Miscellaneous Planning (Amendment) (EU Exit) Regulations 2018 and the Environmental Statement of Plans and Programmes and the Environmental Impact Assessment (Miscellaneous Amendments) (Wales) (EU Exit) Regulations 2019. It is understood that these regulations do not make substantive changes to the way the EIA regime will operate in England following Brexit.

## **Historic England Advice**

The historic environment is a finite and non-renewable environmental resource which includes designated and non-designated heritage assets, conservation areas, historic landscapes and sites of historic and evidential interest. It is a rich and diverse part of England's cultural heritage and makes a valuable contribution to our cultural, social and economic life.

We confirm that the historic environment represents a potentially significant issue in EIA terms, and confirm that the historic environment should be 'scoped in' to the assessment.

We note Chapter 22 relating to the Historic Environment, Terrestrial and Marine and Appendix 22A Historic Environment Survey and Monitoring Plan that have been submitted with the Scoping Report. We agree that the scoping report has taken into consideration both designated and non-designated heritage assets and that the assessment methodologies are generally appropriate – and we offer the following comments below. For clarity, we have set out our comments on the historic environment under the following headings: Terrestrial and Marine.

By following planning policy and guidance, we would expect the project to be creative in how it might offer opportunities for the enhancement of heritage assets, and how the project might deliver public (heritage) benefit. The ES should aim to make clear public heritage benefits and outreach as part of planned mitigation.

We would advise the ES should put forward proposals for the use, display and interpretation of archaeological evidence that will be revealed by the development and



to provide enhancement to heritage assets and secure wider heritage benefits as part of the scheme and we would be pleased to provide advice about potential heritage schemes.

## **Terrestrial**

In terms of Terrestrial, we welcome the investigations that are proposed to assess cultural heritage. We also welcome the proposed timetable for each stage of the assessment process and note that the assessment process is already well in progress (Appendix 22A, Tables 3.1 and 22.9).

We would highlight, in particular, our concerns about the impact, and potential harm, to the setting of the adjacent scheduled monument, Saxon Shore fort and Anglo-Saxon monastery at Bradwell-on-Sea (NHLE no. 1013834), complete with the grade I listed Chapel of St Peter on the Wall (NHLE no. 1110942), built astride the former west wall of the Roman fort. We anticipated this will be a key issue in terms of the historic environment.

The chapel is one of the earliest churches in Britain, believed to have built by St Cedd (an Anglo-Saxon monk and bishop from the Kingdom of Northumbria) in the mid 7th century AD; St Cedd is recorded in the writing of Bede in his *Ecclesiastical History of the English People*, written in the first half of the 8th century and one of the most important and earliest accounts of Anglo-Saxon England. The chapel is set in a remote coastal location, typical for early ecclesiastical sites, and the remote landscape context, and powerful sense of isolation that is still experienced by visitors, is crucial to the significance of this building and the Roman fort. These designated heritage assets are located immediately outside of the redline boundary of the main development site and the impact of the proposed main development (as well as any offshore works) on the setting of these designated heritage assets will require particularly careful assessment, and detailed proposals will need to be developed to mitigate the impact of the development.

The approaches summarised in Appendix 22A: the Historic Environment Survey and Monitoring Plan are appropriate and more detail will be required in due course about the questions that will be addressed, and the sampling strategies and specific approaches that will be utilised.

We note that a preliminary deposit model has been produced (Section 22.1.5). It would have helpful to include a copy of the model as an appendix in the scoping report in order to understand the level of data coverage, the archaeological potential of the development site, as well as the potential impacts of proposed development. Table 22.14 summarises the likely significant effects that the proposed development may have on the historic environment. It is stated that there is the potential for permanent disturbance of archaeological and palaeoenvironmental remains, which we





acknowledge. The geoarchaeological deposit model or the hydrological conceptual model is required to assess whether there is the potential for organic materials to be preserved on the site, and if the proposed development will affect groundwater levels and, therefore, preservation conditions in the deposits adjacent to the development.

The hydrogeology and hydrology of the study area has been discussed in Sections 14.5.15 and 14.5.17 of the scoping report, and the water environment in Chapter 15. Information within these sections could be of use when understanding the archaeological potential of the area and the preservation conditions that may be expected, such as the conceptual model and groundwater monitoring information (Section 15.4). For example, waterlogged deposits have the potential to preserve organic archaeological remains, such as wood (structural remains and artefacts), leather and environmental remains, but the deposits are vulnerable to changes to the groundwater levels or to the quality of water. Any changes can result in the degradation and loss of fragile archaeological remains. We would recommend that the issues raised in these chapters are included in the assessments and discussions of the archaeological potential and possible impacts that the proposed development may have.

In Section 14.5.13 it is stated that made ground was not recorded on mapping for the main development site, but that the adjacent existing Bradwell power station appeared to be directly underlain by made ground across its footprint, which may have been around 3m in parts of the site. It is important to understand what is meant by made ground as archaeology deposits are sometimes included within this classification.

Table 22.6 summarises the principal desk-based resources that will be used, stating that the Environment Agency Lidar data will be used to construct a digital terrain model, where coverage is available. We would recommend that the Historic England guidance '*Using Airborne Lidar in Archaeological Survey: the Light Fantastic*' (2018) informs this work.

We acknowledge that the detailed historic environment baseline assessments still need to be produced for a number of areas of the proposed development, such as the Offsite Power Station Facilities (Section 22.5.26), Offsite Associated Development works (Section 22.5.27), and the Park and Ride facilities (Section 22.5.28). For some of these elements, it is not clear where they will be placed at this stage and so the historic baseline will be produced once it has been decided.

We note the baseline LVIA produced (Chapter 20) and recommend the LVIA is supplemented with heritage specific viewpoints (photographs, photomontages and wirelines) that illustrate the ES and support the results of the heritage assessment. If these are to be presented in the landscape and visual chapter, the assessment needs to be clearly set out and cross-referenced with the heritage chapter.

We look forward to constructive engagement with the applicant, at an early stage, to agree the proposed onshore key viewpoints for visualisations relating to the assessment of setting on designated heritage asset,.

In terms of the main development site, the ZTV (Chapter 20, Fig. 20.2) should be reproduced in relation to the designated heritage assets, and any significant historic landscape and coastal elements, and used to inform the selection of potential viewpoints to assess the impact of the proposed development on the setting of heritage assets. We advise that the designated heritage assets are also plotted beyond the proposed 12km search radius (Appendix 22A, 2.2.1) to ensure any outlying designated heritage assets and conservation area with long-views out towards the main development site, and that might be adversely affected, are also adequately considered. Again, we look forward to discussing and agreeing these viewpoints in detail.

For the setting survey for off-site associated development (Table 22.5 and Appendix 22A, 2.2.2 and Table 2,1), and the impact of these proposed developments on the setting of designated heritage assets, conservation areas and any significant historic landscape elements, we note that either a 500m buffer (minor online and offline highway improvements) or a 1km buffer (other off-site associated development) is proposed for the assessment for both direct and indirect effects of these development proposals. We recommend that ZTVs are also prepared for the off-site associated development, covering a larger area than 1km, to ensure that the impact of the off-site associated development is also adequately assessed.

We note the setting assessment set out in Sections 5.4 and 22.6. Whilst standardised EIA matrices are considered in some planning practices to be useful tools (provided in Tables 5.5-6 and 22.10-12), we consider the analysis of setting (and the impact upon it) as a matter of qualitative and expert judgement which cannot be achieved solely by use of systematic matrices or scoring systems. Historic England, therefore, recommends these should be in an appendix and seen only as material to support a clearly expressed and non-technical narrative argument within the cultural heritage chapter. The EIA should use the ideas of benefit, harm and loss to set out 'what matters and why' why' in terms of the heritage assets' significance and setting, together with the effects of the development upon them.

We recommend that the visual assessments should be carried out using winter images without foliage, and also without vegetation, as this could potentially change in the future, to ensure the impact of both the main development and off-site associated development is adequately assessed.

The setting of heritage assets is not just restricted to visual impacts and other factors should be considered, in particular noise, vibration, light, odour, traffic assessments, during construction, operation and decommissioning of the main development site.





This should include traffic associated with off-site facilities, including the potential impact of traffic on designated heritage assets along the proposed access routes. Where relevant, the cultural heritage chapter should also be cross-referenced to other relevant chapters, and we advise that all supporting technical heritage information is included as appendices.

We acknowledge that it is the intention to use the same nuclear reactor technology as another power station that is currently being built in China (Section 4.3.3) and that no alternative reactor designs will be considered for the DCO EIA (4.2.12). However, we would recommend that every opportunity is taken to minimise by design the scale and massing of the proposed reactor and associated works to minimise the impact on the historic environment, especially given the very close proximity of the Chapel of St Peter on the Wall and Saxon Shore fort and Anglo-Saxon monastery at Bradwell-on-Sea. We note there is some flexibility in other key aspects of the power station's design and layout, which are applied at the site-specific level, such as the cooling water infrastructure and the positioning of the Bradwell B power station within the nominated site (4.3.4, 4.3.11-12).

We acknowledge that the cumulative impacts of the proposed development works will be examined in combination with any other proposed large-scale projects (Section 5.5) and, again, we look forward to discussing and agreeing the viewpoints in detail with the applicant in order to adequately assess the impact on the historic environment.

In addition to the works proposed and outlined in the Scoping report, it is noted in Section 3.4.40 that works to connect the power station to the transmission system will be required and these will be brought forward for consent under a separate DCO application to be made by National Grid. The cumulative impact of these potentially harmful works to the historic environment must, in our opinion, be considered in, and as part of, the current DCO application, to ensure that the full impacts of the proposed development can be adequately assessed, although it is acknowledged that this will be the detailed subject of a separate DCO application.

## **Marine**

There are four well-preserved coastal fish weirs or traps, all scheduled monuments, recorded in the intertidal zone for marine infrastructure 2km study area (NHLE nos. 1019105, 1019103, 1019581 and 10190104) (Figure 22.4) – out of only 500 in total around the entirety of England's coast. These are probably all Anglo-Saxon in date. These are extremely fragile and rare waterlogged timber structures, with high evidential value, and providing important information about the economy and social structure of the early medieval period. They will be, potentially at risk of harm from any alterations to the coastal processes caused by the proposed development.

Aspects of the project which will be subject to any deemed Marine Licence:



- cooling water tunnels located beneath the seabed extending out from the Bradwell B into the estuary to abstract and discharge cooling water via intake and outfall structures;
- two Beach Landing Facilities (BLFs) to support construction of the Bradwell B for importation of construction materials and thereafter occasional use (once every 5 years or less on average) to bring large components to the main development site by sea; and
- possible use of a pipeline for transfer of aggregate into the main development site whereby a dredging vessel would connect to a floating or sunken pipeline it is thought that material would be sourced either offshore or from land sources via a muster port.

Preliminary modelling assessment outcomes indicate that direct cooling for the power station would require two very long intake tunnels, at least 11.5km in length.

The legislation and policy relevant to historic environment are detailed in Table 22.1. In Table 22.1 (legislation and policy), in the relevant section on the UK Marine Policy Statement, reference should have been made to policy provision for the historic environment and seascapes. Reference to the Draft South East Inshore Marine Plan (2020) should also have included policy SE-SCP-1.

We note the identification of a 2km study area for a marine Desk-Based Assessment (DBA), buffered around the proposed zone for marine infrastructure as could be required by this project with consideration of effects including indirect effects arising from changes to coastal processes, as described in paragraph 22.4.4. We would recommend that the proposed study area for the marine Desk-Based Assessment is extended to 3km. This is to ensure recent significant archaeological discoveries, in particular, several timber post-alignments, along the West Mersea foreshore, are incorporated into the study area (they would otherwise lie just outside of the proposed 2km study area).

We would also recommend that the Coastal and Intertidal Zone Archaeology Network (CITiZAN) website is consulted when assessing the undesignated heritage assets within the coastal and intertidal zone (Table 2.2), as this project has identified features and remains that may be of relevance to this project (<https://www.citizan.org.uk/>). In particular, new surveys by CITiZAN along the intertidal zone off West Mersea have defined a number of previously unrecorded and well-preserved early timber structures.

We welcome the consideration of the impacts of any changes to the coastal processes on the historic environment (Table 17.4; Appendix 22A, Section 2.6), as any changes could have a negative or positive impact on the historic environment by either increasing erosion or burying archaeological remains.



We note that Table 22.5 (Off-site associated development study areas) does not include consideration of sourcing construction aggregates from offshore locations (see Table 22.4: Stage One Consultation comments, “stakeholder engagement”). No attention appears to have been given to offsite activities such as of sourcing construction aggregates from offshore locations. Therefore, the matters considered within Table 22.16 (Effects scoped out of the assessment), which appears to focus on ‘any heritage assets located outwith the site boundary’, should be clarified. It is important to establish whether this means that environmental issues (inclusive of cultural heritage) associated with sourcing construction aggregates from offshore locations will not be considered within this EIA exercise.

Section 22.57 mentions, “five HER records within the zone for marine infrastructure” But no further information appears to have been provided as part of the baseline assessment. We note that a marine DBA has yet to be undertaken (see Table 22.9: Planned further surveys and studies) with a Review of offshore and intertidal geophysical survey planned for 2021. We therefore look forward to constructive engagement with the applicant to ensure the marine DBA is produced to support corroboration with any survey work specifically commissioned for this proposed project.

Section 22.5.12 describes “...Prehistoric activity extended to within the present-day marine environment, but it is likely that further evidence of prehistoric occupation and coastal exploitation will be present within the main development site and zone for marine infrastructure.” Further potential includes archaeological materials associated with “Iron age and Roman” era as well as early medieval and medieval fish weirs which are known to exist in the area. We, therefore, confirm our advice to date that an early assessment of impacts on assets within marine and intertidal zones should feed into decision-making and be discussed with Historic England and the relevant local authority.

Paragraph 22.5.24 mentions, “The line of a WWII boom originally passed from a seawall at Bradwell across the Blackwater estuary, through the proposed marine infrastructure area, to Shinglehead Point.” The objectives for all survey activity as relevant to the marine zone should include objectives to support identification of any material remains of this boom.

In Table 22.14, we acknowledge the inclusion of “Zone for marine infrastructure” and welcome the attention given to non-designated heritage assets. It is important for the ES to assess the risk of encountering presently unknown (non-designated) heritage assets as may be found within the zone of marine infrastructure. We have yet to be presented with any information regarding the likelihood of this project encountering any crashed aircraft remains, but it should be noted that any such sites will be automatically afforded ‘protected place’ status under the Protection of Military Remains Act 1986.



In section 22.8 (Potential Mitigation), we note the attention given to Additional measures for buried archaeological remains and paleoenvironmental deposits, etc. and we hereby confirm that such mitigation measures, including any programme of archaeological recording and dissemination to mitigate any significant adverse effects during construction, is to be inclusive of any “the zone of marine infrastructure”.

Yours sincerely,

**Dr Jess Tipper MCifA FSA**

Inspector of Ancient Monuments (Essex and Hertfordshire)

Email: [Jess.Tipper@HistoricEngland.org.uk](mailto:Jess.Tipper@HistoricEngland.org.uk)

**From:** [JNCC Offshore Industries Advice](#)  
**To:** [BradwellB](#)  
**Subject:** RE: EN010111- Bradwell B new nuclear power station - EIA Scoping Notification and Consultation  
**Date:** 12 October 2020 11:17:36  
**Attachments:** [~WRD0001.jpg](#)  
[image001.jpg](#)  
[image002.jpg](#)  
[image004.gif](#)  
[image005.gif](#)  
[image006.jpg](#)  
[image007.jpg](#)  
[image008.jpg](#)

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Dear Sir/Madam

Thank you for consulting JNCC on the above application for proposed Bradwell B new nuclear power station, which we received on 09/10/2020.

JNCC statutory remit for nature conservation is in the offshore marine environment, which begins at the edge of territorial waters and extends to the UK Continental Shelf (UKCS). As this application is inshore / nearshore Natural England should provide a full response. As such JNCC have not reviewed this application and will not be providing further comment.

Please contact me with any questions regarding the above comments.

Kind regards,

**Jon Connon**

*OIA Admin Officer*

*Marine Management Team*

JNCC, Inverdee House, Baxter Street, Aberdeen, AB11 9QA

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**From:** BradwellB <[BradwellB@planninginspectorate.gov.uk](mailto:BradwellB@planninginspectorate.gov.uk)>  
**Sent:** 09 October 2020 17:28  
**Subject:** EN010111- Bradwell B new nuclear power station - EIA Scoping Notification and Consultation

Dear Sir/Madam

Please see the attached correspondence on the proposed Bradwell B new nuclear power station.

Please note that the deadline for consultation responses is 7 November 2020 and is a statutory requirement that cannot be extended.

Kind regards.

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DPC:76616c646f72



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JNCC's response to the COVID-19 outbreak is focussed on protecting our people and partners to minimise the potential for the virus to spread. All staff are working from home and we are adhering to the Government's advice on social distancing and travel restrictions. We are also working with partners to ensure that the projects we support are compliant with the latest Government guidance, including the introduction of restrictions on fieldwork. (See <https://jncc.gov.uk/our-work/surveillance-schemes/>) Our staff continue to be available for business as usual and will respond to enquiries as promptly as possible, but there may be delays. We ask for your understanding and patience at this time.

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**From:** [planning\\_appeals](#)  
**To:** [BradwellB](#)  
**Cc:** [planning\\_appeals](#)  
**Subject:** FW: EN010111- Bradwell B new nuclear power station - EIA Scoping Notification and Consultation  
**Date:** 14 October 2020 09:16:09  
**Attachments:** [image001.jpg](#)  
[image002.jpg](#)

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Morning

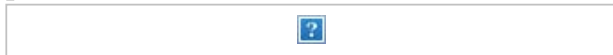
Thank you for the notification . However the council will not be issuing a reply as the department feel that it has no interest given the distance from Havering

Regards Claire

**Claire Camp | Business Support Officer  
Development & Building Control**

London Borough of Havering | Development Planning & Building Control  
Mercury House, Main Road, Romford, RM1 3BB

**t** 01708 432867  
**e** [Claire.Camp@haverling.gov.uk](mailto:Claire.Camp@haverling.gov.uk)  
**w** [www.haverling.gov.uk](http://www.haverling.gov.uk)  
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**From:** BradwellB <[BradwellB@planninginspectorate.gov.uk](mailto:BradwellB@planninginspectorate.gov.uk)>  
**Sent:** 09 October 2020 17:28  
**Subject:** EN010111- Bradwell B new nuclear power station - EIA Scoping Notification and Consultation

**CAUTION - External email**

Dear Sir/Madam

Please see the attached correspondence on the proposed Bradwell B new nuclear power station.

Please note that the deadline for consultation responses is 7 November 2020 and is a statutory requirement that cannot be extended.

Kind regards.

Alison L Down  
EIA Advisor



Environmental Services  
Direct Line: 0303 444 5039  
Helpline: 0303 444 5000  
Email: [alison.down@planninginspectorate.gov.uk](mailto:alison.down@planninginspectorate.gov.uk)

Web: <https://infrastructure.planninginspectorate.gov.uk/> (National Infrastructure Planning)

Web: [www.gov.uk/government/organisations/planning-inspectorate](http://www.gov.uk/government/organisations/planning-inspectorate) (The Planning Inspectorate)

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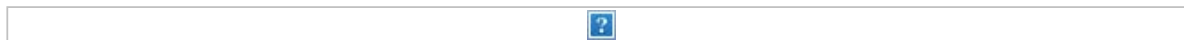


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**From:** [Andrew Smith](#)  
**To:** [BradwellB](#)  
**Subject:** RE: EN010111- Bradwell B new nuclear power station - EIA Scoping Notification and Consultation  
**Date:** 06 November 2020 09:28:50  
**Attachments:** [image001.png](#)  
[image003.jpg](#)

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Dear Marnie Woods at PINS,

Below are comments from LB of Redbridge planning and environmental health officers to the above:

1. There will need to be an offering of some of the 1,200 apprenticeships to London Borough of Redbridge residents and employment of local construction workers in your supply chain. Our Work Redbridge team can assist. Contact [Gary.Dursley@redbridge.gov.uk](mailto:Gary.Dursley@redbridge.gov.uk)
2. If there was a radioactive leak at the station, how would it impact Redbridge in terms of impact on people, homes, green space/ parks, agricultural land, air quality, rivers, water sources and groundwater?

The prevailing wind over London is south-westerly so any contaminated air could blow out towards the North Sea and deposit across the sea and Scandinavia/NE. However in other weather systems it could enter the River Thames and its tributaries including the River Roding and groundwater sources including through tidal flows.

3. Storing or treating waste onsite is potentially hazardous.
4. When moving waste there will need to be care if Crossrail railway lines are used to transport construction materials using Southminster branch line.
5. It is stated that:

*The UK nuclear regulators, the Office for Nuclear Regulation and the Environment Agency, must be satisfied that the protection against any hazards are adequate*

*... Bradwell B is being designed to withstand an extreme 1-in-10,000 severe weather event, including the anticipated effects of climate change, managing impacts of coastal erosion and fully considering the seismology of the site, including assessment of the risks and potential impacts of flooding resulting from earthquakes.*

Modelling may need to be updated/ repeated as technology improves over time.

6. Unlike fossil fuel-fired power plants, nuclear reactors do not produce air pollution or carbon dioxide while operating. However the construction of plants, uranium mining and manufacturing operations all produce CO2 emissions on a huge scale which contributes to global warming and this should be accounted for in the assessment of the benefits against other forms of energy production.
7. There are a few fission products that pollute the air being volatile fission products, non-volatile fission products, particulate dispersions of fuel materials and induced activity particulate components. The impact of any pollution potential for these pollutants which will need addressing.

Best regards

Andrew Smith, Principal Planner  
Regeneration & Culture  
London Borough of Redbridge  
11th floor, Lynton House, 255-259 High Road, Ilford, Essex IG1 1NN

Tel: 020 8708 2170

Email: [andrew.smith@redbridge.gov.uk](mailto:andrew.smith@redbridge.gov.uk)

Web: [www.redbridge.gov.uk](http://www.redbridge.gov.uk)

Twitter: @RedbridgeLive

Facebook: [www.facebook.com/redbridgelive](https://www.facebook.com/redbridgelive)

Save time, go online: [www.redbridge.gov.uk](http://www.redbridge.gov.uk)

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**From:** BradwellB [<mailto:BradwellB@planninginspectorate.gov.uk>]

**Sent:** 09 October 2020 17:28

**Subject:** EN010111- Bradwell B new nuclear power station - EIA Scoping Notification and Consultation

Dear Sir/Madam

Please see the attached correspondence on the proposed Bradwell B new nuclear power station.

Please note that the deadline for consultation responses is 7 November 2020 and is a statutory requirement that cannot be extended.

Kind regards.

Alison L Down  
EIA Advisor  
Environmental Services  
Direct Line: 0303 444 5039  
Helpline: 0303 444 5000  
Email: [alison.down@planninginspectorate.gov.uk](mailto:alison.down@planninginspectorate.gov.uk)

Web: <https://infrastructure.planninginspectorate.gov.uk/> (National Infrastructure Planning)

Web: [www.gov.uk/government/organisations/planning-inspectorate](http://www.gov.uk/government/organisations/planning-inspectorate) (The Planning Inspectorate)

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**From:** [Planning](#)  
**To:** [BradwellB](#)  
**Cc:** [Town Clerk](#)  
**Subject:** Maldon Town Council Planning Committee Response to BRB EIA Scoping Document - PIN Ref: EN01111\_000041\_201009  
**Date:** 03 November 2020 11:06:06

---

Dear Sir/Madam

Please see below, Maldon Town Council's response to BRB EIA Scoping Document - PIN Ref: EN01111\_000041\_201009:-

**Maldon Town Council Planning Committee Response to BRB EIA Scoping Document - PIN Ref: EN01111\_000041\_201009**

**October 2020**

Maldon Town Council wishes the following points to be noted by the Planning Inspector in relation to the above application:-

The proposed size of the development has surprised the Council, and as such the Planning Committee feels that in many areas, demonstrable harm would be caused during construction and operational phases which are not sufficiently able to be mitigated by the proposals contained in the study.

- The documentation that has been supplied by BRB is over 2000 pages long and is mostly a desk top study by a consultancy service with little local knowledge of the area. Due to the limited time scale given for comment since access to the documentation was made, the committee feels that it is disadvantaged and therefore unable to fully respond.
- This inhibits scrutiny of data (which due to age of some data used) causes concern In respect that we are unable to undertake a deep dive to ensure that a through process of due diligence is undertaken
- An example of the data that BRB is using is historical in content and therefore does not reflect the current status of environmental conditions ( i.e. A study on water quality was carried out in 2008/9 by SEEMS) and the Data from this outdated analysis has been used as part of the scoping document. It is well known that sea levels have also risen in the last decade.
- The biodiversity reports clearly highlight the legal status afforded to birds and wildlife. (BRB report part 3 – Appendices). This development would therefore be contradictory in law. The studies detail the plethora of wild birds and marine life that is currently abundant in the area and no amount of mitigation could reduce the loss and destruction of many habitats needed to preserve these species in the area. The RSPB has made representations and concerns that the areas denoted as SPA/Ramsar sites and how much and the proposed works would have an adverse effect on priority bird species which cannot be mitigated.
- No mention is made of the seahorses and porpoises that are confirmed to be in the area. These are again protected species under the Wildlife and Countryside Act, section 9. Short snouted sea horses are resident in the area and are highly sensitive to vibration and noise. This detail is omitted for the study by BRB.
- The commitment to deliver 50 percent of construction materials by sea in order to reduce road traffic movements is flawed. There is no defined strategy for this in the document. The increase in shipping would add to the current poor air quality omissions due to most ships operating on fossil fuels / heavy oils.
- The suitability of park and rides of the proposed construction worker park and ride sites are not evidence based. Therefore, no assessment of harm / benefit can be completed.
- GHG emissions from nuclear power stations are minimal, but emissions arise from the rest of the nuclear lifecycle. (12.6.14). The response by BRB are that these and other environmental impacts would be mitigated, but there are no detailed mitigation measures that can be robustly considered in the decision-making process.

Major accidents and emergencies (s13) have a degree of mitigation measures outlined but as the reactors have not yet had full approval from regulators, detail assessment of tangible measures can not be undertaken. This is a critical consideration.

- Decommission and long-term maintenance is not sufficiently represented in the report.

The committee considers that the document raises more questions than answers and considers that the report is limited in required detail by the desk top nature of the submission and some outdated information that has been used to inform the report.

The committee does recognise the employment and supply chain benefits associated with major capital projects but considers the substantial negative environmental and human impact associated with these plans to outweigh the perceived benefits and if allowed to proceed will cause irreparable demonstrable harm across the area.

Your faithfully

Caroline Hooper

Planning Committee Clerk

Maldon Town Council

01621 857373



# Marine Management Organisation

Marine Licensing  
Lancaster House  
Hampshire Court  
Newcastle upon Tyne  
NE4 7YH

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[www.gov.uk/mmo](http://www.gov.uk/mmo)

Marnie Woods  
The Planning Inspectorate

Your reference:  
EN010111\_000041\_201009  
Our reference:  
DCO/2018/00008

**By Email Only**

6 November 2020

Dear Ms Woods,

## **Planning Act (2008) - Development Consent Order for the Bradwell B New Nuclear Power Station - Scoping Opinion Consultation**

### **MMO Scoping Response**

On 9 October 2020, the Marine Management Organisation (the “MMO”) received notice that Bradwell B Nuclear New Build (“The Applicant”) had asked The Planning Inspectorate (“PINS”) for a scoping opinion for information to be provided in an Environmental Statement (“ES”) for the proposed nuclear newbuild ‘Bradwell B’, Essex. The MMO has prepared this response in consultation with our technical advisors at ABPmer.

This is without prejudice to any future representation the MMO may make about the Project. This is also without prejudice to any decision the MMO may make on any associated application for consent, permission, approval or any other type of authorisation submitted to the MMO either for the works in the marine area or for any other authorisation relevant to the proposed development. The MMO reserves the right to modify its present advice or opinion in view of any additional matters or information that may come to our attention.

If you require any further information, please do not hesitate to contact me using the details provided below.

Yours faithfully,  
Hope Armstrong  
Marine Licensing Case Officer  
D +44 (0)208 026 5517  
E [Hope.Armstrong@marinemanagement.org.uk](mailto:Hope.Armstrong@marinemanagement.org.uk)



## Contents

1.	The Role of the MMO .....	3
2.	The Proposed Development .....	4
3.	General comments .....	4
4.	Chapter 3: Project Description .....	5
5.	Chapter 4: Alternatives .....	6
6.	Chapter 6: Transport.....	6
7.	Chapter 7: Noise and Vibration.....	6
8.	Chapter 8: Air Quality .....	6
9.	Chapter 9: Radiological .....	7
10.	Chapter 10: Socio-economic.....	7
11.	Chapter 12: Climate Change.....	7
12.	Chapter 13: Major Accident Hazards .....	7
13.	Chapter 14: Water Environment.....	8
14.	Chapter 17: Geomorphology and Hydrodynamics .....	8
15.	Chapter 18: Water and Sediment Quality .....	11
16.	Chapter 19: Navigation .....	13
17.	Chapter 20: Landscape and Visual Amenity .....	17
18.	Chapter 21: Recreation.....	17
19.	Chapter 22: Historic Environment: Terrestrial and Marine .....	18
20.	Chapter 23 Biodiversity: Terrestrial and Freshwater Ecology and Ornithology .....	19
21.	Chapter 24: Marine Ecology and Fisheries .....	19





## 1. The Role of the MMO

The MMO was established by the Marine and Coastal Access Act, 2009 (“the 2009 Act”) to contribute to sustainable development in the marine area and to promote clean, healthy, safe, productive and biologically diverse oceans and seas.

The responsibilities of the MMO include the licensing of construction works, deposits and removals in English inshore and offshore waters and for Northern Ireland offshore waters by way of a marine licence<sup>1</sup>. Inshore waters include any area which is submerged at mean high water spring (“MHWS”) tide. They also include the waters of every estuary, river or channel where the tide flows at MHWS tide. Waters in areas which are closed permanently or intermittently by a lock or other artificial means against the regular action of the tide are included, where seawater flows into or out from the area. The MMO is an interested party for the examination of DCO applications for Nationally Significant Infrastructure Projects (“NSIPs”) in the marine area.

As a prescribed consultee under the Planning Act, 2008 (“the 2008 Act”), the MMO advises developers during pre-application on those aspects of a project that may have an impact on the marine area or those who use it. In addition to considering the impacts of any construction, deposit or removal within the marine area, this also includes assessing any risks to human health, other legitimate uses of the sea and any potential impacts on the marine environment from terrestrial works.

In the case of NSIPs, the 2008 Act enables DCO’s for projects which affect the marine environment to include provisions which deem marine licences<sup>2</sup> (“DML”). Where a marine licence is deemed within a DCO, the MMO is the delivery body responsible for post-consent monitoring, variation, enforcement and revocation of provisions relating to the marine environment. As such, the MMO has a keen interest in ensuring that provisions drafted in a DML enable the MMO to fulfil these obligations.

Alternatively, developers can look to have the marine elements of NSIP’s consented via a marine licence under Part 4 of the 2009 Act. The MMO is the Licensing Authority for the purpose of Part 4 of the 2009 Act, and is also responsible for post-consent monitoring, variation, enforcement and revocation of provisions relating to the marine environment. Where a marine licence is sought under Part 4 of the 2009 Act for an NSIP, the MMO will engage with PINS throughout the DCO process to ensure that NSIPs are considered in their entirety, and do not conflict with any licence issued under Part 4 of the 2009 Act.

The MMO is responsible for post-consent monitoring, variation, enforcement and revocation of provisions relating to the marine environment of consents issued under both Acts. Further information on licensable activities can be found on the MMO’s website<sup>3</sup>. Further information on the interaction between the Planning Inspectorate and the MMO can be found in our joint advice note<sup>4</sup>.

<sup>1</sup> Under Part 4 of the 2009 Act <http://www.legislation.gov.uk/ukpga/2009/23/contents>

<sup>2</sup> Section 149A of the 2008 Act

<sup>3</sup> <https://www.gov.uk/topic/planning-development/marine-licences>

<sup>4</sup> <https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/2013/04/Advice-note-11-v2.pdf>



This document details the review by MMO of relevant EIA Scoping Chapters and supporting appendices, particularly including:

- 17. Coastal Geomorphology and Hydrodynamics
- 18. Marine Water Quality and Sediments
- 19. Navigation
- 22. Historic Environment: Terrestrial and Marine
- 24. Marine Ecology and Fisheries

We have also briefly reviewed the following chapters for any relevant marine elements: chapters 1,3, 4, 6, 7, 8, 9, 10, 12, 13, 15, 20, 21, 23 and 25.

## 2. The Proposed Development

The proposed Bradwell B development, henceforth known as “the Project”, will be located near Bradwell-on-sea, Essex. The proposed development site is adjacent to the Bradwell A nuclear power station site and includes areas of arable land, freshwater grazing marsh, and existing flood defences. The MMO understands that the Project will comprise a nuclear power station formed of two UK HPR1000 nuclear reactors, together with associated infrastructure and development required by the project.

The MMO has an interest in this project because the development will require construction and removal activities below Mean High water Springs (MHWS) to facilitate the delivery of materials; and intake and outfall pipes to support the safe functioning of the power plant.

## 3. General comments

### Observations

- 3.1. The MMO has previously provided comments on draft copies of chapters 17,18,19 and 24 directly to the Project prior to submission to PINS. The MMO note that many of the specific points raised previously have been addressed. The main outstanding comments are detailed in response to each relevant chapter. Where chapters are not relevant to the MMO’s remit, comments have not been provided.
- 3.2. The Project Description only provides a high-level overview of the general location of the various elements of the works within the Blackwater Estuary and no indication of the likely scale of interaction with the marine environment. It is not reasonable to expect a greater level of detail to be available at this stage of the Project, but it does mean that there necessarily needs to be an element of caution in scoping out potential impact pathways at this stage.
- 3.3. The construction of these works will require excavation/dredging in the marine environment, therefore potentially giving rise to a disposal requirement, and therefore potential effects at dredge disposal grounds. This will need to be considered within the assessment, including any interactions between the component works.



3.4. While the project description does not identify any requirement for navigation dredging to provide suitable navigable access into the Blackwater Estuary, the MMO ask that this is confirmed.

3.5. The MMO does not have any comments on the proposed structure of the ES.

### Recommendations

3.6. It is currently unclear to what extent marine aggregates might be used in construction and where these might come from. If they are to be sourced, other than from existing licensed marine aggregate sites, this should also be considered in the assessment.

3.7. The Project infers the assessment will be undertaken in accordance with the realistic maximum adverse scenario(s) (worst-case) which is considered appropriate at this stage. This approach follows the principles set out in the Planning Inspectorate Advice Note Nine: Rochdale Envelope and is consistent with the objectives of the Environmental Impact Assessment (EIA) Directive and EIA Regulations. Whilst the infrastructure components are identified, their location and maximum size, or amounts of excavation work etc are not indicated. In the absence of such information, it is not possible to scope out any potential effects.

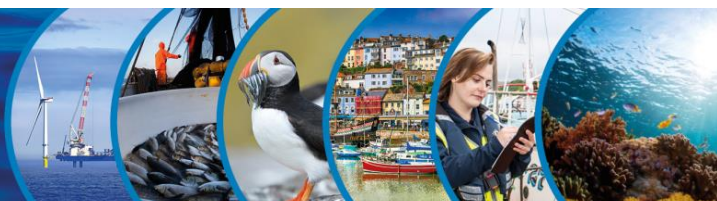
## 4. Chapter 3: Project Description

### Observations

4.1. Chapter 3 provides a high-level description of the project. At this stage there is, as might be expected, limited information on design (for example, the design and precise locations of marine infrastructure, the design of cooling water infrastructure and the Fish Recovery and Return System) or, construction methods (dredging or piling methods, frequency, duration or intensity of activity). Operational parameters are also unclear, for example, flow rates and composition of aquatic discharges.

4.2. In order to provide the necessary flexibility in the development of the project design and methodology, Section 3.1.5 to 3.1.8 states that the EIA will be based on a 'Design Envelope' and an assessment of worst-case scenario(s) which is considered appropriate at this stage. This approach follows the principles set out in the Planning Inspectorate Advice Note Nine: Rochdale Envelope and is consistent with the objectives of the EIA Directive and EIA Regulations.

4.3. Section 3.6.2 notes that '*BRB has not yet identified preferred sites for Off-Site Associated Development*'. Section 3.6.2 further notes that '*The ES for the DCO application would be carried out on defined sites and works, with appropriate parameters using the Rochdale Envelope*'. As such, this scoping advice is based on the project description included in the scoping report and that the advice may change once project details are clarified.





## Recommendations

4.4. Section 3.4.3 outlines considerations relating to water supply to the power station. The ES should include consideration of waterbodies or protected areas under the Water Framework Directive (WFD). The MMO defer to the Environment Agency (EA) for further comment.

## 5. Chapter 4: Alternatives

### Recommendations

5.1. The MMO understand that the power station is intended to be cooled using in-direct cooling and note that this has been assessed over direct cooling methods as a more environmentally sound option (section 4.3.10). The MMO note a lack of options with respect to in-direct cooling and advise further consideration is given in the ES. It is not sufficient to state that one method is less damaging than another and is therefore acceptable.

## 6. Chapter 6: Transport

### Observations

- 6.1. This chapter covers road and rail transport and the implications of marine freight on the road network such as the use of muster ports and transport of freight from these to site using Heavy Goods Vehicles (“HGVs”). There are no specific issues relevant to the marine environment. Navigation is addressed in chapter 19, please see the MMO’s comments on this chapter in section 16 of this response.
- 6.2. MMO note that the marine transport options are significantly less advanced than the terrestrial documents. MMO would expect there to be a more consistent level of detail across the two areas at this stage.

## 7. Chapter 7: Noise and Vibration

### Observations

7.1. This chapter primarily focuses on human receptors, noting that ecological impacts are considered in Chapter 23 Biodiversity: Terrestrial and Freshwater Ecology and Ornithology. The MMO have no specific comments from a marine perspective.

## 8. Chapter 8: Air Quality

### Observations

- 8.1. This chapter focuses on impacts to air quality and consequential effects for humans and ecological receptors, including marine receptors.
- 8.2. The Project is proposing to scope out potential impacts of the project on the marine and intertidal ecological receptors in terms of eutrophication and ocean acidification on the basis that there will be an overall reduction in nitrogen loss and Ammonia



(NH<sub>3</sub>) emissions in the same area (section 8.7.8). This is based on assumptions about agricultural use of fertilisers on 200 hectares of existing agricultural land on which the development will be built (Appendix 8C). While there are some uncertainties surrounding these assumptions, the overall evidence suggesting a reduction in nitrogen loss and NH<sub>3</sub> emissions is reasonable. The MMO therefore support the scoping out potential impacts of the project on the marine and intertidal ecological receptors, on the assumption that this is reflected in the data that has not currently been provided.

## 9. Chapter 9: Radiological

### Observations

9.1. The chapter includes proposed surveys, assessment methods and scope of assessment, including for the marine environment. The MMO do not currently have comments on the chapter.

## 10. Chapter 10: Socio-economic

### Recommendations

10.1. Table 10.2 should reference the Marine Policy Statement and draft South East Marine Plan and relevant policies therein.

10.2. The assessment should have regard to Marine Policy Statement and marine plan policies and the impact of the development and operation of the power station on marine-dependent businesses.

## 11. Chapter 12: Climate Change

### Observations

11.1. This chapter includes methodology and broad scope of assessment in relation to climate change impacts. Tables 12.1 and 12.2 should also reference the Marine Policy Statement. At present the MMO has no other specific comments on the chapter which appears suitably comprehensive.

## 12. Chapter 13: Major Accident Hazards

### Recommendations

12.1. Section 13.5.9 – The MMO advise the list of marine receptors must include those Special Protection Area (SPA), Special Area of Conservation (SAC), Ramsar and Sites of Special Scientific Interest (“SSSI”) which include intertidal and/or subtidal areas in the marine environment.

12.2. Section 13.5.35 – it is unclear why the Project is seeking to limit the assessment to ‘*only the most sensitive receptors will be identified: namely centres of population, and internationally designated sites*’. It would seem more appropriate to apply the recognised Chemicals and Downstream Oil Industry Forum (CDOIF) methodology.



Indeed, paragraphs 13.6.25 suggest that the CDOIF methodology will in fact be applied. The MMO recommend that for the avoidance of doubt, section 13.5.35 should clarify that the CDOIF methodology will be followed.

### 13. Chapter 14: Water Environment

#### Observations

13.1. This chapter is focused on groundwaters and fresh surface waters. It is only tangentially relevant to the marine environment with passing reference to transitional and coastal water bodies. Currently the MMO has no comments on the chapter from a transitional and coastal waters perspective.

### 14. Chapter 17: Geomorphology and Hydrodynamics

#### Observations

14.1. The main outstanding comments in this chapter relate to a lack of information concerning dredging and disposal and a lack of detail about the hydrodynamic and sediment modelling. The MMO recognise that discussions on the modelling tools have been held with EA.

14.2. The Project Description only provides a high-level overview of the general location of the various elements of the works within the Blackwater Estuary and no indication of the likely scale of interaction with the marine environment.

14.3. The project description does not identify any requirement for navigation dredging to provide suitable navigable access into the Blackwater Estuary.

14.4. Chapter 17 of the draft Scoping Report provides the evidence that is proposed to be used for the assessment. This tabulates the UK legislation and Policy and relevant technical guidance that needs to be considered for the marine environment with respect to coastal geomorphology and hydrodynamics. This is considered comprehensive and covers all the features/receptors that would need to be assessed.

14.5. Section 3.1 infers the assessment will be undertaken in accordance with the Rochdale Envelope. This requires the assessment to be undertaken to a Design Envelope which has design parameters to assess the realistic maximum adverse impact scenarios, hence the realistic worst case. Whilst the infrastructure components are identified, their location and maximum size, or amounts of excavation work etc are not indicated. In the absence of such information, it is not possible to scope out any potential effects.

14.6. The assessment has used historical desk-based data and previous development work along with bathymetric studies and cross disciplinary studies for the purpose of scoping. The scoping study provides a commitment to undertake a full range of physical surveys and modelling for the Preliminary Environmental Impact Report ("PEIR") and ES, which would provide the detailed baseline for assessment of the full range of coastal geomorphology and hydrodynamic effects. There is a lack of detail



about these surveys but previous discussions around survey plans would suggest that the data collected should be adequate.

- 14.7. The EIA methodology is considered to be broadly appropriate.
- 14.8. The proposed approach for evidence gathering is generally considered appropriate. Limited detail is provided in the scoping report concerning the metocean surveys, marine water and sediment quality sampling and hydrodynamic and sediment modelling. Previous discussions on the scope of the surveys and modelling approach suggest that the evidence being collected should be appropriate for informing the assessment.
- 14.9. The evidence being proposed to be submitted and assessed is consistent with other similar operations, providing the possible gaps identified in the recommendation sections of this response are addressed.
- 14.10. Surveys and modelling are planned for completion in 2020 and 2021. Limited information is provided on the scope of the modelling. An initial modelling strategy has been agreed with the EA. The models used to inform the water quality assessment will be subject to specific EA approval processes. It would be expected that the Project will provide the MMO with modelling methodologies along with subsequent calibration and validation reports for all hydrodynamic and sediment transport models used to inform the assessments.
- 14.11. No information is provided on the potential transboundary effects. The potential for transboundary effects arising from changes to the hydrodynamics and coastal geomorphology, however, is considered unlikely.

### Recommendations

- 14.12. In operation, water will be extracted from the marine environment and then returned at a different location at higher temperature and salinity and possibly containing contaminants. These may have the potential to affect the hydrodynamics and sedimentary regime of the estuary depending on the volumes involved, along with the obstruction effects of the individual facilities. The intakes will draw in suspended sediment which is noted would either be returned to sea via the cooling outfall or taken off site for re-use or disposal. Assessment of the effects on the sediment budget would be required.
- 14.13. In general, the study area is well defined for the development effects within the estuary, although greater detail on the sediments would be helpful with respect to the actual development location. Also, the relationship of the location of the component works with the bathymetry and morphological features will be required for assessment purposes going forward.
- 14.14. Construction effects (sediment plumes, hydrodynamic obstruction etc) are likely to extend into the North Sea and southward along the Dengie mudflats and sediment disturbed from the Beach Landing Facilities (BLF's) and the plumes from the operation of the outfalls may pass over an extended area of the mudflats. As highlighted above, the development is likely to require dredging and disposal





activities and the study area will need to be extended to assess potential new disposal sites or marine extraction areas.

14.15. Marine works on sandbanks has been scoped out. The MMO believe there is insufficient evidence at this time for this to be scoped out. This is particularly the case as effects of disposal of dredge material have not been considered. There are also uncertainties concerning use of marine aggregates and their source. These elements should be considered further when the methodology and location of works is more clearly defined. The MMO agree with the assessment of the likely significant effects from the various works at this stage and further data and assessment is required. The MMO however believe a number of potential receptors have not been considered for a Rochdale Envelope assessment. These effects include:

- Effects at a potential marine aggregate extraction site, particularly if this is a new extraction area;
- Marine disposal of dredge material (away from the site) for both capital material during construction and maintenance during operation; and
- Effects stemming from any requirement for navigation dredging to provide safe navigable access into/out of the Blackwater Estuary.

Within Table 17.17 the following should also be included:

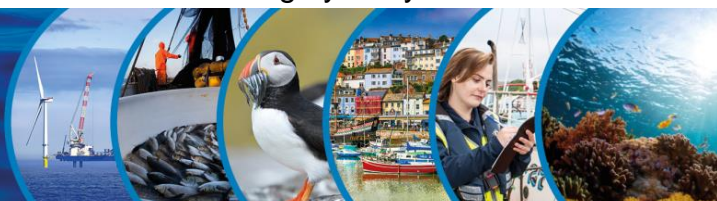
- Construction activities - marine intakes and outfalls: should include changes to flows, disturbance of the seabed, suspended sediment, and sedimentation. Note typos in table.
- Effects of marine extraction and disposal sites, if ultimately required. These would cause direct seabed effects at the site and the possibility of coastal effects, possibly due to the change in wave patterns, as well as dispersion plumes.

14.16. The current baseline study covers the main physical processes at work in the estuary, being based on historical data of different types from a number of sources along with a recent bathymetric survey, providing a high-level review of the current state of the estuary.

14.17. Greater detail on the bathymetry and hydrodynamic flow and sediment regime is required at, and around, the location of the various development works, (e.g. intakes and outfalls etc). The proposed surveys (with the correct specification) should provide the appropriate information for the PEIR and ES but this detail is not available in the scoping assessment.

14.18. There are no details on the hydrodynamic and sediment modelling which will be a key component of the assessment. Review of the modelling methodologies will be required when available.

14.19. The method proposed will provide a good overall assessment of both types of effect, providing the survey and modelling work are undertaken to determine the effects of each individual works (e.g. Intake, outfall etc) and providing that all relevant elements of the project are included (e.g. dredge disposal, marine aggregate extraction, possible navigation dredging as appropriate). This is required both during construction and operation for effects on the existing hydrodynamic





and sedimentary regime and then interpreting the changes to the coastal geomorphology both current day and with climate change conditions in the future. Consideration of the extents, magnitudes, timing and 'overlap,' of these effects is required and then further consideration of potential interaction with other third-party likely developments. Given this assessment methodology it is likely that there will be an adequate description of the effects within the PEIR and ES.

## 15. Chapter 18: Water and Sediment Quality

### Observations

- 15.1. The MMO note that many of the specific points raised previously on this topic have been addressed, such as increased reference to nearby bathing waters and shellfish water protected areas. Most of the remaining comments relate to uncertainties surrounding the project design and details of construction methods and the limited information provided on assessment methods.
- 15.2. Section 18.1.1 defines, with respect to marine water quality and sediments, '*the scope of assessment as it relates to the main development site, project-provided worker accommodation (which has the potential to be in close proximity to the main development site) and the zone for marine infrastructure*'. Section 18.7.36 states '*Potential marine water quality effects associated with potential project-provided accommodation in close proximity to the main development site are considered under the main development site construction effects. Associated development (off-site highways works, park and ride facilities, freight management facilities) and off-site Power Station Facilities are scoped out of the assessment as they are remote from the marine environment*'. Based on the strategic routes and search areas for the off-site highways works, park and ride facilities and freight management facilities, it is acknowledged that potential impacts to marine water quality and sediments are unlikely. The location of off-site Power Station Facilities is not provided.
- 15.3. A summary baseline is presented in section 18.5 of chapter 18. Table 18.6 provides a high-level summary of planned surveys and studies for marine water quality and sediments. Broadly, the evidence and proposed studies appear to be appropriate, although it is not possible to confirm this in the absence of more detailed information on project design, construction and operation.
- 15.4. The data sources identified, including proposed survey work, are considered to be appropriate.
- 15.5. The overall methodological framework for assessing the significance of potential impacts to marine water quality and sediments is appropriate.
- 15.6. It is noted that Section 18.7.37 states '*there are no effects that are to be scoped out of the assessment at this stage, pending outcome of modelling to determine the Zol [Zone of Influence], receptor specific characterisation reports and further stakeholder consultation*'. This is considered appropriate given the uncertainties concerning project design, construction and operation at this stage.



- 15.7. The range of physical and chemical analysis proposed to inform sediment quality appears reasonable, although this would need to be confirmed through a formal sample plan request.
- 15.8. The evidence being proposed to be submitted and assessed is consistent with other similar operations (Nuclear New Build (NNB) projects).
- 15.9. Table 18.6 suggests hydrodynamic (thermal-saline and chemical) and sediment transport models are planned to be completed to inform the assessment. It is anticipated that the models will be subject to calibration and validation processes which will provide assurances on model accuracy. It is also assumed that any proposed modelling approaches will require approval from the EA.
- 15.10. The overarching approach to the cumulative effects assessment (CEA) is described in Chapter 5, while Section 18.6.84 to 18.6.89 set out the approach to assess in-combination and cumulative effects with regards to marine water quality and sediments. This approach is considered appropriate.

### Recommendations

- 15.11. As noted in Section 3.4 of this response, while the project description does not identify any requirement for navigation dredging to provide suitable navigable access into the Blackwater Estuary, this should be confirmed.
- 15.12. As noted in Section 3.5 of this response, it is currently unclear to what extent marine aggregates might be used in construction and where these might come from. If they are to be sourced, other than from existing licensed marine aggregate sites, this should also be taken into account in the assessment.
- 15.13. Identifying specific receptors, such as bathing waters, shellfish water protected areas, Marine Protected Areas (MPAs) and Water Framework Directive (WFD) water bodies, as part of the impact pathway process might be beneficial. For example, in Table 18.22, it is noted that '*Introduction of microbial pathogens from treated sewage*' has been included; however, specific consideration could be provided to the potential impacts of microbial pathogens on bathing waters and shellfish water protected areas as opposed to consistent reference to '*Marine water quality effects - marine environment*' (Potential Receptor).
- 15.14. Section 18.7.10 notes the '*project has the potential to affect bathing waters as defined under the Urban Waste Water Treatment Directive (91/271/EEC)*'; however, this should primarily reflect the Revised Bathing Waters Directive (2006/113/EC).
- 15.15. A clear distinction should be made between Shellfish Water Protected Areas, as listed under the Water Environment (WFD) (England and Wales) (Amendment) Regulations 2016, and bivalve mollusc production areas/classification zones which are designated annually by the Food Standards Agency. On occasions, these appear to be referenced interchangeably as shellfish waters.



- 15.16. Table 18.6 notes a hydrazine decay study was completed in early 2020, whereby seawater collected at Bradwell were used to derive the demand and decay rates. It would be useful to know if this study examined the effect of temperature and/or salinity. Similarly, Section 18.5.21 notes *‘following treatment, some residual hydrazine present in wastewater from primary and secondary circuits is likely to be discharged. Dosing studies using seawater samples from the Blackwater Estuary will be conducted to assess the effect of natural background water quality parameters upon hydrazine degradation rate’*. It would be useful to incorporate salinity and temperature variability and biological activity as part of the assessment.
- 15.17. Periodic water quality sampling is understood to be underway at six locations. Table 18.6 notes the collection of water samples at surface and near bed levels for chemical analysis. However, it is not clear whether samples will be taken at different states of tide. The MMO recommend that this is clarified.
- 15.18. There is no information provided on the potential for transboundary impacts; however, this is unlikely to be a significant issue with regards to marine water quality and sediments. This should be confirmed as part of the PEIR and ES.
- 15.19. Text from (the now removed) Appendix 5A has been incorporated within this Chapter to improve clarity. However, this transfer has resulted in a few minor errors in presentation (e.g. introductory text included in first bullet point of Section 18.6.72). The MMO recommend that these errors are amended.

## 16. Chapter 19: Navigation

### Observations

- 16.1. A very high-level description of the project is provided. At this stage there is limited information on detailed design, construction methods or operational parameters. As it is not possible to identify vessel type or number at this stage, this creates a need to include all possible outcomes within the Navigation Scoping Chapter. Once the construction method is known, the scale of hazard descriptions can be reduced.
- 16.2. The Navigation Scoping Chapter in section 19.5 ‘Planned further surveys and studies’ states that: *“marine traffic surveys will be undertaken to record vessel movements (winter 2020 and summer 2021) in the navigational study area (see Section 19.4). These surveys will entail either AIS surveys or combined AIS and radar surveys, subject to consultation and agreement with the MCA [Maritime and Coastguard Agency]”*. This is wholly acceptable and within the normal expectation for a development of this type. Given the relatively large proportion of recreational and fishing vessels, radar survey combined with AIS will provide the best quality data. Inclusion of summer and winter survey periods is a best practice approach.
- 16.3. The MMO understands that the MCA provides guidance for Offshore Renewable Energy Installations (OREIs) - Guidance on UK Navigational Practice, Safety and Emergency Response in their Marine Guidance Note (MGN) MGN 543. This document is referenced in the Navigation Scoping Chapter table 19.2. The MGN 543 requires 28 days of survey data is collected taking into account seasonal variations, this means that the survey is split into two 14-day periods with one in





peak summer conditions and one in peak winter conditions. The survey requires that data is collected continuously over the period through Automatic Identification System (AIS) receiver, Radar and by visual means. This ensures that all vessel types found in an area are included in the collected data. Whilst the proposed development is not an OREI, if the data collected is to the same standard, this provides a higher degree of certainty regarding baseline data for the NRA.

- 16.4. The Navigation Scoping Chapter in section 19.5 '*Current baseline – main development site*' summarises vessel traffic receptors. The text and assumptions are sound given the current information available; this situation can only be updated with site-specific vessel traffic survey information.
- 16.5. The Navigation Scoping Chapter does not identify accident or incident data. It would be typical to collect and analyse this data within the navigational baseline to inform the NRA. Incident analysis should pool together local SHA records, Marine Accident Investigation Branch (MAIB) and Royal National Lifeboat Institute (RNLI) current and historic data.
- 16.6. The Navigation Scoping Chapter does not reference the Royal Yachting Association (RYA) UK Coastal Atlas of Recreational Boating (RYA, 2016)<sup>5</sup>. The Coastal Atlas dataset is commercially available to developers as a digital download, under a licence fee agreement.
- 16.7. The Navigation Scoping Chapter in section 19.4 'Study Area' states that: "*The study area is defined as a 12 nautical mile (nm) radius around the Main Development Site*". This distance may be reasonable depending on the location of any dredge material disposal site. In addition: "*If the study area changes, data collection will also be reviewed, updated and discussed with relevant stakeholders*". This is a reasonable assumption.
- 16.8. The process outlined in Section 19.6 for the NRA is typical for this type of assessment work.
- 16.9. The Navigation Scoping Chapter in section 19.6 states: "*There are no effects that are to be scoped out of the assessment at this stage, pending outcome of the studies and assessments.*" This statement is considered appropriate.
- 16.10. The Navigation Scoping Chapter does not comment on cumulative or inter-related impacts. It is expected that this will be addressed as part of the PIER and ES.
- 16.11. It is noted that vessel frequency/density information obtained from monitoring surveys will be used. The design of the monitoring surveys has adopted a standard approach.
- 16.12. The evidence proposed for collection is broadly consistent with that collected for other NNB projects.

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RYA, 2016. UK Coastal Atlas of Recreational Boating. <https://www.rya.org.uk/knowledge-advice/planning-environment/Pages/uk-coastal-atlas-of-recreational-boating.aspx>



- 16.13. There is no information provided on the potential for transboundary impacts. However, this is unlikely to be an issue with regard to navigation receptors.

### Recommendations

- 16.14. The MMO note that points regarding legislation and guidance raised previously on this topic have been addressed. There is still a lack of expected information and commentary on local features as part of the baseline conditions. Key data such as Statutory Harbour Authority boundaries, charted navigational features and accident/incident reports has not been identified. These data sources would be necessary to sufficiently carry out the proposed Navigational Risk Assessments (NRA) and subsequent EIA.
- 16.15. The construction works will require excavation/dredging in the marine environment. This material will potentially require transportation to a disposal site. The transit of any vessels from the extraction site to the disposal site (depending on the site which is identified to receive the material) will need including in the navigational assessments. This may extend the study area boundary outside of the defined area suggested in the Navigation Scoping Document.
- 16.16. The document provides an overview of the relevant legislation and guidance for the project. There is however further local policy which may apply, depending whether any part of the study area falls within a Statutory Harbour Authority (SHA) area.

Within the UK, the majority of port operations are administered by a SHA. Every SHA is self-governed with a specific Act or Order. Whilst the Navigation Scoping Document in section 19.5 'Current Baseline' summarises the ports, harbours and marinas within the proposed study area boundary, there is no representation of SHA limits, jurisdictions or boundary maps. This understanding is fundamental to identifying how navigational risk is (and may be) managed. The boundary and distance to existing SHA's should be mapped.

It is not clear from the Navigation Scoping Chapter if the project includes the creation of a new SHA around the marine works. If a new SHA is proposed, then a Harbour Empowerment Order (HEO) would be required. Underpinning the powers of a SHA is a range of national legislation providing the Harbour Master with powers to issue directions to ensure navigation and safety within the harbour limits. The Navigation Scoping Chapter does not address the topic of Harbour Authority powers, which is a fundamental risk control for marine safety. It is noted that previous power station developments with a marine/shipping component have established a Harbour Authority (through a HEO). Examples include Hinkley Point C ("HPC") in Somerset and the proposed Wylfa Newydd Nuclear Power Station in Anglesey.

There is no mention of Competent Harbour Authority (CHA) status under the Pilotage Act 1987, either within or close to the study boundary. CHA status would indicate that vessels may need to take a pilot which could be used as risk mitigation for vessels navigating in unfamiliar waters.

If the Project is considering applying for a HEO, the MMO recommend contacting



the MMO harbour orders team as soon as possible. The MMO have previously highlighted to the Project that this is often a lengthy process.

- 16.17. The Navigation Scoping Chapter in section 19.5 'Future baseline' comments: "*The effects of operational impacts on navigation receptors would be considered against current baselines, but the operational design life of the Project means that some impacts must be considered in relation to potential shifts in future baselines due to climate change (i.e. sea temperature rises, changes in hydrodynamics and storminess, and sea level rise) and change in usage. Climate changes could alter existing navigational routes and marine usage could change for example following future coastal infrastructure expansions, which in turn increases navigational usage in the study area*". Coastal infrastructure expansion, and more importantly, developments, have the potential to change the future vessel traffic baseline. It is unlikely that long-term influencing factors (for example, climate change) will affect vessel traffic within the scope of the development works addressed by the NRA. Changes to vessel traffic over the lifetime of the development works should be considered with respect to known or planned developments with the potential to affect vessel traffic levels
- 16.18. The Navigation Scoping Chapter Table 19.12 summarises '*Likely significant navigation construction effects associated with the Main Development Site*'. The following topics are not covered but should be considered:
- Man-over-Board (MoB) from construction site craft/works.
  - Payload causing vessel instability and/or lifting operation failure for marine plant.
  - Marine pollution resulting from vessels incident, plant malfunction or equipment failure.
- 16.19. The Navigation Scoping Chapter Table 19.13 summarises '*Likely significant navigation operation effects associated with the Main Development Site*'. The following topics are not covered but should be considered:
- Man-over-Board (MoB) during self-mooring operations.
  - Breakout or loss of vessel from mooring location.
  - Payload causing vessel instability and/or lifting operation failure during loading/unloading operations.
  - Marine pollution resulting from vessels incident, plant malfunction or equipment failure.
- 16.20. The average weekly transit density passed the proposed development site is 5 to 20 transits, taken from the MMO published AIS dataset for 2017 (ABPmer, 2020)<sup>6</sup>. Available AIS sources identify that fishing vessel, recreational vessel, passenger services and port service craft transit through and close to the development site. BRB\_EIA, Figure 19.2, provides a scale which has a banding of 1-100, 101-300 (etc). The figure banding is too coarse to allow traffic patterns to be discerned. Due to the scaling, the Figure would suggest vessel traffic is evenly distributed across the study area, which is not the case. In addition, the time period for AIS data presented in Figure 19.2 is not defined. There are two AIS data sources

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ABPmer, 2020. 'Maritime 2017 AIS Data' (MMO AIS data supplied by the Maritime and Coastguard Agency (MCA) processed via methodology contained in MMO project 1066, 'Mapping UK Shipping Density and Routes from AIS'). <http://abpmer.maps.arcgis.com/apps/webappviewer/index.html?id=30a2cde1b2914b26978f608eff806fbb>





referenced in Table 19.5. It is unclear which dataset has been used for analysis and creation of Figure 19.2.

- 16.21. Navigational features (buoyage, anchorages, reporting areas, vessel traffic management measures etc) would typically be collated from United Kingdom Hydrographic Office (UKHO) Admiralty Chart and sailing directions. This is not stated. A summary of navigable routes, depths, bathymetric features and buoyage should be included as part of the collation process for 'navigational features'. This aspect is not commented upon.
- 16.22. The methodology is a standard approach, including both construction and operational considerations. It is standard practice to use a method based on MCA's MGN 543; the International maritime Organization (IMO) Formal Safety Assessment and the UK Port Marine Safety Code. The UK Port Marine Safety Code is not referenced in the Navigation Scoping Chapter Table 19.2, the MMO recommend this is included.
- 16.23. As a minimum, AIS data should confirm recording and analysis of both 'Class A' and 'Class B' AIS data (where AIS-A is carried by international voyaging ships with C(GT) of 300 or more tonnes, and all passenger ships regardless of size; AIS-B is carried by smaller vessels and is aimed at smaller commercial craft, the fishing sector and recreational vessel users).

## 17. Chapter 20: Landscape and Visual Amenity

### Recommendations

- 17.1. The chapter includes proposed surveys, assessment methods and scope of assessment for landscape and visual amenity including for the marine environment. The approach follows existing guidance and is considered appropriate. Table 20.1 might usefully reference the draft South East Marine Plan and relevant policies.

## 18. Chapter 21: Recreation

### Recommendations

- 18.1. Table 21.1 should reference the Marine Policy Statement and draft South East Marine Plan and relevant policies therein.
- 18.2. Appendix 21A – scope of recreation surveys (Section 2.1.5). These should also be designed to capture other users such as watersports, recreational angling, bait collecting.
- 18.3. Table 21.9 insufficiently recognises the range of marine recreational interests likely to be present and subject to potential effects.
- 18.4. Table 21.10 insufficiently recognises the likely significant effects of construction on the range of marine recreational users using the study area. This should encompass the full range of marine recreational interests.



18.5. Table 21.11 insufficiently recognises the likely significant effects of operation on the range of marine recreational users using the study area. This should encompass the full range of marine recreational interests.

## 19. Chapter 22: Historic Environment: Terrestrial and Marine

### Observations

- 19.1. While the project description does not identify any requirement for navigation dredging to provide suitable navigable access into the Blackwater Estuary, this should be confirmed.
- 19.2. It is currently unclear to what extent marine aggregates might be used in construction and where these might come from. If they are to be sourced, other than from existing licensed marine aggregate sites, this should also be taken into account in the assessment.
- 19.3. The proposed evidence for the marine assessment is considered to be appropriate. The data sources are considered to be appropriate for the marine environment. The proposed marine surveys are considered to be appropriate.
- 19.4. The overall methodological framework for assessing the significance of potential marine impacts is appropriate. However, there is a lack of detail concerning how impacts might be quantified. It is presumed that it will be a desk-based assessment.
- 19.5. No specific methodology for cumulative and in-combination impacts is provided. Section 5.5 provides a generic project methodology. This is considered adequate for the purposes of the assessment.
- 19.6. The general approach to assessing transboundary impacts is set out in section 5.5.11 and references PINS Advice Note Twelve: Transboundary Impacts and Process. This is considered sufficient for scoping stage.
- 19.7. No specific information gaps have been identified in this chapter for the marine environment.

### Recommendations

- 19.8. Table 22.1 acknowledges the Marine Policy Statement but could usefully draw out some of the key policy guidance relating to the marine historic environment.
- 19.9. Table 22.1 The Code of Practice for Seabed Developers was updated in 2006. Marine Aggregate Dredging and the Historic Environment (2003) produced by BMPA and English Heritage is also relevant to dredging activities <https://historicengland.org.uk/images-books/publications/marine-aggregate-dredging-and-the-historic-environment-2003/marineaggregatedredging200320050315143759/>.





19.10. Table 22.16 scopes out 'Adverse direct effects on heritage assets outwith the site boundary'. The MMO advise this is amended to '...outside the site boundary or zone for marine infrastructure'.

## 20. Chapter 23 Biodiversity: Terrestrial and Freshwater Ecology and Ornithology

### Observations

20.1. This chapter considers potential effects to terrestrial, freshwater and ornithological receptors. It is relevant to the consideration of waterbirds and seabirds and to saltmarsh.

20.2. Table 23.5 terrestrial (non-breeding) bird surveys refers to the study area for brent geese. The MMO defer comments to Natural England (NE) for the suitability of the brent geese survey design.

### Recommendations

20.3. Table 23.1 and Appendix 23C should reference the Marine Policy Statement and draft South East Marine Plan and relevant policies therein.

20.4. Table 23.2 might usefully reference the following source relevant to wading birds - Cutts, N., A. Phelps, and D. Burdon. 2009. "Construction and Waterfowl: Defining Sensitivity, Response, Impacts and Guidance, Report to Humber INCA." ZBB710-F-2009. Institute of Estuarine and Coastal Studies University of Hull.

20.5. Annex 23A -s2.12.18 – it is unclear why the flight path survey is limited to sector 2. Consideration should also be given to monitoring flight paths for birds in sector 3 which is also adjacent to the main development site.

20.6. Given the species of wetland birds observed using the fields, consideration should be given to the commissioning of radio/satellite tracking to understand site fidelity for species such as lapwing, golden plover and curlew.

## 21. Chapter 24: Marine Ecology and Fisheries

### Observations

21.1. The MMO note that many of the specific points raised previously on this topic have been addressed. Most of the remaining comments relate to uncertainties surrounding the project design and details of construction methods and the limited information provided on assessment methods.

21.2. Paragraph 24.7.11 of the Marine Ecology and Fisheries Topic chapter indicates that no effects have been scoped out of the assessment at this stage. The MMO support this precautionary approach.

21.3. Chapter 3 (Project Description) provides a high-level description of the project. At this stage there is, as might be expected, limited information on design (for example, the design and precise locations of marine infrastructure, the design of cooling water



infrastructure and the Fish Recovery and Return System) or, construction methods (dredging or piling methods, frequency, duration or intensity of activity). Operational parameters are also unclear, for example, flow rates and composition of aquatic discharges.

21.4. A summary baseline is presented in section 24.5 of the Topic chapter. Table 24.6 provides a high-level summary of planned surveys and studies. Broadly, the evidence and proposed studies appear to be appropriate, although it is not possible to confirm this in the absence of more detailed information on project design, construction and operation or more detailed information on the surveys. There is also a lack of detail concerning how the evidence will be used within the assessments. For example, while surveys of ichthyoplankton and fish are planned, it is unclear how this evidence will be used to estimate entrapment impacts, the significance of such impacts or the uncertainty surrounding such estimates. These have been significant issues for other NNB projects, although it is noted that the abstraction volume for BRB is likely to be an order or magnitude smaller.

21.5. The data sources referenced generally look to be appropriate.

21.6. No receptors have been scoped out of the assessment (Paragraph 24.7.11). This is considered appropriate given the uncertainties concerning project design, construction and operation at this stage.

21.7. The underwater noise propagation model will be calibrated with site specific propagation survey data. An ambient noise survey is being undertaken over a period of 12 months and is currently underway.

21.8. The assessment framework set out in section 24.6.42 for in-combination and cumulative effects is considered appropriate.

21.9. The general approach to assessing transboundary impacts is set out in section 5.5.11 and references PINS Advice Note Twelve: Transboundary Impacts and Process. This is considered sufficient for scoping stage.

#### Recommendations:

21.10. The MMO is aware that The Essex Native Oyster Restoration Initiative (ENORI) has collected a significant amount of data on seabed habitats and the distribution of native oyster. The MMO understand that the Project is in consultation with ENORI and should seek to access this data if possible. MMO advise that all relevant data is incorporated in order to assess against the best available evidence.

21.11. In addition to harbour porpoise, the bottlenose dolphin (*Tursiops truncatus*) is another cetacean that is observed in the eastern part of the English Channel and its potential occurrence within the study area should be reviewed. For example, see <https://moat.cefas.co.uk/biodiversity-food-webs-and-marine-protected-areas/cetaceans/abundance-and-distribution-of-coastal-bottlenose-dolphins/>.



- 21.12. The MMO urges that the Project consider any potential to harm, disturbance or mortality to protected species listed under the Wildlife and Countryside Act 1981, the Conservation of Habitats and Species Regulations 2017 and/or the European Council (EC) Directive on the conservation of wild birds (2009/147/EC) (Birds Directive).
- 21.13. The MMO encourage the Project to contact the Seahorse Trust regarding any records they may hold regarding seahorses in the zone of influence.
- 21.14. The MMO advises that if any protected species are identified as being affected by the works, a Wildlife Licence may be required. Information on Wildlife Licences can be found on the MMO's website<sup>7</sup>.
- 21.15. It is anticipated that the hydrodynamic, water quality and sediment transport models which underpin elements of marine ecology assessment will be subject to calibration and validation processes which will provide assurances on model accuracy. No information has been provided concerning the approach to modelling entrapment and it is currently unclear what level of accuracy might be achieved from such a modelling approach. MMO recommend that further information is provided.
- 21.16. The proposed approach for evidence gathering is generally considered appropriate. Limited detail is provided in the scoping report concerning the ecological surveys and assessments. Previous discussions on the scope of the surveys suggest that the evidence being collected may be appropriate for informing the assessment, but MMO advise that further information is required, particularly in relation to how the entrapment assessment will be undertaken.
- 21.17. The proposed surveys are comparable with other NNB projects. It is recognised that, in contrast to HPC and Sizewell C, there is no data on entrapment from an existing power station. This significantly increases the uncertainty associated with the impact assessment and will need to be addressed in the assessment methodology.
- 21.18. There is a lack of detail in the scoping report concerning how impacts will be assessed. This is particularly so in the case of fish entrapment. It would be helpful to have information on how the entrapment assessment will be undertaken and how uncertainties will be addressed.

Hope Armstrong  
Marine Licensing Case Officer  
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E [Hope.Armstrong@marinemanagement.org.uk](mailto:Hope.Armstrong@marinemanagement.org.uk)

---

<sup>7</sup> <https://www.gov.uk/guidance/understand-marine-wildlife-licences-and-report-an-incident>





Maritime &  
Coastguard  
Agency

Bay 2/24  
Spring Place  
105 Commercial Road  
Southampton  
SO15 1EG  
UK

Your ref: EN010111\_000041\_201009

Marnie Woods  
Senior EIA Advisor  
Environmental Services  
Central Operations  
Temple Quay House  
2 The Square  
Bristol, BS1 6PN

06 November 2020

[BradwellB@planninginspectorate.gov.uk](mailto:BradwellB@planninginspectorate.gov.uk).

Dear Marnie,

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

**Application by Bradwell Power Generation Company Ltd (the Applicant) for an Order granting Development Consent for the Bradwell B New Nuclear Power Station (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 letter dated 9 October 2020 inviting The Maritime and Coastguard Agency (MCA) to comment on the application for the proposed Bradwell B Nuclear Power Station.

We note that Bradwell Power Generation Company Limited is proposing to build a new nuclear power station – the Bradwell B power station - comprising two UK HPR1000 nuclear reactors, together with associated buildings, structures and components. The MCA has an interest in the works associated with the marine environment, and the potential impact on the safety of navigation, access to ports, harbours and marinas and any impact on our search and rescue obligations. We would therefore like to comment as follows on the Scoping Report:

- 1) The MCA would expect any works in the marine environment to be subject to the appropriate consents under the Marine and Coastal Access Act (2009) before carrying out any marine licensable works. I note that this project will require cooling water infrastructure including forebay, pump houses, water treatment and cooling plant (including cooling towers). All structures in the



HM Coastguard



INVESTORS  
IN PEOPLE | Silver

marine environment should be also assessed in accordance with the UK Marine Policy Statement.

- 2) The MCA will expect the project to carry out a Navigation Risk Assessment on the impact of the works, in accordance with the International Maritime Organisation's Guidelines for Formal Safety Assessment (FSA).
  - a. We note the applicant's commitment in para 19.5.14 to carry out marine traffic surveys to record vessel movements (winter 2020 and summer 2021) in the navigational study area. These surveys will entail either AIS surveys or combined AIS and radar surveys, subject to consultation and agreement with the MCA. The MCA would welcome further discussion here.
- 3) We also welcome the applicant's commitment to undertaking a Hazard Identification (HAZID) workshop to agree risk scenarios and qualitatively assess hazards through expert opinion and local knowledge.
- 4) We would expect no effects to be scoped out of the assessment with regards to shipping and navigation, pending the outcome of the Navigation Risk Assessment and further stakeholder consultation.
- 5) The MCA advises that further discussion takes place with regards to the ongoing safe operation of the marine interface for this project. An application for a Harbour Empowerment Order (HEO) may be required. A HEO would provide powers to make different types of harbour orders to maintain and manage a harbour; *"constructing an artificial harbour; or constructing improving or maintaining a dock or wharf where the party wanting to undertake such actions does not otherwise have sufficient powers to do so effectively"*. If this is necessary, the MCA will need to be consulted on any Orders where we may require enhancing the initial conditions. Possible new conditions will be developed from the findings of a full Environmental Impact Assessment (EIS) report on the project.
- 6) The Marine Licence for the licensable activities may only cover the construction aspects and may only be valid for the duration of the construction activity. The MCA would therefore like reassurance that the ongoing safe operation of the marine interface continues throughout the life of the project. There may be key risk mitigation measures identified in the Navigation Risk Assessment which need to be conditioned in the project's consent, and we would expect the project to apply the Port Marine Safety Code and its Guide to Good Practice to this development.

At this stage, the MCA can only generalise and point the developers in the direction of the Port Marine Safety Code (PMSC). They will need to liaise and consult with any relevant local Harbour Authorities and develop a robust Safety Management System (SMS) for the project under this code.

The sections that we feel cover navigational safety under the PMSC and its Guide to Good Practice are as follows:



From the Guide to Good Practice, section 6 Conservancy, a Harbour Authority has a duty to conserve the harbour so that it is fit for use as a port, and a duty of reasonable care to see that the harbour is in a fit condition for a vessel to use it. Section 6.7 Regulating harbour works covers this in more detail and have copied the extract below from the Guide to Good Practice.

## 6.7 Regulating harbour works

6.7.1 Some harbour authorities have the powers to license works where they extend below the high watermark, and are thus liable to have an effect on navigation. Such powers do not, however, usually extend to developments on the foreshore.

6.7.2 Some harbour authorities are statutory consultees for planning applications, as a function of owning the seabed, and thus being the adjacent landowner. Where this is not the case, harbour authorities should be alert to developments on shore that could adversely affect the safety of navigation. Where necessary, consideration should be given to requiring the planning applicants to conduct a risk assessment in order to establish that the safety of navigation is not about to be put at risk. Examples of where navigation could be so affected include:

- high constructions, which inhibit line of sight of microwave transmissions, or the performance of port radar, or interfere with the line of sight of aids to navigation;
- high constructions, which potentially affect wind patterns; and
- lighting of a shore development in such a manner that the night vision of mariners is impeded, or that navigation lights, either ashore and onboard vessels are masked, or made less conspicuous.

There is a British Standards Institution publication on Road Lighting, BS5489. Part 8 relates to a code of practice for lighting which may affect the safe use of aerodromes, railways, harbours and navigable Inland waterways.

- 7) A preliminary assessment on the potential impacts to Search and Rescue resources and emergency response in the area will need to be included to ensure there are no impacts on SAR operations.

I hope you find this information useful at Scoping Stage.

Yours sincerely,



Helen Croxson  
OREI Advisor  
UK Technical Services – Navigation



Ministry  
of Defence

# Defence Infrastructure Organisation

Safeguarding Department  
Statutory & Offshore

The Planning Inspectorate  
Environmental Services  
Central Operations  
Temple Quay House  
2 The Square  
Bristol, BS1 6PN

Defence Infrastructure Organisation  
Kingston Road  
Sutton Coldfield  
West Midlands  
B75 7RL

Tel: 07970170926

Fax: +44 (0)121 311 2218

E-mail: [DIO-safeguarding-statutory@mod.gov.uk](mailto:DIO-safeguarding-statutory@mod.gov.uk)

[www.mod.uk/DIO](http://www.mod.uk/DIO)

23 October 2020

Your reference: **EN010111\_000041\_201009**

Our reference: 10047964

Dear Sir/Madam

## **Bradwell B – Proposed new nuclear power station – Bradwell-on-Sea, Essex**

### **Application by Bradwell Power Generation Company Ltd (the Applicant) for an Order granting Development Consent for the Bradwell B New Nuclear Power Station (the Proposed Development)**

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

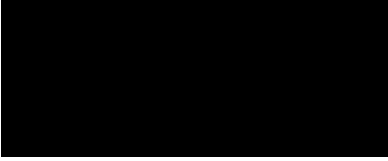
I am writing to provide Defence Infrastructure Organisation (DIO) Safeguarding comments on behalf of the Ministry of Defence (MOD) in response to the above consultation.

MOD have no objections to the development from a Safeguarding standpoint. In order to ensure aviation safety MOD are likely to request that, in addition to any aviation safety lighting that would be required under the provisions of the Air Navigation Order 2016, aviation safety lighting is fitted to any structure, whether permanent or temporary, that has a height above ground level of between 50m and 149.9m.

It is appreciated that subsequent consultations will provide additional detail on the scheme. At such time as more detail becomes available MOD would welcome the opportunity to provide comments.

I trust this sets out our position, however, should you have any questions please do not hesitate to contact me.

Yours sincerely



Debbie Baker  
DIO safeguarding



## Land and Acquisitions

Anne Holdsworth  
DCO Liaison Officer  
Land and Property  
anne.holdsworth@nationalgrid.com  
Direct tel: [REDACTED]

www.nationalgrid.com

SUBMITTED ELECTRONICALLY:  
[BradwellB@planninginspectorate.gov.uk](mailto:BradwellB@planninginspectorate.gov.uk).

02 November 2020

Dear Sir/Madam

## APPLICATION BY BRADWELL POWER GENERATION COMPANY LTD FOR AN ORDER GRANTING DEVELOPMENT CONSENT FOR BRADWELL B NEW NUCLEAR POWER STATION

### 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 9<sup>th</sup> October 2020 in relation to the above proposed application. Having reviewed the scoping report, I would like to make the following comments:

### National Grid infrastructure within / in close proximity to the order boundary

#### ELECTRICITY TRANSMISSION

National Grid Electricity Transmission has high voltage electricity overhead transmission lines, underground cables and a substation within the scoping area. The overhead lines and substations form an essential part of the electricity transmission network in England and Wales.

##### Substation

- Bradwell 132kV Substation

##### Overhead Lines

- ZT 400kV Over Head Line - Bradwell to Rayleigh Main 1 and 2

#### GAS TRANSMISSION INFRASTRUCTURE

National Grid Gas has no Gas Transmission apparatus within or in close proximity to the proposed order limits.

National Grid is a trading name for:  
National Grid Electricity Transmission plc  
Registered Office: 1-3 Strand, London WC2N 5EH  
Registered in England and Wales, No 2366977

National Grid is a trading name for:  
National Grid Gas plc  
Registered Office: 1-3 Strand, London WC2N 5EH  
Registered in England and Wales, No 2006000

I enclose a plan showing the location of National Grid's:

- overhead lines; and
- the substation

## Specific Comments – Electricity Infrastructure:

- National Grid's Overhead Line/s is protected by a Deed of Easement/Wayleave Agreement which provides full right of access to retain, maintain, repair and inspect our asset
- Statutory electrical safety clearances must be maintained at all times. Any proposed buildings must not be closer than 5.3m to the lowest conductor. National Grid recommends that no permanent structures are built directly beneath overhead lines. These distances are set out in EN 43 – 8 Technical Specification for "overhead line clearances Issue 3 (2004)
- If any changes in ground levels are proposed either beneath or in close proximity to our existing overhead lines, then this would serve to reduce the safety clearances for such overhead lines. Safe clearances for existing overhead lines must be maintained in all circumstances.
- The relevant guidance in relation to working safely near to existing overhead lines is contained within the Health and Safety Executive's ([www.hse.gov.uk](http://www.hse.gov.uk)) Guidance Note GS 6 "Avoidance of Danger from Overhead Electric Lines" and all relevant site staff should make sure that they are both aware of and understand this guidance.
- Plant, machinery, equipment, buildings or scaffolding should not encroach within 5.3 metres of any of our high voltage conductors when those conductors are under their worse conditions of maximum "sag" and "swing" and overhead line profile (maximum "sag" and "swing") drawings should be obtained using the contact details above.
- If a landscaping scheme is proposed as part of the proposal, we request that only slow and low growing species of trees and shrubs are planted beneath and adjacent to the existing overhead line to reduce the risk of growth to a height which compromises statutory safety clearances.
- Drilling or excavation works should not be undertaken if they have the potential to disturb or adversely affect the foundations or "pillars of support" of any existing tower. These foundations always extend beyond the base area of the existing tower and foundation ("pillar of support") drawings can be obtained using the contact details above.
- National Grid Electricity Transmission high voltage underground cables are protected by a Deed of Grant; Easement; Wayleave Agreement or the provisions of the New Roads and Street Works Act. These provisions provide National Grid full right of access to retain, maintain, repair and inspect our assets. Hence we require that no permanent / temporary structures are to be built over our cables or within the easement strip. Any such proposals should be discussed and agreed with National Grid prior to any works taking place.
- Ground levels above our cables must not be altered in any way. Any alterations to the depth of our cables will subsequently alter the rating of the circuit and can compromise the

reliability, efficiency and safety of our electricity network and requires consultation with National Grid prior to any such changes in both level and construction being implemented.

## Further Advice

We would request that the potential impact of the proposed scheme on National Grid's existing assets as set out above and including any proposed diversions is considered in any subsequent reports, including in the Environmental Statement, and as part of any subsequent application.

Where any diversion of apparatus may be required to facilitate a scheme, National Grid is unable to give any certainty with the regard to diversions until such time as adequate conceptual design studies have been undertaken by National Grid. Further information relating to this can be obtained by contacting the email address below.

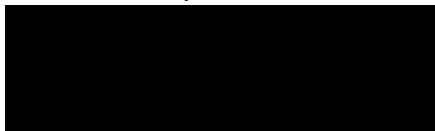
Where the promoter intends to acquire land, extinguish rights, or interfere with any of National Grid apparatus, protective provisions will be required in a form acceptable to it to be included within the DCO.

National Grid requests to be consulted at the earliest stages to ensure that the most appropriate protective provisions are included within the DCO application to safeguard the integrity of our apparatus and to remove the requirement for objection. All consultations should be sent to the following email address: [box.landandacquisitions@nationalgrid.com](mailto:box.landandacquisitions@nationalgrid.com)

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

The information in this letter is provided notwithstanding any discussions taking place in relation to connections with electricity or gas customer services.

Yours faithfully



**Anne Holdsworth**  
**DCO Liaison Officer, Land and Acquisitions**



**Legend:**

- Substations Commissioned
- Circuits
  - Commissioned
  - Decommissioned Group
  - Planned and Spares
- OHL 400Kv Commissioned
- OHL 275Kv Commissioned
- OHL 132Kv & Below Commissioned
- Towers Commissioned
- Buried Cable Commissioned
- Fibre Cable Commissioned
- Pilot Cable
- Oil Pipe
- Cooling Pipe
- Cooling Station
- RAMM
- Cable Tunnel
- Gas Operational Boundary
- Gas Site Boundary
- Trial Hole
- Vantage Point
- Block Valve
- Compressor
- LNG Site
- Multijunction
- Minimum Offtake
- Future Minimum Offtake
- Offtake
- Pressure Reduction Installation
- Pig Trap
- Terminal
- Transferred Offtake
- Aerial Marker Post
- Pipe Crossing Point
- CP Test Post
- Transformer Rectifier
- Pipeline Crossing Sleeve
  - Nitrogen Sleeve
  - Other Sleeves
- Pipe Line Control Point
- Named Pipeline Section
- River Crossings

**Notes:**

Bradwell B NG Asset Plan



OS Disclaimer: Background Mapping information has been reproduced from the Ordnance Survey map by permission of Ordnance Survey on behalf of The controller of Her Majesty's Stationery Office. ©Crown Copyright Ordnance Survey NationalGrid Electricity-100024241.NationalGrid Gas-100024886

Date: 27/10/2020  
 Time: 12:49:40  
 Page size: A3 Landscape  
 Scale: 1: 15,000  
 Print by: Holdsworth, Anne



NG Disclaimer: National Grid UK Transmission. The asset position information represented on this map is the intellectual property of National Grid PLC (Warwick Technology Park, Warwick, CV346DA) and should not be used without prior authority of National Grid.  
 Note: Any sketches on the map are approximate and not captured to any particular level of precision.

**From:** [ROSSI, Sacha](#)  
**To:** [BradwellB](#)  
**Cc:** [NATS\\_Safeguarding](#)  
**Subject:** RE: EN010111- Bradwell B new nuclear power station - EIA Scoping Notification and Consultation [SG29478]  
**Date:** 14 October 2020 12:51:23  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image003.png](#)  
[image004.png](#)  
[image005.png](#)  
[image006.png](#)  
[image007.jpg](#)

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Dear Sirs, I refer to the above. NATS has assessed the application and anticipates no impact on its infrastructure. Accordingly it has not comments to make on the Scoping Opinion.

Regards  
S. Rossi  
NATS Safeguarding Office



**Sacha Rossi**  
ATC Systems Safeguarding Engineer

D: 01489 444205

E: [sacha.rossi@nats.co.uk](mailto:sacha.rossi@nats.co.uk)

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Fareham, Hants PO15 7FL  
[www.nats.co.uk](http://www.nats.co.uk)



---

**From:** BradwellB <[BradwellB@planninginspectorate.gov.uk](mailto:BradwellB@planninginspectorate.gov.uk)>

**Sent:** 09 October 2020 17:28

**Subject:** EN010111- Bradwell B new nuclear power station - EIA Scoping Notification and Consultation

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Dear Sir/Madam

Please see the attached correspondence on the proposed Bradwell B new nuclear power station.

Please note that the deadline for consultation responses is 7 November 2020 and is a statutory requirement that cannot be extended.

Kind regards.

Alison L Down

EIA Advisor  
Environmental Services  
Direct Line: 0303 444 5039  
Helpline: 0303 444 5000  
Email: [alison.down@planninginspectorate.gov.uk](mailto:alison.down@planninginspectorate.gov.uk)

Web: <https://infrastructure.planninginspectorate.gov.uk/> (National Infrastructure Planning)  
Web: [www.gov.uk/government/organisations/planning-inspectorate](http://www.gov.uk/government/organisations/planning-inspectorate) (The Planning Inspectorate)

Twitter: @PINSgov

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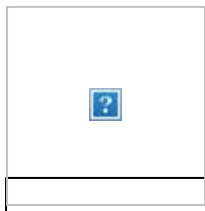


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---

Date: 06 November 2020  
Our ref: 330394  
Your ref: EN010111\_000041\_201009



FAO Marnie Woods  
Senior EIA Advisor on behalf of the Secretary of State  
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CW1 6GJ

T 0300 060 3900

[BradwellB@planninginspectorate.gov.uk](mailto:BradwellB@planninginspectorate.gov.uk)

## BY EMAIL ONLY

Dear Marnie Woods,

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

**Application by Bradwell Power Generation Company Ltd (the Applicant) for an Order granting Development Consent for the Bradwell B New Nuclear Power Station (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 09 October 2020, which we received 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 law<sup>1</sup> and guidance<sup>2</sup> 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. **Annex B** to this letter provides more detailed comment on the content of the Bradwell B EIA scoping report, appendices and figures, dated October 2020.

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

---

<sup>1</sup> Harrison, J in *R. v. Cornwall County Council ex parte Hardy* (2001)

<sup>2</sup> *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/sustainability/environmental/environmentalimpactassessment/noteenvironmental/>



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 only, please contact Dr Korda using the contact details given below. For any new consultations, or to provide further information on this consultation please send your correspondences to [consultations@naturalengland.org.uk](mailto:consultations@naturalengland.org.uk).

Yours sincerely,

Dr Rebecca Korda  
Marine Senior Adviser  
Essex Area Team

Email: [rebecca.korda@naturalengland.org.uk](mailto:rebecca.korda@naturalengland.org.uk)

Tel: [REDACTED]

## **Annex A – Natural England’s general advice related to the 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 Environmental Statement (ES), specifically:

1. A description of the development – including physical characteristics and the full land use requirements of the site during construction and operational phases.
2. Expected residues and emissions (water, air and soil pollution, noise, vibration, light, heat, radiation, etc.) resulting from the operation of the proposed development.
3. An assessment of alternatives and clear reasoning as to why the preferred option has been chosen.
4. 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.
5. 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.
6. A description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment.
7. A non-technical summary of the information.
8. 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 (EclA) have been developed by the Chartered Institute of Ecology and Environmental Management (CIEEM) and are available on their website.

EclA is the process of identifying, quantifying and evaluating the potential impacts of defined actions on ecosystems or their components. EclA 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.174-177 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**

The ES should thoroughly assess the potential for the proposal to affect designated sites. European sites (Special Areas of Conservation (SAC) and Special Protection Areas (SPAs)) fall within the scope of the Conservation of Habitats and Species Regulations 2017 (as amended). In addition, paragraph 176 of the National Planning Policy Framework requires that potential Special Protection Areas (pSPAs), possible Special Areas of Conservation (pSACs), listed or proposed Ramsar sites, and any site identified as being necessary to compensate for adverse impacts on classified, potential or possible SPAs, SACs and Ramsar sites be treated in the same way as classified sites.

Under Regulation 63 of the Conservation of Habitats and Species Regulations 2017 (as amended) an appropriate assessment needs to be undertaken in respect of any plan or project which is (a) likely to have a significant effect on a European site (either alone or in combination with other plans or projects) and (b) not directly connected with or necessary to the management of the site.

Should a Likely Significant Effect on a European/Internationally designated site be identified or be uncertain, the competent authority (in this case the Local Planning Authority) may need to prepare an Appropriate Assessment, in addition to consideration of impacts through the EIA process.

Based on the information provided to us at this stage, the permanent and temporary aspects of the development site are located within the following internationally and nationally designated nature conservation sites. Please be aware that this list should not be taken as complete as there may be other sites which need to be scoped in once all aspects of the build have been finalised.

- Essex Estuaries SAC
- Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar site
- Dengie (Mid-Essex Coast Phase 1) SPA and Ramsar site
- Blackwater Estuary Site of Scientific Interest (SSSI)
- Dengie SSSI
- Blackwater, Crouch, Roach and Colne Estuaries Marine Conservation Zone (MCZ)

Furthermore, the various project elements (main development site and associated development) are identified as presenting potential impact pathways to the following sites. Please be aware that this list should not be considered as final and there may be other sites which need to be scoped into assessment, based on the planned surveys and modelling:

- Southern North Sea SAC
- The Wash and North Norfolk Coast SAC
- Humber Estuary SAC
- Outer Thames Estuary SPA
- Foulness (Mid-Essex Coast Phase 5) SPA and Ramsar site
- Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA and Ramsar site
- Abberton Reservoir SPA and Ramsar site
- Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar site

- Stour and Orwell Estuaries SPA and Ramsar site
- Alde-Ore SPA and Ramsar site
- Hamford Water SPA and Ramsar site
- Minsmere-Walberswick SPA
- Benacre to Easton Bavents SPA
- Breydon Water SPA
- Great Yarmouth and North Denes SPA
- Medway Marshes and Estuary SPA
- Thanet Coast and Sandwich Bay SPA
- Goldsands Road Pit SSSI
- Sandbeach Meadows SSSI
- Abberton Reservoir SSSI
- Colne Estuary SSSI
- Roman River SSSI
- Medway Estuary MCZ

Further information on the SSSI and its special interest features can be found at [www.magic.gov](http://www.magic.gov). The Environmental Statement should include a full assessment of the direct and indirect effects of the development on the features of special interest within these sites, and should identify such mitigation measures as may be required in order to avoid, minimise or reduce any adverse significant effects.

European site conservation objectives are available on our internet site at <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 (as amended)**

The ES should assess the impact of all phases of the proposal on protected species (including, for example, seahorses, great crested newts, reptiles, 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 Essex Wildlife

Trust Biological Records Centre, Essex Wildlife Trust, GeoEssex or other recording society and a local landscape characterisation document).

- Local Record Centre (LRC) in Essex please contact: <http://www.essexwrecords.org.uk/>
- County Wildlife Sites in Essex please contact: <https://www.essexwt.org.uk/> or <https://www.essexfieldclub.org.uk/>
- Geological sites in Essex please contact: <http://www.geoessex.org.uk/>

### **3. Designated Landscapes and Landscape Character**

#### **3.1 Nationally Designated Landscapes**

The proposed development site is not within/adjacent to any nationally designated landscape. The closest Areas of Outstanding Natural Beauty (AONB) are Dedham Vale and Suffolk Coast and Heaths, which are approximately 22km and 24km north of the main development site, respectively. In addition, the Kent Downs AONB is approximately 50km south of the main development site. Natural England are therefore able to advise that nationally designated landscapes can be scoped out from further assessment.

#### **3.2 Landscape and visual impacts**

Natural England 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 EIA should include a full assessment of the potential impacts of the development on local landscape character using [landscape assessment methodologies](#). 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). We support the adoption of this methodology for use in 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 [National Character Areas](#) which can be found on our website. Links for Landscape Character Assessment at a local level are also available on the same page.

### **3.4 Heritage Landscapes**

Natural England advise that consideration be made to 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](http://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. Please note however that it may be appropriate for local bespoke access solutions to be explored and agreed to ensure that habitats and / or species which are especially sensitive to disturbance are appropriately considered and addressed as part of the project.

### **4.1 Rights of Way, Access land, Coastal access and National Trails**

The EIA should consider potential impacts on access land, public open land, rights of way and coastal access routes in the vicinity of the development. Consideration should also be given to the potential impacts on the England Coast Path, which is a proposed National Trail. Once open England Coast Path will be a National Trail on the proposed development site's northern boundary, and along the whole of this shoreline. All stretches of the England Coast path in this area are expected to be open and available to the public within the next 2 years.

The National Trails website [www.nationaltrail.co.uk](http://www.nationaltrail.co.uk) provides information including contact details for the National Trail Officer. Appropriate mitigation measures should be incorporated for any adverse impacts. 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 170 and 171 of the NPPF. Natural England also recommend that soils should be considered in the context of the sustainable use of land and the ecosystem services they provide as a natural resource, as also highlighted in paragraph 170 and 171 of the NPPF.

### **5.1 Soils, Land Quality and Reclamation**



Soil is a finite resource that fulfils many important functions and services (ecosystem services) for society, for example as a growing medium for food, timber and other crops, as a store for carbon and water, as a reservoir of biodiversity and as a buffer against pollution. It is therefore important that the soil resources are protected and used sustainably.

The following issues should therefore be considered in detail as part of the Environmental Statement:

1. The degree to which soils would be disturbed/harmed as part of this development and whether any 'best and most versatile' agricultural land would be affected.

An agricultural land classification and soil survey of the land should be undertaken, normally at a detailed level (e.g. one auger boring per hectare supported by pits dug in each main soil type), to confirm the soil physical characteristics of the full depth of soil resource i.e. 1.2 metres.

For further information on the availability of existing agricultural land classification (ALC) information see [www.magic.gov.uk](http://www.magic.gov.uk). Natural England Technical Information Note 049 - [Agricultural Land Classification: protecting the best and most versatile agricultural land](#) also contains useful explanatory information.

2. Proposals for handling different types of topsoil and subsoil and the storage of soils and their management whilst in store.

Reference could usefully be made to [MAFF's Good Practice Guide for Handling Soils](#) which comprises separate sections, describing the typical choice of machinery and method of their use for handling soils at various phases. The techniques described by Sheets 1-4 are recommended for the successful reinstatement of higher quality soils.

3. The method of assessing whether soils are in a suitably dry condition to be handled (i.e. dry and friable), and the avoidance of soil handling, trafficking and cultivation during the wetter winter period.
4. For any borrow pits, a description of the proposed depths and soil types of the restored soil profiles; normally to an overall depth of 1.2 m over an evenly graded overburden layer
5. For borrow pits, a detailed Restoration Plan illustrating the restored landform and the proposed after uses, together with details of surface features, water bodies and the availability of outfalls to accommodate future drainage requirements.

Further relevant guidance is also contained in the [Defra Guidance for Successful Restoration of Mineral and Waste Sites](#).

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.

## **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](http://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 [England Biodiversity Strategy](#) 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 174), which should be demonstrated through the ES.

## 8. Contribution to local environmental initiatives and priorities

Natural England advise that BRB should capitalise on opportunities to enable this project to deliver a positive environmental legacy, and thus contribute to both appropriate green infrastructure standards as well as towards the nature recovery objectives laid out in the Government's 25 Year Environment Plan. Natural England have also laid out this advice in the siting criteria and process set out in the Government's revised Nuclear National Policy statement (NPS) beyond 2025 (July 2018):

*"The 2011 Natural Environment white paper set out an ambition to achieve net gain for biodiversity as opposed to net loss. The recently published 25 Year Environment Plan identified actions to both strengthen the commitment to biodiversity net gain and expand the approach over time to natural capital net gain and ultimately wider environmental net gains as appropriate metrics become available. The NPS will establish the need to consider the potential to achieve biodiversity net gain and will set the context for achieving this at a strategic level without analysis of impacts on individual sites. More detailed assessment, for example based on the Defra biodiversity metric2, will be undertaken as part of the DCO application."*

Natural England also highlights the [Nature Networks Evidence Handbook](#) which, in line with the 25 year Environment Plan, presents guidance on establishing an effective Nature Recovery Network. [The National Infrastructure Commission Design Principles for National Infrastructure](#) also provides guidance which may help BRB to ensure that the Project results in a positive environmental legacy. Taken from the NIC design principles; "Good design supports local ecology, which is essential to protect and enhance biodiversity. Projects should make active interventions to enrich our ecosystems. They should seek to deliver a net biodiversity gain, contributing to the restoration of wildlife on a large scale while protecting irreplaceable natural assets and habitats."

Net Gain provides an opportunity to achieve this. Whilst not currently a mandatory requirement, by making a commitment to delivering Net Gain targets at this stage, it would help support the assertion that environmental considerations are one of the project's main

design principals. Ideally, we would like to see consideration of opportunities for creating or conserving and enhancing existing habitats, and believe that Net Gain presents a significant opportunity for BRB to leave a long term, positive environmental legacy.

As part of this work, we would expect for the habitats to be treated as connected networks not in isolation. By interlinking habitats, this work has the potential to support a number of Natural England's locally important species including (but not limited to):

- Brent geese (*Branta bernicla*) supported by arable reversion to grassland
- Farmland birds including corn bunting (*Emberiza calandra*)
- Breeding bearded tit (*Panurus biarmicus*), little tern (*Sternula albifrons*), ringed plover (*Charadrius hiaticula*), pochard (*Aythya farina*) and redshank (*Tringa tetanus*)
- High tide roost and feeding sites for wading birds and wildfowl
- Native oysters (*Ostrea edulis*)
- Shrill carder bee (*Bombus sylvarum*) and brown banded carder bee (*Bombus humilis*)

Natural England welcomes the opportunity BRB have provided to embrace and examine options which could help deliver this positive legacy.

## 9. 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.

## 10. Ancient Woodland

The S41 list includes six priority woodland habitats, which will often be ancient woodland, with all ancient semi-natural woodland in the South East falling into one or more of the six types.

Information about ancient woodland can be found in Natural England's standing advice [http://www.naturalengland.org.uk/Images/standing-advice-ancient-woodland\\_tcm6-32633.pdf](http://www.naturalengland.org.uk/Images/standing-advice-ancient-woodland_tcm6-32633.pdf).

Ancient woodland is an irreplaceable resource of great importance for its wildlife, its history and the contribution it makes to our diverse landscapes. Local authorities have a vital role

in ensuring its conservation, in particular through the planning system. The ES should have regard to the requirements under the NPPF (Para. 175)<sup>2</sup> which states:

When determining planning applications, local planning authorities should apply the following principles:

- a) If significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts);
- b) Development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;
- c) Development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists.
- d) Development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.

## Annex B: Natural England's specific comments on the Bradwell B EIA scoping report

Topic	Paragraph	Comment
General layout	Contents	Natural England advise that in order to make the report easier to navigate, it would have benefited from page numbers and hyperlinks on the contents page. We would be grateful if future reports included these.
Policy and Regulatory Context	2.2.1	Natural England advise that the Countryside and Rights of Way Act 2000 and the Wildlife and Countryside Act 1981 should also be included as key legislation.
The Project	3.2.1	Natural England welcome the inclusion of definitions for temporary and permanent which has moved away from ecological parameters.
The Project	3.4.21	Further clarification is required on what the worst case scenario number of construction workforce is, together with all their provided accommodations. For example, this paragraph states that a worst case scenario of 10,600 workers is estimated. However, paragraph 3.6.5 states that accommodation would be provided for up to 4,500 workers. What accommodation plans are in place for the remaining workers during the construction phase?
The Project	3.4.25 - 3.4.32	Please note that, in addition to the information provided, Defra has published a <a href="#">Code of practice for the sustainable use of soils on construction sites</a> , which should be used as further guidance when setting planning conditions for the development sites. It provides advice on the use and protection of soil in construction projects, including the movement and management of soil resources. This includes use of a Material Management Plan which requires data from a soil resources survey (see separate comment). Additional guidance relating to borrow pits can be found in the <a href="#">Defra Guidance for successful reclamation of mineral and waste sites</a> , and also set out in current <a href="#">Minerals Planning Practice Guidance</a> , particularly section 6 on restoration and aftercare of minerals sites.
The Project	3.4.47	Natural England advise that the use of biocides in the cooling water may impact on the water quality. Whilst there are explanations that there will be dilution, we request that any risks of accumulation in the sedimentary environment of the estuary are considered, and justification/evidence provided if this is scoped out of assessment. In addition, the implications for the colonising stages of saltmarsh that require microalgal colonisation that might be sensitive to biocides, should also be considered.

Alternatives	4.3 - Cooling strategy	Natural England notes that the in-direct cooling strategy has been put forward and note that this has been assessed over direct cooling methods as a more environmentally sound option. However, we expect to also see details of the options considered with respect to the different aspects of the in-direct cooling infrastructure. For example, it is noted that different cooling water intake and outfall locations were considered but not laid out within the scoping report. Natural England advises that the details of the alternative locations considered for the indirect cooling intake and outfall tunnels/pipes are provided for review, together with an assessment of their different environmental impacts. We would expect that the option with the least impact environmentally is taken forward.
EIA methodology	Table 5.3	Natural England notes that the table refers to "Value or Sensitivity". We advise that, particularly when looking at the marine environment, the term sensitivity has a specific definition from the Marine Evidence based Sensitivity Assessment (MarESA). Sensitivity is defined as the "intolerance" of a receptor to a stressor, as noted by <a href="#">The Marine Life Information Network</a> .
EIA methodology	5.5.2	Natural England advise that we would usually associate term "in-combination" with HRA purposes only, to describe the effects of a plan/project in combination with other plans/ projects, and use the term "cumulative" for all other purposes.
Air quality	Table 8.2 & 8.10	Both tables state the Cle to be used for daily NOx as: AQS Daily mean- 200ug/m3; EAL* Daily mean- 75ug/m3 (*Environmental Assessment Levels - generally considered to be 75 µg/m3). However, this only applies where there are high concentrations of SO2 and ozone, which is not generally the current situation in the UK. Natural England advise that this higher threshold can only be applied if there is robust evidence to demonstrate that both SO2 and O3 concentrations are below their own respective critical levels. This should include ideally local and recent monitoring data, to evidence that ozone and sulphur dioxide levels are below their respective thresholds in the area. We request clarification on the evidence used, or if this cannot be demonstrated, we request the lower more precautionary threshold to be used.
Air quality	Table 8.3	Table 8.3 includes Design Manual for Roads and Bridges (DMRB) LA 105 in the list of technical guidance used. Natural England would recommend taking into account Natural England's approach to assessing traffic emissions, which is outlined in our NEA001 guidance document <a href="#">here</a> .
Air quality	Table 8.5 - Cumulative impacts	Natural England would expect to be consulted on the transport model for the Project once this has been developed.
Air quality	8.4.5	Natural England advise that the relevant ecological sites to be scoped into the air quality assessment needs to take into consideration marine vessel transport routes as well as terrestrial transport routes. This means additional sites may need to be included once the vessel pathways are determined.

Air quality	8.4.6 & Table 8.8	<p>Natural England advise that the Blackwater, Crouch, Roach and Colne MCZ is also included in this list as sites, given that both native oysters and intertidal mudflats are sensitive to nitrogen and critical loads. In addition, based on a 10km study area, we advise that the Colne Estuary SPA, Ramsar and SSSI; and Abberton Reservoir SPA, Ramsar and SSSI are also considered.</p> <p>Natural England advise that BRB should refer to all potential sites and check against their conservation advice packages to ascertain if their features may be sensitive to nitrogen and critical loads. Natural England also advise again that additional sites may need to be included once the vessel pathways and final details of the projects locations are determined.</p>
Air quality	8.4.10 - 8.4.12	These paragraphs discuss non-road mobile machinery emissions, however there is no mention of the approach for ecological receptors. Natural England requests clarification on whether ecological or human health is being discussed here.
Air quality	8.4.13	Natural England request clarification on whether the term "receptors" used in this paragraph is referring to ecological or human health.
Air quality	8.4.14	Natural England stress that a study area of 5km is considered precautionary until the details of barges and off-loading facility, as well as emissions parameters, are known. This study area may need to be increased once these details are confirmed. Furthermore, the vessel pathways and the level of usage of the facilities need to be taken into consideration when determining the study area. This is of particular importance if the vessel routes will vary from normal shipping patterns.
Air quality	Table 8.6	Natural England request clarification on whether this table is in relation to ecological receptors or human health. For assessment of road traffic emissions on designated sites, we recommend referring to <a href="#">guidance document NEA001</a> .
Air quality	8.4.17	It is proposed that, within the detailed assessment of road traffic emissions, a spatial area of 200m will be assessed. However, based on preliminary assessment it is considered unlikely that effects will be significant beyond 50m of the relevant road section. We request that the full spatial area of up to 200m is assessed for significant effects.
Air quality	8.6.24 & 8.7.8	It is stated that emissions associated with marine traffic activities are likely to result in negligible changes in pollutant concentrations and have therefore been scoped out. Natural England request that data be provided to evidence negligible changes, before we can agree with this conclusion.
Air quality	8.6.40 & 8.7.8	Natural England have not agreed with the approach of excluding combustion plant if it is below 3 MW. We request further details on the number of smaller combustion plant there are likely to be, to inform this judgement.
Air quality	8.6.59	Natural England agrees with and welcomes this approach. We advise that it is ensured the PC and PEC have been presented as a percentage of the critical level/load alongside the concentrations.



Air quality	8.6.63	Natural England does not have a national position or approach to assess ammonia from traffic at present, but we very much welcome its inclusion in light of recent case law and research.
Air quality	8.7.8	It is noted that potential impacts of the Project on the marine and intertidal ecological receptors in terms of eutrophication and ocean acidification have been scoped out for further assessment, on the basis of a reduction in agricultural activities. In addition, Appendix 8C argues land-change associated with changes in emissions to water and air. Natural England advise that while the nutrient neutrality type principle discussed here is worth pursuing further assessment is required to support this approach. A full mass balance of losses to water and air would be required for the change in land use to evidence the conclusion that nitrogen is expected to decrease. In addition, the assessment of the Project's process contribution in relation to the designated site habitat's ammonia critical levels and nitrogen deposition critical loads, outlined in Table 8C.1, is requested.
Climate change	12 - general comment	Natural England stress that an appropriate impact range for each receptor must be calculated and based on the most precautionary of ecological inputs, be defined as the maximal limit of impact and include the more recent and precautionary climate change predictions.
Climate change	12.2.3	<p>In addition to the Climate Change Adaptation Manual, Natural England have many resources and data/analysis sources regarding climate change and the natural environment, many of which will help identify the climate change impacts on the ecological receptors and the habitat network in the area of the development. These resources are as follows:</p> <ol style="list-style-type: none"> <li>1. <a href="#">Nature Networks Evidence Handbook (NERR081)</a></li> <li>2. <a href="#">National Biodiversity Climate Change Vulnerability Assessment spatial data</a></li> <li>3. <a href="#">National Habitat Network data</a></li> <li>4. Biodiversity Net Gain Connectivity Tool - available as part of <a href="#">The Biodiversity Metric 2.0 (JP029)</a></li> </ol> <p>Given the scale and longevity of the development, these resources should be used in the assessment, including the site and surrounding areas.</p>
Climate change	Table 12.4	Natural England notes that the Climate Change Adaptation Manual is included in the list of relevant technical guidance, and that it is considered in the methodology presented in section 12.7. However there is no reference made to the Climate Change Adaptation Manual throughout this section, to show how it has been considered.
Climate change	12.6.7	It is stated that GHG emissions associated with land use change resulting from the Project are expected to be minimal. Natural England request that evidence is provided which justifies this assumption.

Climate change	12.7.6	Natural England notes that a separate FRA will be conducted and include an assessment of climate change. Natural England advised that, as well as assessing the current flood risk and flood risk under climate change to the development, it needs to be ensured that this assessment also includes changes in flood risks that the development creates. For example, the potential for the development of the site to increase flood risk for other receptors or in other locations.
Climate change	12.7.7	Natural England advise that the definitions listed do not cover longer term, cumulative impacts. Therefore, this calls into question the use of a hazard based approach in the assessment, especially for ecological receptors.
Climate change	12.7.17	Natural England advise that BRB should use the Climate Change Adaptation Manual and the <a href="#">Natural Environment Research Council (NERC)</a> and <a href="#">Marine Climate Change Impacts Partnership (MCCIP)</a> climate change impacts report cards, as they will be key resources to help with confidence in climate variable and their impacts for many natural environment receptors.
Climate change	Page 12-44	With regards to the potential hazards to be considered and exposure of assets and receptors, Natural England request that information should be provided on how BRB will assess the increase in vulnerability for a receptor due to the construction and running of the power station, and how BRB will gather evidence and design appropriate adaptation.
Climate change	Table 12.14	This table is mainly focused on human related consequences. Natural England advise that the environment column is broad and it is unclear if this addresses the cumulative and complex interactions between the development and climate change impact on the natural environment.
Climate change	12.7.31 & 12.7.32	It appears that it is assumed that all impacts can be mitigated. Natural England request further information on how BRB will determine those impacts that cannot be mitigated and how these impacts will be addressed.
Climate change	12.9.4 - 12.9.6	Natural England notes that this section seems to focus on the vulnerability of the development to climate change, and omits the vulnerability of other receptors (e.g. coastal squeeze as a result of increased sea defences). Natural England advise that other receptors should also be included.
Soils, geology and land use	Table 14.1	Natural England advise that this table needs to include legislation and policy with regards to soils and Best and Most Versatile land (BMV) which falls under the Town and Country Planning Act 1990 (as amended) Schedule 5 - Conditions relating to Mineral Working. Sites that are to be restored to agriculture fall under this legislation, regardless of size of quality. If more than 20ha of BMV is involved then the Town and Country Planning (Development Management Procedure) (England) Order (DMPO) 2015, also applies. Natural England is a statutory consultee for this work as transferred by part 8 of the NERC act. This would apply to off-site reclamation of, for example, borrow pits which are referred to in paragraph 3.4.30.  Please note that for multiple small application sites, each



		<p>containing less than 20 ha of 'best and most versatile' (BMV) land, the local planning authority (LPA) may consider that paragraph 170 and 171 of the National Planning Policy Framework (NPPF) does not apply. However, the 20ha threshold refers to the consultation threshold with Natural England under The Town and Country Planning (Development Management Procedure) (England) Order (DMPO) 2015, and this does not therefore mean that the LPA should not take into account smaller losses of BMV land. The NPPF refers to 'significant development of agricultural land' but 'significant' is not defined and so is open to interpretation. However, as stated in Agricultural Land Classification: protecting the best and most versatile agricultural land (TIN049) 'The land protection policy is relevant to all planning applications, including those on smaller areas' i.e. smaller than a loss of 20ha BMV.</p>
Soils, geology and land use	Table 14.1	<p>Natural England advise that the Conservation of Habitats and Species Regulations 2017 (as amended) and the Wildlife and Countryside Act 1981 (as amended), should also be included in this table. We note that that no statutory designated sites of geological interest have been identified within the main development site, or within the 500m buffer. We advise that a 500m buffer may not be sufficient for a hydrogeological buffer, as it is dependent on groundwater conditions and movements. Therefore, we recommend that statutory designations for biodiversity located on or in the surrounds of the main development site, may need a significantly larger hydro/hydrogeological buffer to be applied.</p>
Soils, geology and land use	Table 14.3	<p>Natural England previously advised that data on soils should be gathered to develop a soil resource plan, which feeds into the Soil/Materials Management Plan. It is stated that this is addressed in section 2.5 of the Soils, Geology and Land Use SMP. However, there is no mention of a soil resource survey or plan in the SMP.</p>
Soils, geology and land use	14.5.24 - 14.5.26	<p>Natural England advise that the current baseline for ALC should mention the likelihood of BMV (i.e. Grades 1, 2 and 3a in the ALC system) agricultural land dataset, with three categories (high, medium and low likelihood). It should be noted that the scale of maps used (1:250,000) is broad-brush strategic scale information and not suitable for the assessment of individual sites. See Annex C for guidance note. Regional pdfs are also available <a href="#">here</a>.</p>
Soils, geology and land use	14.5	<p>There are references made to ALC grades in 14.5.33, 14.5.40, 14.5.47 and 14.5.54. Natural England advise that it needs to be made clear that this data is sourced from published provisional ALC map at 1:250,000 scale, which is broad-brush, strategic scale information and not suitable for the assessment of individual sites. It shows five ALC grades but pre-dates the Grade 3 subdivision. As there is no detailed ALC information available to identify BMV agriculture land at the site, there is a need for a detailed ALC mapping as part of the project.</p>

Soils, geology and land use	14.6.3	It is identified that the assessment of soil and agricultural land value is not being covered by the same approach as other factors in the assessment of effects and determining significance for the EIA. The methodology for soils and agricultural land value is described in 14.6.13-14.6.18, however it does not take account of industry methodologies. Natural England advise that standard industry methodologies should be used in the assessment, instead of the described proposed professional judgement.
Soils, geology and land use	14.6.13 - 14.6.18	<p>Natural England advise that, instead of BRB's proposed subjective approach based on professional judgement, use is made of one of two existing published EIA assessment framework methodologies. The recommended publications are as follows:</p> <ol style="list-style-type: none"> <li>1. <a href="#">EIA Handbook 3rd Edition</a></li> </ol> <p><i>Carroll, B., Fothergill, J., Murphy, J and Turpin., T. (2019) Environmental Impact Assessment Handbook: A practical guide for planners, developers and communities, Third edition</i></p> <ol style="list-style-type: none"> <li>2. <b>Highways England - Design Manual for Roads and Bridges (DMRB)</b></li> </ol> <p><a href="#">Sustainability &amp; Environment Appraisal (LA 109 Geology and soils)</a></p>
Soils, geology and land use	14.6.14 and 14.6.16	<p>The National Planning Policy Framework is a national policy document so the BMV policy applies at a national scale. Rather than make comparisons of loss at a local county level the sites BMV percentage should be compared with the national breakdown of BMV (estimated at 42%) for England. Please refer to the <a href="#">Agricultural Land Classification: protecting the best and most versatile agricultural land (TIN049)</a>.</p> <p>This comparison gives an indication as to whether there is a disproportionate loss compared with the national situation. There won't be a reliable breakdown of the ALC grades, including the subdivisions of Grade 3, for geographical areas like counties, as these will be based on measurements from the 1:250,000 provisional ALC map. This does not show the subdivisions of Grade 3 and predates the revision of the ALC grading criteria which took place in 1988.</p>
Soils, geology and land use	14.6.16	Natural England advise that the data obtained from a detailed field ALC survey is required, in order to make a valid assessment of effects and to determine significance. The assessment does not need to use worst-case scenarios, rather appropriate data sources. A robust decision making process should use published EIA assessment framework methodologies and detailed ALC survey data. It is recommended that the proposal that the assessment will be performed using a worst-case scenario is removed from the report and the above methods are adopted.

Soils, geology and land use	Table 14.6	Natural England advise that non BMV land cannot be scoped out because it has intrinsic value as a soil resource for the ecosystem services that it provides. The use of the published EIA assessment framework methodologies, described above, take into account the value of non BMV land and ensure national policy is met, specifically with regard to all soils. For the NPPF paragraph 170 (a&b) and Planning Policy Guidance please see: <a href="https://www.gov.uk/guidance/natural-environment#agricultural-land-soil-and-brownfield-land-of-environmental-value">https://www.gov.uk/guidance/natural-environment#agricultural-land-soil-and-brownfield-land-of-environmental-value</a>
Soils, geology and land use	Table 14.15	It is noted that earthworks and construction, including any associated dewatering activities, is listed under the activities column in this table. Natural England advise that, in addition to direct contamination, site works also have the potential to disrupt groundwater flow pathways which may supply sensitive water dependent areas. We recommend that this is considered in the list of effects.
Soils, geology and land use	Table 14.16	Natural England note that "Effect on groundwater quality in groundwater in the Principle Aquifer in the Thanet Sand and Chalk" has been scoped out.  We advise that any penetrative techniques such as drilling boreholes or piles may introduce a preferential pathway to the underlying, more sensitive, principal aquifer. It should be ensured that there are no mechanisms of contamination from such activities, e.g. borehole perforation of overlying deposits and subsequent contamination. A foundation works risk assessment and best practice drilling techniques should address this risk.
Water environment	Table 15.1	Natural England advise that the Conservation of Habitats and Species Regulations 2017 (as amended) and the Wildlife and Countryside Act 1981 (as amended), should also be included in this table.
Water environment	Table 15.3	It is noted that, under the Environment Agency points of discussion, "It was requested that during dewatering (which is relevant to the main development site only), consideration should be given to whether this is solely a freshwater issue or if dewatering could affect freshwater flow onto the saltmarshes." We advise that consideration should also be given to whether dewatering could also result in a saline ingress into freshwater aquifers and water bodies.
Water environment	Table 15.3	Under Natural England's points of discussion it is stated that "until further details regarding the development requirements for the main development site and specifically the Bradwell B power station construction are available and the deeper GI and the baseline completed, the Chalk aquifer will instead be retained for assessment, in other words 'scoped in". However, this contradicts the hydrogeology section (table 14.16) in which chalk is scoped out. Natural England would like clarification on whether it is to be scoped in or out of the assessment.

Water environment	Table 15.4	Natural England agree with the use of Sustainable Drainage Systems, however we advise that this should be used where required, rather than "where possible". Natural England advise that drainage should only be added where necessary, and restoration of the natural hydrological regime to the area should be considered as the most favourable approach.
Water environment	Table 15.4	Natural England advise that, as well as recognising the importance of the Borrow Dyke and its relevance with respect to Water Management Zones and surface water drainage strategy, its impacts on the hydrological regime of the area should also be recognised and steps should be taken to restore the natural hydrological flows in the area.
Water environment	15.4.3	Natural England agree that a 3km radius study area is sufficient. However, this is inconsistent with the scoping distance of a 500m buffer used to identify designated site receptors, as referred to in the Soils, Geology and Land Use chapter.
Water environment	15.5.23	It is noted that the monitoring frequency for the boreholes is insufficient to determine the equivalent tidal responses in groundwater. However, Natural England advises that knowledge of tidal changes on groundwater level may be required to determine the risk of saline intrusion, resulting from dewatering operations.
Water environment	15.5.53	Natural England request clarification on whether the land referred to in this paragraph is linked to a Transitional and Coastal (TraC) waterbody. Natural England advise that small watercourses should be contained within an overall water body as the WFD applies to the whole catchment, even when there may not be a designated monitoring point located within a specific watercourse.
Water environment	15.5.55	On the basis of "one out all out principle" Natural England agrees that moderate status appears to be a reasonable assumption for the baseline. However, this may be expected to improve through time and through the project timeline.
Water environment	15.6.2	Natural England notes that relevant consultees will be engaged to ensure confirmation and agreement on assessment methodology and scope throughout the evolving project design process. We advise that this consultation should take place as early as possible in the assessment process.
Water environment	15.6.4	Natural England requests clarification on how this approach to the assessment of effects will fit with the application of the precautionary principle for Natura 2000 sites which may be linked hydrologically.
Water environment	15.6.5	Natural England advise that the current condition of the receptor should not be used to assess significance/value of the receptor. Any potential impact should be assessed against the unimpacted/reference state of the receptor. The only exception to this would be in the assessment of net gain and natural capital calculations.

Water environment	Table 15.28	Natural England note that the examples of high value water features and medium value water features include high or good overall status WFD water body, and moderate or lower overall status WFD water body, respectively. Natural England advise that it is not acceptable to value one water body over another based on its current condition. As a minimum, the WFD principle of "no deterioration" applies to all water bodies.
Water environment	15.8.2	Natural England advise that, as well as retaining watercourses, they should be enhanced/restored where possible, together with riparian areas. Riparian land should be considered as integral to the aquatic environment as opposed to a buffer strip and form of mitigation for adjacent pressures. Furthermore, Natural England notes that the provision of new routes for the watercourse channel would be a more accurate description of mitigation / compensation for lost sections of channel as it is unlikely that a completely new water course could be provided.
Coastal geomorphology & hydrodynamics	Table 17.19	Natural England note that marine works on sandbanks has been scoped out. Natural England advise that there is insufficient evidence at this time for this to be scoped out. This is particularly the case as effects of dredging and associated disposal of dredge material have not been considered. There are also uncertainties concerning use of marine aggregates and their source. These elements should be considered further when the methodology and location of works is more clearly defined.
Marine water quality and sediments	18.4.3	Natural England note that the finalised zone of influence (Zol) is yet to be determined, and that the precautionary Zol (stated as 20km) will be revised when details of the relevant modelling and details of relevant mobile species are available. We welcome BRBs decision that the preliminary Zol will be based on the most precautionary potential impacts but advise that all underpinning modelling takes into account the most precautionary climate change predictions for the lifetime of the project.
Marine water quality and sediments	18.5.8	Natural England welcomes BRBs decision to assess impacts from the operational design life of the power station in relation to long-term climate change. We emphasise that this should be assessed against the most recent and precautionary climate change predictions. Furthermore, we advise that, as well as sea temperature fluctuations, salinity and pH fluctuations should also be reviewed in this context.
Marine water quality and sediments	18.6.8 & Table 18.7	<p>Natural England expects that all pressures are considered in full within all assessments, not just those that are deemed medium - high risk pressures. Natural England's Conservation Advice packages contains an Advice on Operations (AoO) section which assigns a risk score to a pressure which can vary depending on the activity in question combined with site- and proposal-specific factors and so to exclude all low risk pressures may not be suitable.</p> <p>Natural England require further justification on how BRB identified their risk scores. Natural England advise that the AoOs should be referred to rather than the JNCC PAD which is based upon Natural England's Risk Profiling of Pressures (RPP). RPP is intended to support the application of the new marine</p>

		<p>conservation advice packages to an assessment of the potential impacts of an activity on the features of a MPA, usually as part of the screening stage of an assessment. The RPP was created to rank the pressures by the general risk they pose to the environment under normal conditions, but in no case should be taken as a 'one size fits all' approach as the risk associated to the pressure will be specific for each situation. The RPP is generic and does not constitute a risk assessment and therefore should not be used as such. It should only be used to inform such assessments in conjunction with all available site-specific information.</p> <p>In the RPPs all pressures assessed as generically posing low risk to features of MPAs are accompanied by supporting text that highlights factors under which the risk associated with the pressure can increase. This text should always be read in conjunction with the associated Activity-Pressure justification. This supporting information should be considered in light of knowledge/evidence relating to the activity and/or site to determine whether the pressure should be given any further consideration in a site-based assessment. It is important to note that there may be additional factors, not mentioned in the supporting text that might result in re-consideration of the risk posed to the feature by the activity, as a result of the pressure. Some low risk pressures may become medium-high risk pressures as a consequence of these additional site-specific factors and users should seek further advice from Natural England's area team staff in these instances. Conversely, in specific cases pressures assessed as generically posing medium to high risk to features of MPAs may be screened out as part of an assessment on the basis of activity and/or site-specific knowledge/evidence.</p> <p>Natural England have AoO available for the MCZ and SPAs in the Blackwater area and these should be used during the screening process rather than the PAD. As the PAD only presents non-site specific activity-pressure interactions (based on NE's RPP), the site-specific caveats are not included and so further explanation of how low risk pressures were identified in this situation is required to ensure that no pressures have been incorrectly screened out.</p>
Landscape and visual amenity	20.5.32 & 20.5.98	<p>Natural England can confirm that, at present, there are no National Trails within 25km of the main development site. However, please note that the proposed England Coast Path (ECP) is also a proposed National Trail (it follows the development sites northern boundary and along the whole of this shoreline) and, once open, it will be a designated National Trail. The stretch most likely to be opened first and confirmed as a National Trail is that from Maldon to Salcott, with the other stretches open soon after. It is anticipated that all will be open and available to the public within the next two years.</p>

Landscape and visual amenity	Table 20.23	Natural England welcomes the inclusion of a Landscape and Visual Impact Assessment to assess potential impacts on landscape and seascape. Without wishing to prejudge the outcome of this assessment, Natural England is minded to agree that given the distance of the proposed development from the nearest nationally designated landscapes (Dedham Vale AONB, Suffolk Coast and Heaths AONB and Kent Downs AONB), that they can be scoped out from further assessment.
Climate change	23 - general comment	Natural England note that there is little information provided on climate change and the assessments proposed in relation to climate change and biodiversity. Natural England advise that there needs to be crossover between the biodiversity methods and the climate change assessment (chapter 12), how they interact and how the development will affect them both. At present, it is not clear how the potential for climate change to increase impacts on the natural environment has been factored into the assessments for biodiversity.
Biodiversity: terrestrial & freshwater ecology & ornithology	23.1.1	Natural England recommend that the ecology chapter of the Environmental Statement should thoroughly explore all reasonable options to enhance the development for biodiversity including protected and Priority species to support the Secretary of State in demonstrating their statutory duty to have regard to conserving biodiversity (s41 NERC Act 2006).
Biodiversity: terrestrial & freshwater ecology & ornithology	23.1.3	Natural England advise that there is also a need to ensure that the scope of other chapters includes implications for ecological receptors within this chapter. For example, intertidal infauna may be covered under marine ecology, but this community should also be considered as a food resource for birds.
Biodiversity: terrestrial & freshwater ecology & ornithology	23.1.5	Natural England note the relationship between the HRA and EIA assessment frameworks is described within this paragraph. We agree that it is important that they liaise closely with each other, and preferably the HRA should be informed by the EIA. We advise that the timing of the preparation of each is therefore important such that both are not forming their own conclusions independently of the other.
Biodiversity: terrestrial & freshwater ecology & ornithology	23.1.6	Natural England support HRA Evidence Plan (EP) being developed and note that this constitutes a non-legally binding agreement between the applicant and the relevant Statutory Nature Conservation Bodies (SNCBs) and competent authorities on the information that needs to be provided in order to produce a robust and appropriate HRA. Whilst we note that the process has not progressed far enough yet, it is expected that this assessment will need to consider any impacts in combination with other plans and projects including Sizewell C. We recommend that the ES text explains the need for Stage 2 HRA Appropriate Assessment should the EP conclude that, without mitigation, Likely Significant Effects cannot be ruled out; this consequence is not currently included.
Biodiversity: terrestrial & freshwater ecology & ornithology	23.1.6	This paragraph refers to a 'no significant effect report' (NSER) from PINS advice note 10. Whilst we note this option, in view of the scale of the impact anticipated, we assume such a report will not be needed for this project.

Biodiversity: terrestrial & freshwater ecology & ornithology	23.1.9	It is unclear from this paragraph if associated development (AD) sites have been surveyed. We assume these have not yet been surveyed if they have not been formally identified yet.
Biodiversity: terrestrial & freshwater ecology & ornithology	23.1.9	Natural England advise that, whilst potentially providing useful context, (i.e. for species that have declined since and have a recovery objective), the 2007-2009 survey work is out of date.
Biodiversity: terrestrial & freshwater ecology & ornithology	23.1.11	Natural England note that BRB acknowledges the incomplete nature of the dataset.
Biodiversity: terrestrial & freshwater ecology & ornithology	23.1.12	Natural England advise that the list of 'notable' species should be expanded as many of the notable species that need to be included are not included in s41, such as terrestrial invertebrates and plants. In addition, the relevant conservation criteria should be noted in this section (i.e. RDB, nationally scarce etc.).
Biodiversity: terrestrial & freshwater ecology & ornithology	Table 23.4 - Mitigation	Natural England advise that the primary objective for non-operational land that falls within the red line boundary should be for management to ensure biodiversity net gain.
Biodiversity: terrestrial & freshwater ecology & ornithology	Table 23.4	It is noted that surveys were amended to also cover passage and breeding season over a two-year period. Natural England advise that two years of survey data is a minimum standard and, for a project of this scale, ideally three years of survey data should be collected.
Biodiversity: terrestrial & freshwater ecology & ornithology	Table 23.4 - Project-provided accommodation	Natural England note that reference is made here to recreational disturbance. Whilst it is good that the bird survey will cover observed disturbance events, we note that no separate recreational study has been, or is proposed to be, undertaken to explore patterns of visitor use of the area and assess potential changes. It is not clear to us whether a bird study can adequately address this issue, and we do not recall this specifically from earlier workshops. We suggest that a separate study looking at recreational patterns and behaviours is undertaken.
Biodiversity: terrestrial & freshwater ecology & ornithology	23.4.1	Natural England note that the study area is flexible as the project evolves. We advise that the survey scope needs to be sufficiently precautionary so as to allow for all possible options, to ensure no data gaps become apparent when site selection narrows these down.
Biodiversity: terrestrial & freshwater ecology & ornithology	23.4.4	Natural England advise that the scope of the study area should cover any area subject to potential environmental modification as a consequence of the development. It should be noted that for some pathways this may extend a considerable distance beyond the main development site.



Biodiversity: terrestrial & freshwater ecology & ornithology	Table 23.5 - Badger surveys	It is noted that in table 23.5 the study area for badger surveys is 100m radius of the MDS, plus additional area to map territories. However, table 23.9 states that the badger activity survey area will be expanded to at least 1km from the site boundary. Natural England would like clarification on what the proposed study area will be.
Biodiversity: terrestrial & freshwater ecology & ornithology	Table 23.5 - statutory designated sites	<p>For statutory designated sites, 'standard guidance' is mentioned, but not specified (i.e. which guidance does this refer to?). Natural England advise that caution should be applied when using rule of thumb buffers, especially where mobile species and wider environmental impact pathways need to be considered. In particular, where (1) mobile species which may utilize functionally linked areas beyond designated site boundaries are involved; (b) environmental modification pathways can extend a considerable distance beyond development boundaries e.g. impacts on water temperature; (c) developments have indirect effects such as resulting in an influx of people who will cause recreational disturbance when not working. All these pathways will need to be accommodated in the EIA appraisal, and consequently will need an underpinning assessment of risk pathways and potentially affected receptors.</p> <p>Furthermore, Natural England advise that the sites selected should make use of Impact Risk Zones (IRZs)* in the first instance, but these are not referred to here. BRB is requested to clarify how they will use the IRZ tool for their assessment purposes.</p> <p>*IRZs should be used in the first instance as a point of reference. However the zones may not be precisely accurate, particularly when functionally linked land is concerned, and the impact zone may be of greater magnitude.</p>
Biodiversity: terrestrial & freshwater ecology & ornithology	Table 23.5 - terrestrial (non-breeding) bird surveys	Natural England supports the expansion of the study area to account for the need to make an assessment of e.g. brent geese across the wider estuary. We understand that habitat data using aerial imagery will be useful for this purpose, but this is not mentioned.
Biodiversity: terrestrial & freshwater ecology & ornithology	Table 23.5 - terrestrial (non-breeding) bird surveys	Natural England advise that more consideration should be given to "alert distance" when birds do not show obvious signs of panic/flight but feeding will be interrupted while the birds are in an alert state. In addition, an evaluation of habitat selection by Brent geese should consider alternative feeding areas (AFAs) attractive to Brent geese, including fields of barley and oilseed rape and cultivation of a sacrificial cover crop. Terrestrial surveys should identify 'sacrificial areas' outside the development footprint, that are currently under cereal production where displaced flocks can feed, and subject to agreed compensation for landowners for loss of crops. Selection of AFA's should also investigate landscape topography and barriers to public access and dogs.
Biodiversity: terrestrial &	Table 23.5	Natural England note that mink seem to be absent from the report, but advise that mink should be included in this document.

freshwater ecology & ornithology		
Biodiversity: terrestrial & freshwater ecology & ornithology	Table 23.6	Natural England recommend that this table should mention the IRZ as a source of desk-based data.
Biodiversity: terrestrial & freshwater ecology & ornithology	Table 23.6	Natural England would like to request a copy of the Bradwell invertebrate survey report from 2009.
Biodiversity: terrestrial & freshwater ecology & ornithology	Table 23.6 - Bradwell interim bird reports	Natural England advise that, whilst these surveys may identify where birds are, for species with a recover objective it also needs to be ensure that the development does not prevent recovery and, where possible, the development should seek to enable recovery of the species.
Biodiversity: terrestrial & freshwater ecology & ornithology	23.5.4	Natural England advise that this paragraph should reference the Ramsar and SSSI plant assemblages (which strictly speaking are not habitat features, but are interest features in their own right).
Biodiversity: terrestrial & freshwater ecology & ornithology	23.5.7	Natural England advise that intertidal habitat, such as intertidal mudflats and sandflats, should also be included in this list.
Biodiversity: terrestrial & freshwater ecology & ornithology	Table 23.8	Natural England note that this table contains no reference to Ramsar/SSSI plant assemblages We advise that these assemblages must be scoped into the assessment.
Biodiversity: terrestrial & freshwater ecology & ornithology	23.5.15	It should be noted that legal and policy drivers exist to improve the condition of statutory designated sites. Therefore, Natural England advise that the future baseline could reasonably be expected to show some improvement to these sites in the absence of the project.
Biodiversity: terrestrial & freshwater ecology & ornithology	Table 23.9	Natural England note that there do not appear to be any offshore surveys associated with transport corridors within this table. We request clarification on if these surveys will be included as part of the assessment.
Biodiversity: terrestrial & freshwater ecology & ornithology	Table 23.9	It is not clear whether the NVC survey is adequate to locate Ramsar/SSSI plant species, as these are not 'habitats' which NVC is tasked with identifying, but species in their own right which should be subject to targeted survey effort. Clarification on how Ramsar/SSSI plant species are being targeted in the surveys is requested.
Biodiversity: terrestrial & freshwater ecology &	Table 23.9	Natural England would like clarification on whether the surveys took place this year for the various proposed bat surveys. Natural England are aware that some surveys were put on hold due to Covid-19 restrictions (e.g. the trapping surveys planned

ornithology		for woodland areas), and we would like clarification on which surveys have taken place and how gaps in survey effort will be filled, or future survey effort refined based on the findings. In addition we would like to see details of the results of the surveys carried out, including the transect routes, trees that have been identified and scored via Potential Roost Feature (PRF) methodology, building locations and associated roost potential.
Biodiversity: terrestrial & freshwater ecology & ornithology	Table 23.9	Natural England would like clarification on whether the proposed otter surveys took place this year (April 2020)
Biodiversity: terrestrial & freshwater ecology & ornithology	Table 23.9	Natural England would like clarification on whether the proposed water vole surveys took place this year (April 2020)
Biodiversity: terrestrial & freshwater ecology & ornithology	Table 23.9	Natural England note that, as currently planned, at completion many surveys will only cover 2 years. This is a minimum standard, and we recommend that if there is any slippage in the survey schedule, continuing these surveys into additional seasons will add value and enhance data quality.
Biodiversity: terrestrial & freshwater ecology & ornithology	23.6.9	It should be noted that the EIA definition of 'significant effect' differs from HRA definitions, for which case law & subsequent guidance should be referred to.
Biodiversity: terrestrial & freshwater ecology & ornithology	Table 23.10	The Scoping Report Table 23.10 does not explain how impacts to receptors of lower than 'medium' scale of change will be assessed. As the Project design evolves, we recommend that the Scoping Report allows for any effects which may become significant, to be assessed using methodology in line with Chartered Institute of Ecology and Environmental Management (CIEEM) 2018 Guidelines for Ecological Impact Assessment. We would remind the Applicant to ensure that sufficient regard is given to biodiversity as required by the NERC Act 2006 and the relevant NPSs, and that all receptors that could be significantly affected are assessed.
Biodiversity: terrestrial & freshwater ecology & ornithology	Table 23.12 - Designated sites	Natural England advise that consideration should be given risks and pathways arising from all aspects of the developments alteration of the environment, and all consequential impacts. Some impact pathways may extend a considerable distance beyond the site footprint, e.g. those associated with modification of estuary water temperature; impacts on fish stock arising from nursery ground alteration; transport corridors and pollution, especially during the operational period. As such, for some pathways risks need to be assessed against the Zol of environmental modifications not the development footprint.
Biodiversity: terrestrial & freshwater ecology & ornithology	Table 23.12 - Fish communities	Natural England advise that fish populations may underpin the condition of international sites and internationally important populations where fish-eating birds are a feature, and this should be considered as an indirect impact pathway for these features.

Biodiversity: terrestrial & freshwater ecology & ornithology	Table 23.13	Natural England advise that many Estuary/Marine areas of potential environmental impact appear to be omitted. For example, estuary temperature; estuarine process; sediment dynamics; estuarine substrates; estuarine biota; fish nursery; pollutant loading; tidal exposure etc. All of which are important environmental attributes supporting the bird interest. In addition, potential disturbance arising from staff when on-site outside of work hours appears to be omitted.
Biodiversity: terrestrial & freshwater ecology & ornithology	23.8.1	Natural England advise that the creation of habitat for breeding waders should also include an evaluation of the location of badger setts, and if necessary the closure of any setts within new breeding wader habitat, and potentially using steep sided ditches and fencing, as used at Wallsea, to prevent badgers swimming across ditches. This could also be combined with the creation of new water vole habitat.
Biodiversity: terrestrial & freshwater ecology & ornithology	23.8.1 - bullet point 2	Natural England advise that the creation of new water vole habitat lends itself to the creation of mosaic habitats on a landscape scale. Water vole habitat can be designed with built in complexity as discussed in <a href="#">CIEEM In Practice issue 89 – Water vole translocation: Building Resilience to Predation into Receptor Habitat Design. Keeling C.D., Dwight C.</a> Mitigation for loss of water vole habitat offers opportunities to create a complex system of interconnected channels and separate water bodies isolated from the main network providing water voles with refuge from predation e.g. mink, and greater opportunities for re-colonisation. Complex water vole habitat if incorporated into new wetland habitats on a landscape scale may inhibit opportunistic foraging by terrestrial predators (fox, badger) increasing opportunities for nests and chicks to be missed or potentially ignored, as potential predators are obliged to expend greater effort moving through a complex landscape.
Biodiversity: terrestrial & freshwater ecology & ornithology	23.8.1	Natural England advise that as the project is a development, the only permitted licensable activity, under the Protection of Badgers Act, is sett interference. This includes: <ul style="list-style-type: none"> <li>• Damaging a badger sett nor any part of it;</li> <li>• Destroying a badger sett;</li> <li>• Obstructing access to, or any entrance of, a badger sett;</li> <li>• Causing a dog to enter a sett; or</li> <li>• Disturbing a badger when it is occupying a sett.</li> </ul> <p>Capture and removal of badger from the site will not be an option.</p>
Biodiversity: terrestrial & freshwater ecology & ornithology	23.8.1	Natural England advise that the objective across the board should be to increase ecological value of the area and not just to prevent further decline. Therefore, restoration plans and habitat management plans need to be framed in a 'better than baseline' context.

Biodiversity: terrestrial & freshwater ecology & ornithology	Figures	No figure has been provided to illustrate the location of badger setts, however Natural England is aware, from previous documents provided, that the current development footprint will impact on multiple badger setts and result in the loss of a number of clan territories. We advise that artificial setts will need to be created in vacant territories, to compensate for the loss of main setts, prior to the exclusion of badger from the natural setts. As previously advised, additional surveys of the surrounding habit should be conducted to identify neighbouring badger clan territories. This is required to provide an understanding of the wider impacts on the species and to identify vacant habitat outside of the territorial boundaries.
Marine ecology and fisheries	Chapter 24 - general comment	Natural England is broadly in agreement with the effects scoped in for assessment marine mammals, however it is not clear which effects have been considered, but scoped out from further assessment due to there being no impact pathway. No mention is made in the scoping report of the requirement for a European Protected Species licence and this should be considered as part of the EIA.
Marine ecology and fisheries	Chapter 24 - general comment	Natural England is also in agreement with the designated sites scoped in to the HRA with marine mammal features, namely the Southern North Sea SAC, the Wash and North Norfolk Coast SAC and the Humber Estuary SAC. We look forward to receiving the characterisation report and providing further input in to the HRA Report to Inform Appropriate Assessment.
Marine ecology and fisheries	Table 24.1	Natural England advise that The Conservation of Seals Act 1980 should also be included in this table.
Marine ecology and fisheries	Table 24.2	Natural England note the mention of our AoO in relation to the JNCC PAD. There is no mention in the relevant technical guidance to suggest that Natural England's Designation Sites System and relevant Conservation Advice packages, including the AoO and Supplementary Advice on Conservation Objectives, have been used. Natural England advise that the Conservation Advice packages are referred to for all relevant sites. Please also refer to our comment relating to paragraph 18.6.8 and Table 8.7.
Marine ecology and fisheries	Table 24.4 - Alternatives	Whilst Natural England anticipated that the proposed works may result in permanent loss of saltmarsh and intertidal mudflats, this is by no means to pre-judge the outcome of the relevant assessments.
Marine ecology and fisheries	Table 24.4 - Stakeholder Engagement	Natural England welcomes the company's aims for net gain, however we advise that aspirations and projects should include targets for the marine and coastal ecology, as well as terrestrial and freshwater ecology.
Marine ecology and fisheries	Table 24.5	Natural England advise that <a href="#">The Special Committee on Seals (SCOS) 2019 report</a> , which is now available on the Sea Mammal Research Unit website, should be used in the assessment for seal species. In addition, <a href="#">Heinänen &amp; Skov (2015)</a> provides the results of detailed analyses of 18 years of survey data in the Joint Cetacean Protocol and should be used to inform the harbour porpoise assessment.

Marine ecology and fisheries	Table 24.5	Natural England request that more detail should be provided on the evidence and datasets outlined in table 24.5, in order to be able to fully provide our advice. In addition, we would like to see any desk studies which have been used to inform the EIA scoping report, for example, records of protected and migratory fish occurring in the Blackwater. Such species may be functionally linked to other nearby protected sites and are not identified in this report.
Marine ecology and fisheries	Table 24.5 & 24.4.8	Paragraph 24.4.8 outlines that BEEMS surveys occurred between 2008-2009, but no further details are provided. Table 24.5 lists some of the datasets which will be used. Natural England would like a more detailed description on which data will inform the entrapment assessments and the methodology proposed to estimate entrapment of Bradwell B. Recent entrapment assessments have so far been able to rely on pre-existing impingement datasets collected from the operation of preceding power stations (e.g. Hinkley Point B and Sizewell B). We understand the data available from Bradwell A operation is more limited, and so would request that i) the BEEMS data and metadata be added as an appendix for review, ii) a clear outline of what additional data is available to inform the entrapment, and iii) an outline of the proposed methodology to estimate Bradwell B entrapment.
Marine ecology and fisheries	24.5 - current baseline - fish	Natural England recommend that reference should also be made to protected fish species. For example, given the presence of seagrass in the Blackwater, the potential for seahorses to be present needs to be considered.
Marine ecology and fisheries	24.5.17	This paragraph refers to Blackwater Herring. Natural England advise that specific reference is made to the known spawning location at Eagle Bank, and additional records by Osea Island (reference: CEFAS report 109. Fox, Milligan and Holmes, 1999)
Marine ecology and fisheries	Table 24.6	Natural England note that there are no marine mammal surveys described here. Natural England would like clarity to be provided as to whether marine mammal surveys are being undertaken and rationale provided.
Marine ecology and fisheries	Table 24.6 - Bathymetry and backscatter	It is stated that the scope of the bathymetry and backscatter surveys were agreed through stakeholder consultation. However, Natural England have not yet fully agreed to the scope of these surveys and request that an updated survey plan is submitted for us to see how our comments have been taken into account.
Marine ecology and fisheries	Table 24.6	Natural England recommend the inclusion of an updated Fish and Plankton SMP and updated Marine Benthic Ecology SMP within the appendices of the report, as this information underpins the summaries provided in table 24.6. In addition, Natural England have not yet had sight of an updated Marine Benthic Ecology SMP and, therefore, don't know how our previous comments on this plan have been accounted for.

Marine ecology and fisheries	Table 24.6 - Marine benthic ecological surveys	Natural England note that triplicate samples have been collected. As previously raised, this is un-necessary and we advise that it would have been more useful to have a better spatial spread of sample points.
Marine ecology and fisheries	Table 24.6 - Oyster population model	Natural England advise that, as well as the outputs from, and comments on this model in the Environmental Impact Assessment, the data used should also be cited. For example, what data was fed in to the model, including why and how this data was used. In addition, any assumptions made and limitations of the model should be clearly articulated.
Marine ecology and fisheries	Table 24.6 - Oyster thermal tolerance experiments	Natural England request that the full report of the experiment and findings should be made available in the final Environmental Impact Assessment.
Marine ecology and fisheries	Table 24.6	Natural England suggest that a map detailing where all the survey work has taken place would be useful, so that the coverage of the surveys can be easily visualised. In addition, we advise that the detail in the final Environmental Impact Assessment should be as full as possible and made accessible. For example, any surveys, modelling or experiments that are summarised in the main text should be clearly linked to their full reports in the appendices.
Marine ecology and fisheries	24.6.4	Natural England's comments regarding the use of JNCC PAD apply here. See comment relating to 18.6.8 and Table 8.7.
Marine ecology and fisheries	Table 24.17	Natural England welcomes the inclusion of unexploded ordnance (UXO) detonation in the construction activities. UXO works should be quantitatively assessed and also included in the in-combination assessment. If UXO are identified, a separate Marine Licence application will be required for detonation works, including supporting information such as underwater noise modelling, an assessment of the potential impacts of the works and a marine mammal mitigation plan (MMMP).
Marine ecology and fisheries	24.8	Natural England advise that a marine mammal mitigation plan (MMMP) will be required in accordance with the <a href="#">JNCC piling guidelines (2010)</a> and informed by the outcomes of the underwater noise modelling and environmental assessment.
List of receptors	Appendix 13A	Natural England have noticed that there are inconsistencies with the list of designated sites receptors listed within this appendix, and designated sites which have been scoped into the preliminary screening tables in the HRA/MCZ evidence plan. For example, Stour and Orwell Estuaries SPA is scoped into the preliminary screening tables, but it is not listed in the EIA scoping report appendix. This is also true for other designated sites that have been scoped into the preliminary screening tables, but not included in the EIA appendix. Natural England request justification for why sites scoped into the preliminary screening tables have been omitted from this appendix.



Soils, geology and land use survey monitoring plan	Appendix 14A 2.5.4	Natural England advise that the proposals for the survey methodology are acceptable, however it should be noted that a detailed ALC survey, as described, will provide <i>accurate</i> areas of ALC grades, not <i>approximate</i> areas.
Soils, geology and land use survey monitoring plan	Appendix 14A	Natural England advise that a significant omission from the soils SMP is any proposals to conduct a soils resources survey. Sufficient data on soils needs to be gathered to prepare a soil resource plan (different to an ALC survey but data can be gathered simultaneously) in order to inform a Materials Management Plan which can be used as part of the overall development scheme (see p.2 & 13 of <a href="#">Defra Construction Code of Practice for the Sustainable Use of Soil on Development Sites</a> ). This will help ensure that the finite soil resource is treated sustainably.
Recreation survey and monitoring plan	Appendix 21A 2.1.3 & 2.1.5	Natural England advise that it is currently unclear if the studies/surveys will be sufficiently robust to determine likely impacts on bird species as ecological receptors. We note that more detailed work is identified in the biodiversity survey plan (paragraphs 2.12.19 - 2.12.25), but advise that they may be limited in their scope as the core survey area may not cover the full extent to area of risk. This is because the scale for recreational disturbance will depend on how far the workforce travel for recreational activities.
Biodiversity survey and monitoring plan	Appendix 23A 2.8 - 2.9	These sections only detail what surveys have been undertaken to date. Natural England requests details of the proposed future surveys, as it is currently unclear what future surveys are proposed.
Biodiversity survey and monitoring plan	Appendix 23A 2.10 & 2.11	It is noted that minimum survey effort has been applied for bat survey across the site. The methodology proposed would suggest that it is believed that the site has low suitability for bats, and comprises of bat roosts of low significance. Natural England would like clarification on the evidence that has been used to underpin this. In addition, it is currently unclear as to how the site, given its scale, is being viewed as an "ecologically functioning unit for bats". For example, will the proposed survey and monitoring enable determination of key roosting sites, key foraging areas and key commuting routes to those areas, which may also include offsite considerations too (i.e. the wider Zol)?
Biodiversity survey and monitoring plan	Appendix 23A 2.10 & 2.11	It is noted that there is no mention of either the Zol or core sustenance zones for bats, and how this may affect future survey. However, Natural England appreciate that little survey effort has taken place to date and so it may not be possible to give an indication at this time.
Biodiversity survey and monitoring plan	Appendix 23A 2.10.1	It is noted that this section sets out the general methods that will be adopted, and that the detailed application of these methods will be refined to some extent as preliminary survey data becomes available and the bat survey programme evolves. We acknowledge that this approach is appropriate, however we are also unable to fully advise on the suitability of surveys until further data is available.



Biodiversity survey and monitoring plan	Appendix 23A 2.10.13	It is noted that the proposals are to undertake the minimum survey effort for hibernating bats in structures of low potential. Natural England would like clarification on what evidence has been used to assess all structures as having low potential, and details of the internal inspections that have been carried out to date. In addition, for structures with moderate to high potential, it is recommended that static/automated surveys should take place for a minimum of 2 weeks, each month from December to February.
Biodiversity survey and monitoring plan	Appendix 23A 2.10.15	Natural England advise that if a hibernation roost is identified within a structure that is to be demolished, data loggers should be used to record the thermal properties of the structure during the winter. This data can later be used to replicate conditions in any compensation hibernaculum created.
Biodiversity survey and monitoring plan	Appendix 23A 2.10.21	Natural England would like clarification on the plans to survey buildings that have been deemed unsafe to access.
Biodiversity survey and monitoring plan	Appendix 23A 2.10.22	Natural England note that these are preliminary surveys and can therefore take place at any time of the year. However, it should be taken into consideration that, if buildings are large and complex, it may take several hours or more than one visit to thoroughly assess bat potential.
Biodiversity survey and monitoring plan	Appendix 23A 2.10.23	Natural England would like clarification on the use of Infra-red and/or thermal imaging techniques and if this methodology will be used on both built structures and trees.
Biodiversity survey and monitoring plan	Appendix 23A 2.10.24	Natural England advise that the emergence of bats from trees could be missed if surveyors are walking around with infra-red equipment. We recommend that the deployment of cameras at strategic locations may gain better results. However, the exact design of these surveys will be based on the character of the woodland and the suitability for roosting in individual trees.
Biodiversity survey and monitoring plan	Appendix 23A 2.10.28	It is noted that re-entry transect surveys may be applied for trees or built structures with PRFs offering low potential for roosting bats, in place of the standard re-entry survey. We advise that whilst re-entry transect surveys may be carried out as an additional survey, they should not be used to replace emergence/re-entry surveys of buildings.
Biodiversity survey and monitoring plan	Appendix 23A 2.11	Natural England advise that additional surveys of hedgerows and tree lines, not included in the transect surveys, may be required to identify important linear features used by commuting bats that would be impacted by the project.
Biodiversity survey and monitoring plan	Appendix 23A 2.11.5	It is proposed to use only eight static detectors across the site. However, Natural England advise that, given the scale of the development, additional detectors should be deployed.
Biodiversity survey and monitoring plan	Appendix 23A 2.11.5	Natural England advise that detectors should be paired, as using paired detectors helps to overcome any issues with detector failure and may provide an indication of key flight lines (i.e. an indication of how the bats are using the site to get to and from roosts and foraging areas, and identification of key foraging areas and roosting sites.)

Biodiversity survey and monitoring plan	Appendix 23A 2.11.8	It is noted that harp traps will be erected to capture bats in two woodland blocks. Natural England advise that, if it is deemed necessary to trap bats (i.e. the required data cannot be obtained without handling bats), then consideration should be given to radio tagging some of the bats to help to identify foraging and commuting routes or additional roosts.
Biodiversity survey and monitoring plan	Appendix 23A 2.18	Natural England advise that surveys should not be carried out during periods of heavy rain. Ideally, there should be a period of at least five days without rain before surveying commences, to ensure individual otters have the opportunity to traverse their territories again, and allow field signs to be detected.
Biodiversity survey and monitoring plan	Appendix 23A 2.18.3	It is noted within the otter survey methods that evidence of invasive species (particularly mink) will also be recorded. Natural England advise that the results of mink surveys should be included with any water vole survey results.
Biodiversity survey and monitoring plan	Appendix 23A 2.18.5	Natural England advise that, although otter surveys can take place at any time of the year, the optimal survey window is from May to September, when water levels are less variable. The proposed survey time falls outside of this and into the season where water levels are likely to be high and could wash away signs of otter, meaning evidence of presence may be lost
Biodiversity survey and monitoring plan	Appendix 23A 2.19.4	Natural England advise that the timing of the surveys are not in line with the water vole mitigation handbook. The handbook advises two surveys, at least, with the first between mid-May - the end of June and the second from July - September. We note, however, that the location in the south-east means that surveys can reasonably take place from March-October if the conditions are suitable. If the conditions are not suitable then signs of water vole presence can be missed and this should be taken into consideration in the monitoring plan.
Phase 1 habitat Survey and Monitoring Plan (SMP) – offsite Associated Developments	Appendix 23B Table 2.1	Natural England recommend that this table should include Priority Species in the type of data column for legally protected and notable species.
Biodiversity desk study	Appendix 23C Table 3.1 & 4.3	Natural England recommend that Priority Species should be listed in Table 3.1 with legally protected and otherwise notable species as biodiversity receptors. We note that records of these have been returned from EWTBRC and EFC (Table D.3 in Appendix D) and welcome that these are clearly listed in the text in section 4.3 where relevant.
Biodiversity desk study	Appendix 23C Table 4.10	This table has only one row to detail 79 records of water vole over a span of 9 years. Natural England advise that this should be broken down into more detail and a figure to illustrate the location of water vole records should be provided.
Biodiversity desk study	Appendix 23C Appendix F	This appendix is a confidential full list of records provided by EWTBRC and EFC, however no data is provided for review.

Phase 1 habitat survey report	Appendix 23D 2.2 & 3.2.20	<p>It is noted in section 2.2 that this survey was carried out in May and in paragraph 3.2.20 there is mention of shingle which is unvegetated. Natural England advise that that annual vegetation on shingle isn't always visible until July or August, so the presence of vegetated shingle should not be ruled out on the basis of this visit, and it should be ensured that enough data is collected at a better time of year. In addition, with reference to the NVC which is proposed as the main method of capturing habitat data, it should be noted that Vegetated Shingle habitat does not fit well with the NVC. Therefore, additional consideration should be taken when interpreting results, using the classification developed by Sneddon and Randall in the last national shingle survey. Although some years old now (1990), a useful report to review and include as a reference is the section on Bradwell Shell Bank p43 of the Sneddon and Randall England report available at this link:</p> <p><a href="https://hub.jncc.gov.uk/assets/aa6b4652-8944-4c24-8f95-148045d140ce">https://hub.jncc.gov.uk/assets/aa6b4652-8944-4c24-8f95-148045d140ce</a></p>
Phase 1 habitat survey report	Appendix 23D 3.2.41	<p>There is no reference to which hedgerows need to be considered as Priority habitat. Natural England recommend that this section needs to confirm if any hedgerows on the Main development site meet the definition for Priority habitat.</p>

## Annex C:

### AGRICULTURAL LAND CLASSIFICATION (ALC) STRATEGIC MAP INFORMATION – LIKELIHOOD OF BMV AGRICULTURAL LAND DATASET

1. Agricultural Land Classification (ALC) Strategic Map information is based on predicting the likelihood of 'best and most versatile' agricultural land (ALC Grades 1, 2 and 3a) when surveyed at the local level. This is important in a land use planning context as described in the National Planning Policy Framework<sup>3</sup>, particularly where large tracts of Grade 3 land are indicated on published Provisional ALC maps and the extent of 'best and most versatile' agricultural land is currently uncertain. The predictions use soil associations (which are the mapping unit<sup>4</sup> of the published 1:250 000 scale national soil map) as the main basis of the assessment. The map is intended for strategic planning purposes only and is **not** suitable for use below scale 1:250 000 or for the definitive classification of any local area or site.

2. The methodology involves each soil association being systematically assessed on a regional basis in accordance with the current classification criteria (MAFF, 1988<sup>5</sup>) using a combination of ALC data derived from site surveys (post 1988), provisional ALC map data, climatic data and published Soil Survey and Land Research Centre (now National Soil Resources Institute) information, to give an assessment for each of the likely proportion of 'best and most versatile' agricultural land to be encountered, according to the following categories

- Areas where more than 60% of the land is likely to be 'best and most versatile' agricultural land.

**(High likelihood of 'best and most versatile' agricultural land)**

- Areas where 20-60% of the land is likely to be 'best and most versatile' agricultural land.

**(Moderate likelihood of 'best and most versatile' agricultural land)**

- Areas where less than 20% of the land is likely to be 'best and most versatile' agricultural land.

**(Low likelihood of 'best and most versatile' agricultural land)**

3. In order to maintain consistency with the published series of 1:250,000 scale Provisional ALC maps land shown as Grades 1 and 2 are automatically placed in the high likelihood category. Land which cannot be 'best and most versatile' agricultural land due to overall climatic limitations is placed in the low likelihood category.

4. The resulting assessments are mapped using GIS techniques to produce predictive land quality information at 1:250000 scale. The method is designed to allow improvements to the predictions as new data becomes available, for instance new digital datasets (e.g. geology or topography) or ALC site data. It should therefore be viewed as an evolving GIS based system rather than a single one-off map. **The user should ensure that the most up**

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<sup>3</sup> National Planning Policy Framework (March 2012).

<sup>4</sup> There are 296 soil associations in England and Wales. These are shown on a series of 6 regional soil maps produced in 1983 by the Soil Survey of England and Wales (now National Soil Resources Institute, Cranfield University)

<sup>5</sup> *Agricultural Land Classification of England and Wales* (MAFF, 1988)

**to date version of the mapped data is used. For further information on this matter refer to the contact given below.**

5. The data can be used as a companion to the published provisional ALC map series, as the latter will provide a guide to individual ALC grades within each category.

6. The Strategic Map data has a number of limitations which make it best suited for strategic planning rather than detailed site assessment purposes. These are:

- The soil association data at 1:250,000 scale is a relatively crude indicator of agricultural land quality
- The relative lack of (post 1988) ALC site data for some soil associations and its uneven spatial distribution means the allocation to 'best and most versatile' agricultural land categories cannot be completely objective.
- The combination of different data in the production of the Strategic Map, some with different resolutions, means that there may be some compromises with the presentation

7. Where post 1988 field survey data is available, allocation to one of the three categories of 'best and most versatile' agricultural land likelihood is depicted on the basis of actual grades determined from the field survey work. In these areas the 'best and most versatile' agricultural land category is not a prediction of the likelihood of 'best and most versatile' agricultural, but a generalised representation of the actual land quality in the surveyed area.

8. Where recent (post 1988) MAFF ALC field survey data is available, this is the most reliable source of information on land quality. Where this is not available the predictive data provides the best available information on land quality. The data will be most useful at national and regional levels for indicating the general disposition of land quality within that region (e.g. comparing counties and districts with each other.) It will also enable an appreciation of the relative land qualities within districts and around major settlements at a crude level. **It is not suitable for site specific appraisals.** Site specific studies, including new ALC field surveys, will be needed to obtain definitive information on ALC grades for individual sites.

For further Information contact the Natural England Enquiries Service:

Telephone: 0845 600 3078 (local rate)

Email: [enquiries@naturalengland.org.uk](mailto:enquiries@naturalengland.org.uk)

**From:** [North Fambridge Parish Council](#)  
**To:** [BradwellB](#)  
**Cc:** [feedback@bradwellb.co.uk](mailto:feedback@bradwellb.co.uk)  
**Subject:** Response to scoping report and environmental statement  
**Date:** 25 October 2020 12:49:49

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North Fambridge Parish Council would add the following further comments as a consultee:

We comment specifically on transport implications.

Section 3 is the most relevant. Maps are in volume 2 and are also necessary.

There are two areas to consider, one is early years transport and the second is strategic transport which deals with the peak of the development where 500-700 HGV movements per day are predicted during peak construction.

During early years development the existing road networks will be used subject to some further improvement. During the strategic phase there may be additional bypasses provided at particular pinch points.

In the early stage all the returning HGV traffic will come past the entrance to the village. For HGV traffic heading to the site there are two possible routes -one from Maldon through Palepits roundabout to Latchingdon and the other one from South Woodham Ferrers (SWF) via Fambridge and Kitts Hill to Palepits roundabout.

In the strategic phase all HGV traffic will come via SWF. The onwards route has not been finalised at this time. The proposed bypass referenced in the Public Consultation document as option 3 south running between the north of the village and the B1010 i.e. across Rookery Road is no longer being considered. In the strategic route as now proposed there is no provision for the village entrance to be bypassed. This means that both options 2 and 3 in the Public Consultation are discounted. Everything will come past North Fambridge.

From North Fambridge the route goes either over Kitts Hill or along the Lower Burnham Road and then through a new road to join up with the B1018 bypassing Latchingdon. Whichever route is taken all the traffic will come past the village entrance which will be subject to improvement. That may involve compulsory purchase of land.

North Fambridge will have an additional 120 plus houses entailing further car movements via the entrance to the village. This entrance to the village is an accident hazard spot and will require considerable engineering to solve the problem. Lorries already struggle to get up Kitts Hill; this is an environmentally unsound route. The bends included in search area D by Wenbar Plastics are said to be subject to improvement but to accommodate large HGVs considerable improvement will be needed with compulsory purchase. Everytime a lorry or slow moving vehicle comes past the village entrance there are long tailbacks making it difficult to turn left or right from the village entrance. 500-700 lorry movements a day would cause significant tailbacks past the village entrance. The removal of proposed Option2 which would have solved all of the above problems is deplored.

The implications for South Woodham Ferrers are equally regrettable. The proposed development in SWF will require pedestrian crossings and entry points across the A132. There is already concern about the backing up of traffic in both directions due to this development adding HGV traffic will mean considerable delays. Furthermore there is limited availability to widen the existing roads without compulsory

purchase.

Christine Wakeling  
Clerk to North Fambridge Parish Council



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Our Ref: 55300

FREEPOST Bradwell B Consultation

6<sup>th</sup> November 2020

Dear Sir/Madam,

**Nationally Significant Infrastructure Project  
Bradwell B Project  
Stage One Consultation**

Thank you for including Public Health England (PHE) in the first 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.

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

**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. The attached appendix summarises PHE's requirements and recommendations regarding the content of and methodology used in preparing the ES. Please note that where impacts relating to health and/or further assessments are scoped out, promoters should fully explain and justify this within the submitted documentation.

### **Recommendation**

While we would agree that the individual air quality impact of generators up to 3MW may be minor when compared to the main boiler or stand-by generators, multiple generators up to this size could have an appreciable cumulative impact. We would support an attempt to estimate the cumulative impact of such generators across the site, if only to provide evidence to scope them out. There may be the potential for appreciable pollutant emissions from the routine testing of the stand-by diesel generators. We would welcome consideration of this in the air quality assessment.

Our position is that pollutants associated with road traffic or combustion, 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.

As highlighted in our pre-scoping response, the applicant 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.

### **Health and Wellbeing**

This section of PHE's 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. PHE has focused its 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
- Land Use
- Socioeconomic

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

### **Cross referencing of health impacts across chapters**

Human health is affected by several wider determinants of health. Although paragraph 11.1.16 highlights chapters with project impacts that may affect human health, this is not consistently cross referenced across the report. For example: chapter 6, paragraph 6.16 does not include human health.

## **Recommendation**

To ensure health and wellbeing is considered consistently through the ES, there should be cross referencing to Chapter 11: Human Health in all chapters listed in paragraph 11.1.16.

## **Access, traffic and transport and land use**

The Design Manual for Roads and Bridges (DMRB) LA112: Population and Human Health provides a good framework for assessing, mitigating and reporting the effects of motorway and all-purpose trunk road projects on population and health. The methodology introduces significance criteria that aid consistent and proportionate assessment to support the reporting of significant effects of population and human health and is useful to apply to projects such as this. This is because the framework provides a process for developing a health baseline; assessment criteria; and a mitigation hierarchy to be implemented.

According to LA112, the following indicative types of health determinants shall be identified to inform the baseline scenario:

1. the location and type of community, recreational and education facilities and severance/separation of communities from such facilities;
2. the location of green/open space and severance/separation of communities from such facilities;
3. the location of healthcare facilities and severance/separation of communities from such facilities;
4. outline spatial characteristics of the transport network and usage in the area, including the surrounding road network, Public Rights of Way (including bridleways), cycle ways, non-designated public routes and public transport routes;
5. air quality management areas and ambient air quality;
6. areas recognised as being sensitive to noise (e.g. noise important areas, noise management areas) and the ambient noise environment;
7. sources and pathways of potential pollution (e.g. land/water contamination);
8. landscape amenity;
9. safety information associated with the existing affected road network (e.g. numbers of killed and seriously injured); and
10. where available, information collated from stakeholder consultation.

## **Recommendation**

The assessment methodology provided by The Design Manual for Roads and Bridges (DMRB) LA112: Population and Human Health shall be used to assess the impact of the development on human health. In relation to baseline data you should review, as a minimum, local data and public health reports published by the local Director of Public Health, the Joint Strategic Needs Assessment (JSNA), Health and Wellbeing Board strategies or plans, Clinical Commissioning Groups (CCG) / National Health Service (NHS) strategy or plans and the PHE fingertips data. This should be supported by liaison directly with the Director of Public Health, CCGs and NHS to assist in the drafting of the ES. It is also vital that information received through community engagement forms part of the assessment.

## **Mental Health**

There should be 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.

## **Recommendation**

The [Mental Well-being Impact Assessment \(MWIA\)](#), could be used as a methodology. The assessment should identify vulnerable populations and provide clear mitigation strategies that are adequately linked to any local services or assets.

## **Socioeconomics, vulnerable populations and health inequality**

Chapter 10: socioeconomics, does not consider the potential effect of the project on health inequality and health. Any evidence on deprivation, socioeconomics and health must be cross referenced to Chapter 11: Human Health as the two are inextricably linked. The differential impact of the project on populations must be examined, along with consideration of how people will be affected across the life course. An approach to the identification of vulnerable populations has not been provided and does not make links to the list of protected characteristics within an Equality Impact Assessment (EqIA). The impacts on health and wellbeing and health inequalities of the scheme may have a particular effect on vulnerable or disadvantaged populations, including those that fall within the list of protected characteristics.

## **Recommendation**

The ES should clearly identify the range of vulnerable populations that have been considered within the assessment. The findings should be cross referenced across the ES to ensure the comprehensive assessment of potential impacts for health and inequalities and where resulting mitigation measures are mutually supportive.

The final ES should therefore include suitable and sufficient data to identify the populations at risk, vulnerable populations, baseline data, assessment of significance, mitigation measures and proposals for monitoring.

Yours faithfully,

For and on behalf of Public Health England  
[nsipconsultations@phe.gov.uk](mailto:nsipconsultations@phe.gov.uk)

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

## **Appendix: PHE recommendations regarding the scoping document**

### **Introduction**

The Planning Inspectorate's Advice Note 11: Working with Public Bodies covers many of the generic points of interaction relevant to the Planning Inspectorate and Public Health England (PHE). The purpose of this Annex is to help applicants understand the issues that PHE expect to see addressed by applicants preparing an Environmental Statement (ES) as part of their Nationally Significant Infrastructure Planning (NSIP) submission.

We have included a comprehensive outline of the type of issues we would expect to be considered as part of an NSIP which falls under the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations). PHE encourages applicants to contact us as early in the process as possible if they wish to discuss or clarify any matters relating to chemical, poison, radiation or wider public health.

### **General Information on Public Health England**

Public Health England exists to protect and improve the nation's health and wellbeing, and reduce health inequalities. We do this through world-leading science, research, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. We are an executive agency of the Department of Health and Social Care, and a distinct delivery organisation with operational autonomy. We provide government, local government, the NHS, Parliament, industry and the public with evidence-based professional, scientific and delivery expertise and support.

### **PHE's NSIP related roles and responsibilities and geographical extent**

PHE is a statutory consultee in the NSIP process for any *applications likely to involve chemicals, poisons or radiation which could potentially cause harm to people and are likely to affect significantly public health*.<sup>1</sup> PHE will consider the potential significant effects (direct and indirect) of a proposed development on population and human health and the impacts from chemicals, radiation and environmental hazards.

Under certain circumstances PHE may provide comments on ionising radiation to/on behalf of the Scottish Parliament. If a proposer is submitting a planning application in Scotland which may require advice on radiation you are recommended to contact the appropriate Scottish Planning Authority for advice on how to proceed.

In the case of applications in Wales, PHE remains a statutory consultee but the regime applies to a more limited range of development types. For NSIP applications likely to affect land in Wales, an applicant should still consult PHE but, additionally will be required to consult the Welsh Ministers.

### **Role of Public Health England and NSIP with respect to Environmental Impact Assessments**

PHE has a statutory role as a consultation body under the EIA Regulations. Where an applicant has requested a scoping opinion from the Planning Inspectorate<sup>2</sup> in relation to a proposed NSIP, PHE will be consulted by the Planning Inspectorate about the scope, and level of detail, of the information to be provided in the ES and will be under a duty to make information available to the applicant. PHE's standard recommendations in response to EIA scoping consultations are below.

PHE also encourages applicants to discuss with them the scope of the ES at an early stage to explore, for example, whether careful site selection or other design issues could minimise or eliminate public health impacts or to outline the requirement for, scope and methodology of any assessments related to public health.

### **PHE's recommendations to applicants regarding Environmental Impact Assessments** **General approach**

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<sup>1</sup> The Infrastructure Planning (Interested Parties and Miscellaneous Prescribed Provisions) Regulations 2015

<sup>2</sup> The scoping process is administered and undertaken by the Planning Inspectorate on behalf of the Secretary of State

**Applicants are reminded that Section 5(2)(a) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 specifically includes a requirement that the EIA must identify, describe and assess in an appropriate manner, in light of each individual case, the direct and indirect significant effects of the proposed development on population and human health.**

PHE is of the opinion that this requirement encompasses the wider determinants of public health, as well as chemicals, poisons and radiation. Further information on PHE's recommendations and requirements is included below.

It is the role of the applicant to prepare the ES. PHE provides advice relating to EIA within this document and during the NSIP consultation stages.

When preparing an ES the applicant should give consideration to best practice guidance such as the Government's Handbook for scoping projects: environmental impact assessment<sup>3</sup>, IEMA Guide to Delivering Quality Developments<sup>4</sup>, and Guidance: on Environmental Impact Assessment<sup>5</sup>

The Planning Inspectorate's Advice Note Seven: Environmental Impact Assessment: Process, Preliminary Environmental Information and Environmental Statements also provide guidance to applicants and other persons with interest in the EIA process as it relates to NSIPs.

It is important that the submitted ES identifies and assesses the potential public health impacts of the activities at, and emissions from, the development.

PHE understands that there may be separate sections of the ES covering the assessment of impacts on air, land, water and so on, but expects an ES to include a specific section summarising potential impacts on population and health. This section should bring together and interpret the information from other assessments as necessary. The health and population impacts section should address the following steps.

1. Screening: Identify and significant effects.
  - a. Summarise the methodologies used to identify health impacts, assess significance and sources of information
  - b. Evaluate any reference standards used in carrying out the assessment and in evaluating health impacts (e.g., environmental quality standards)
  - c. Where the applicant proposes the 'scoping out' of any effects, a clear rationale and justification should be provided along with any supporting evidence.
2. Baseline Survey:
  - a. Identify information needed and available, evaluate quality and applicability of available information
  - b. Undertake assessment
3. Alternatives:
  - a. Identify and evaluate any realistic alternative locations, routes, technology etc.
4. Design and assess possible mitigation
  - a. Consider and propose suitable corrective actions should mitigation measures not perform as effectively predicted.

<sup>3</sup> <https://www.gov.uk/government/publications/handbook-for-scoping-projects-environmental-impact-assessment>

<sup>4</sup> <https://www.iema.net/assets/newbuild/documents/Delivering%20Quality%20Development.pdf>

<sup>5</sup> <https://www.gov.uk/guidance/environmental-impact-assessment#the-purpose-of-environmental-impact-assessment>

5. Impact Prediction: Quantify and Assess Impacts:
  - a. Evaluate and assess the extent of any positive and negative effects of the development. Effects should be assessed in terms of likely health outcomes, including those relating to the wider determinants of health such as socio-economic outcomes, in addition to health outcomes resulting from exposure to environmental hazards. Mental health effects should be included and given equivalent weighting to physical effects.
  - b. Clearly identify any omissions, uncertainties and dependencies (e.g., air quality assessments being dependant on the accuracy of traffic predictions)
  - c. Evaluate short-term impacts associated with the construction and development phase
  - d. Evaluate long-term impacts associated with the operation of the development
  - e. Evaluate any impacts associated with decommissioning
  - f. Evaluate any potential cumulative impacts as a result of the development, currently approved developments which have yet to be constructed, and proposed developments which do not currently have development consent
  
6. Monitoring and Audit (not a statutory requirement)
  - a. Identify key modelling predictions and mitigation impacts and consider implementing monitoring and audit to assess their accuracy / effectiveness.

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 applicant should fully explain and justify their rationale in the submitted documentation.

Consideration of alternatives (including alternative sites, choice of process, and the phasing of construction) is widely regarded as good practice. Ideally, the EIA process should start at the stage of site 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 ES<sup>6</sup>.

### **Human and environmental receptors**

The applicant 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.

Identify and consider impacts on residential areas and sensitive receptors (such as schools, nursing homes and healthcare facilities, as well as other vulnerable population groups such as those who are young, older, with disabilities or long-term conditions, or on low incomes) in the area(s) which may be affected by emissions, this should include consideration of any new receptors arising from future development

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 or activities due to construction and decommissioning should consider potential impacts on all receptors and describe monitoring and

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<sup>6</sup> DCLG guidance, 1999 <http://www.communities.gov.uk/documents/planningandbuilding/pdf/155958.pdf>

mitigation during these phases. Construction and decommissioning will be associated with vehicle movements and cumulative impacts should be accounted for.

We would expect the applicant to follow best practice guidance during all phases from construction to decommissioning to ensure appropriate measures are in place to mitigate any potential negative impact on health from emissions (point source, fugitive and traffic-related) and activities. An effective Construction Environmental Management Plan (CEMP) (and Decommissioning Environmental Management Plan (DEMP)) will help provide reassurance that activities are well managed. The applicant should ensure that there are robust mechanisms in place to respond to any complaints made during construction, operation, and decommissioning of the facility.

### **Emissions to air and water**

Significant impacts are unlikely to arise from industrial 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 the assessment of emissions from any type of development in order that the ES 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
- encompass the combined impacts of all pollutants which may be emitted by the development with all pollutants arising from associated development and transport, considered in a single holistic assessment (ie, of overall impacts)
- include Chemical Abstract Service (CAS) numbers alongside chemical names, where referenced in the ES
- consider the construction, operational, and decommissioning phases
- 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
- fully account for fugitive emissions
- include appropriate estimates of background levels
  - when assessing the human health risk of a chemical emitted from a facility or operation, background exposure to the chemical from other sources should be taken into account
- identify cumulative and incremental impacts (ie, 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 (ie, rail, sea, and air)
- include consideration of local authority, Environment Agency, Natural Resources Wales, Defra national network, and any other local site-specific sources of monitoring data
- compare predicted environmental concentrations to the applicable standard or guideline value for the affected medium. Where available, the most recent UK standards for the appropriate media (ie, 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, use those recommended by the European Union or World Health Organization:
  - If no standard or guideline value exists, the predicted exposure to humans should be estimated and compared to an appropriate health-based value (eg, a Tolerable Daily Intake or equivalent)
  - This should consider all applicable routes of exposure (eg, include consideration of aspects such as the deposition of chemicals emitted to air and their uptake via ingestion)
- 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) approach is used

- 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 (eg, 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 applicant 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. Further to assessments of compliance with limit values, for non-threshold pollutants (ie, those that have no threshold below which health effects do not occur) the **benefits** of development options which reduce population exposure should be evaluated.

#### *Additional points specific to emissions to air*

When considering baseline conditions (of existing air quality) and 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)
- modelling using appropriate meteorological data (i.e. come from the nearest suitable meteorological station and include a range of years and worst-case conditions)
- modelling taking into account local topography, congestion and acceleration
- evaluation of the public health **benefits** of development options which reduce air pollution – even below limit values – as pollutants such as nitrogen dioxide and particulate matter show no threshold below which health effects do not occur

#### *Additional points specific to emissions to water*

When considering baseline conditions (of existing water quality) and the assessment and future monitoring of impacts, these should:

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

### **Land quality**

We would expect the applicant to provide details of any hazardous contamination present on site (including ground gas) as part of a 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 assessed<sup>7</sup> and the potential impact on nearby receptors and control and mitigation measures should be outlined.

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

For wastes arising from the development the ES should assess:

- 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

If the development includes wastes delivered to the installation:

- Consider issues associated with waste delivery and acceptance procedures (including delivery of prohibited wastes) and should assess potential off-site impacts and describe their mitigation

## **Other aspects**

Within the ES, PHE would expect to see information about how the applicant 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.

PHE would expect the applicant to consider 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: both in terms of their applicability to the development itself, and the development's potential to impact on, or be impacted by, any nearby installations themselves subject to 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 report<sup>8</sup>, jointly published by Liverpool John Moores University and the Health Protection Agency (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 ES' as good practice.

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<sup>7</sup> 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)

<sup>8</sup> Available from: <http://www.cph.org.uk/wp-content/uploads/2012/08/health-risk-perception-and-environmental-problems--summary-report.pdf>

## **Electromagnetic fields (EMF)**

This advice relates to 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 on the Gov.UK website.<sup>9</sup>

There is a potential health impact associated with the electric and magnetic fields around substations, overhead power lines and underground cables. The field strengths tend 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**

A voluntary code of practice is published which sets out key principles for complying with the ICNIRP guidelines.<sup>10</sup>

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.<sup>11, 12</sup>

### **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, based on an accompanying comprehensive review of the scientific evidence, was published in 2004 by the National Radiological Protection Board (NRPB), one of PHE's predecessor organisations<sup>13</sup>

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 as expressed in the 1999 EU Council Recommendation on limiting exposure of the general public (1999/519/EC):<sup>14</sup>

### **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 electric fields. The ICNIRP guidelines published in

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<sup>9</sup> <https://www.gov.uk/government/collections/electromagnetic-fields#low-frequency-electric-and-magnetic-fields>

<sup>10</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/37447/1256-code-practice-emf-public-exp-guidelines.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/37447/1256-code-practice-emf-public-exp-guidelines.pdf)

<sup>11</sup> [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/48309/1255-code-practice-optimum-phasing-power-lines.pdf)

<sup>12</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/224766/powerlines\\_vcop\\_microshocks.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/224766/powerlines_vcop_microshocks.pdf)

<sup>13</sup>

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

<sup>14</sup> [http://webarchive.nationalarchives.gov.uk/+www.dh.gov.uk/en/PublicHealth/Healthprotection/DH\\_4089500](http://webarchive.nationalarchives.gov.uk/+www.dh.gov.uk/en/PublicHealth/Healthprotection/DH_4089500)

1998 give reference levels for public exposure to 50 Hz electric and magnetic fields, and these are respectively  $5 \text{ kV m}^{-1}$  (kilovolts per metre) and  $100 \text{ }\mu\text{T}$  (microtesla). The reference level for magnetic fields changes to  $200 \text{ }\mu\text{T}$  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 underlying 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)**

The Stakeholders Advisory Group on ELF EMF's (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:<sup>15</sup>

Relevant here is SAGE's 2007 First Interim Assessment, which makes several recommendations concerning high voltage power lines. Government supported the implementation of low cost options such as optimal phasing to reduce exposure; however it did not support the option of creating corridors around power lines in which development would be restricted 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 on the national archive website.<sup>16</sup>

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

### **Ionising 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 Protection<sup>17</sup> (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 Standards<sup>18</sup> (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.

As part of the EIA process PHE expects applicants 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

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<sup>15</sup> <http://www.emfs.info/policy/sage/>

<sup>16</sup>

[http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH\\_107124](http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_107124)

<sup>17</sup> These recommendations are given in publications of the ICRP notably publications 90 and 103 see the website at <http://www.icrp.org/>

<sup>18</sup> 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.

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, as part of the EIA process, 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 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 calculated<sup>19</sup>.

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'<sup>20</sup>

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, undertaken as part of the EIA, 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 facilities<sup>21</sup>. 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.

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<sup>19</sup> 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>

<sup>20</sup> 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](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/296390/geho1202bklh-e-e.pdf)

<sup>21</sup> HPA RCE-8, Radiological Protection Objectives for the Land-based Disposal of Solid Radioactive Wastes, February 2009

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.

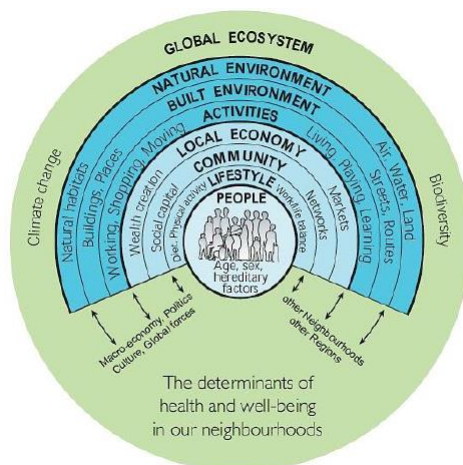
For inadvertent intrusion, the dose if the intrusion occurs should be presented. It is recommended that the post-closure phase be considered as a series of timescales, with the approach changing from more quantitative to more qualitative as times further in the future are considered.

The level 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.

### Wider Determinants of Health

World Health Organization (WHO's) defines health as "a state of complete physical, mental and social well-being and not merely an absence of disease or infirmity" (WHO, 1948).

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.



Barton and Grant<sup>22</sup>

PHE recognises that evaluating an NSIP's impacts on health through the wider determinants is more complex than assessing a project's direct impacts against clearly defined regulatory protections (e.g. protected species). However, this does not mean that their assessment should be side-lined; with the 2017 EIA Regulations clarifying that the likely significant effects of a development proposal on human health must be assessed.

We accept that the relevance of these topics and associated impacts will vary depending on the nature of the proposed development and in order to assist applicants PHE has focused its approach on scoping determinants of health and wellbeing under four themes, which have been derived from

<sup>22</sup> Barton H, Grant M. A health map for the local human habitat. The Journal of the Royal Society for the Promotion of Health 2006; 126(6): 252-3.

an analysis of the wider determinants of health mentioned in the National Policy Statements. PHE has developed a list of 21 determinants of health and wellbeing under four broad themes, which have been derived from an analysis of the wider determinants of health mentioned in the National Policy Statements (NPS). If the applicant proposes to scope any areas out of the assessment, they should provide clear reasoning and justification.

The four themes are:

- Access
- Traffic and Transport
- Socioeconomic
- Land Use

### **Methodology**

PHE will expect assessments to set out the methodology used to assess each determinant included in the scope of the assessment. In some instances, the methodologies described may be established and refer to existing standards and/or guidance. In other instances, there may be no pre-defined methodology, which can often be the case for the wider determinants of health; as such there should be an application of a logical impact assessment method that:

- identifies effected populations vulnerable to impacts from the relevant determinant
- establishes the current baseline situation
- identifies the NSIP's potential direct and indirect impacts on each population
- if impacts are identified, evaluates whether the potential impact is significant in relation to the affected population
- identifies appropriate mitigation to minimise impacts or the subsequent effects on health
- identifies opportunities to achieve benefits from the scheme
- identifies appropriate monitoring programmes

Currently there is no standard methodology for assessing the population and human health effects of infrastructure projects, but a number of guides exist, including:

- Institute of Environmental Management and Assessment, 2017: Health in Environmental Assessment, a primer for a proportionate approach;
- NHS London Healthy Urban Development Unit (HUDU), 2015. Healthy Urban Planning Checklist and Rapid Health Impact Assessment Tool;
- Wales Health Impact Assessment Unit, 2012: HIA a practical guide;
- National Mental Wellbeing Impact Assessment Development Unit 2011: Mental Wellbeing Impact Assessment Toolkit;

### **Determining significant effects**

Neither the EIA regulations nor the National Policy Statements provide a definition of what constitutes a 'significant' effect, and so PHE have derived a list of factors which it will take into consideration in the assessment of significance of effects, as outlined below. These list of factors should be read in conjunction with guidance above.

#### **1. Sensitivity:**

Is the population exposed to the NSIP at particular risk from effects on this determinant due to pre-existing vulnerabilities or inequalities (for example, are there high numbers in the local population of people who are young, older, with disabilities or long-term conditions, or on a low income)? Will the NSIP widen existing inequalities or introduce new inequalities in relation to this determinant?

#### **2. Magnitude:**

How likely is the impact on this determinant to occur? If likely, will the impact affect a large number of people / Will the impact affect a large geographic extent? Will the effects be frequent or continuous? Will the effects be temporary or permanent and irreversible?

#### **3. Cumulative effects:**



Will the NSIP's impacts on this determinant combine with effects from other existing or proposed NSIPs or large-scale developments in the area, resulting in an overall cumulative effect different to that of the project alone?

What are the cumulative effects of the impacts of the scheme on communities or populations. Individual impacts individually may not be significant but in combination may produce an overall significant effect.

**4. Importance:**

Is there evidence for the NSIP's effect on this determinant on health? Is the impact on this determinant important in the context of national, regional or local policy?

**5. Acceptability:**

What is the local community's level of acceptance of the NSIP in relation to this determinant? Do the local community have confidence that the applicants will promote positive health impacts and mitigate against negative health effects?

**6. Opportunity for mitigation:**

If this determinant is included in the scope for the EIA is there an opportunity to enhance any positive health impacts and/or mitigate any negative health impacts?

## **Scoping**

The scoping report may determine that some of the wider determinants considered under human and population health can be scoped out of the EIA. If that, should be the case, detailed rationale and supporting evidence for any such exclusions must be provided. PHE will expect an assessment to have considered all of the determinants listed in Table1 of Appendix 1 as a minimum.

## **Vulnerable groups**

Certain parts of the population may experience disproportionate negative health effects as a result of a development. Vulnerable populations can be identified through research literature, local population health data or from the identification of pre-existing health conditions that increase vulnerability.

The health and wellbeing and health inequalities of the scheme will have particular effect on vulnerable or disadvantaged populations, including those that fall within the list of protected characteristics. Some protected groups are more likely to have elevated vulnerability associated with social and economic disadvantages. Consideration should be given to language or lifestyles that influence how certain populations are affected by impacts of the proposal, for example non-English speakers may face barriers to accessing information about the works or expressing their concerns.

Equality Impact Assessments (EqIA) are used to identify disproportionate effects on Protected Groups (defined by the Equality Act, 2010), including health effects. The assessments and findings of the Environmental Statement and the EqIA should be cross reference between the two documents, particularly to ensure the assessment of potential impacts for health and inequalities and that resulting mitigation measures are mutually supportive.

*The Wales Health Impact Assessment Support Unit (WHIASU), provides a suggested list of vulnerable groups*

*Age related groups*

- Children and young people
- Older people

*Income related groups*

- People on low income
- Economically inactive

- Unemployed/workless
- People who are unable to work due to ill health

*Groups who suffer discrimination or other social disadvantage*

- People with physical or learning disabilities/difficulties
- Refugee groups
- People seeking asylum
- Travellers
- Single parent families
- Lesbian and gay and transgender people
- Black and minority ethnic groups
- Religious groups

*Geographical groups*

- People living in areas known to exhibit poor economic and/or health indicators
- People living in isolated/over-populated areas
- People unable to access services and facilities

**Mental health**

PHE supports the use of the broad definition of health proposed by the World Health Organisation (WHO). Mental well-being 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. NSIP schemes can be of such scale and nature that will impact on the over-arching protective factors, which are:

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

There should be 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. The **Mental Well-being Impact Assessment (MWIA)** could be used as a methodology. The assessment should identify vulnerable populations and provide clear mitigation strategies that are adequately linked to any local services or assets

Perceptions about the proposed scheme may increase the risk of anxiety or health effects by perceived effects. “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.

**Evidence base and baseline data**

An assessment should be evidence based, using published literature to identify determinants and likely health effects. The strength of evidence identifying health effects can vary, but where the evidence for an association is weak it should not automatically be discounted.

There will be a range of publicly available health data including:

- National datasets such as those from the Office of National Statistics,
- Public Health England (PHE), including the fingertips data sets,
- Non-governmental organisations,
- Local public health reports, such as the Joint Strategic Needs Assessment, Health and Wellbeing Strategies;
- Consultation with local authorities, including local authority public health teams;
- Information received through public consultations

**Mitigation**

If the assessment has identified that significant negative effects are likely to occur with respect to the wider determinants of health, the assessment should include a description of planned mitigation measures the applicant will implement to avoid or prevent effects on the population.



Mitigation and/or monitoring proposals should be logical, feasible and have a clear governance and accountability framework indicating who will be responsible for implementation and how this will be secured during the construction and/or operation of the NSIP.

### **Positive benefits from the scheme**

The scale of many NSIP developments will generate the potential for positive impacts on health and wellbeing; however, delivering such positive health outcomes often requires specific enabling or enhancement measures. For example, the construction of a new road network to access an NSIP site may provide an opportunity to improve the active transport infrastructure for the local community. PHE expects developments to consider and report on the opportunity and feasibility of positive impacts. These may be stand alone or be considered as part of the mitigation measures.

### **Monitoring**

PHE expects an assessment to include consideration of the need for monitoring. It may be appropriate to undertake monitoring where:

- Critical assumptions have been made
- There is uncertainty about whether negative impacts are likely to occur as it may be appropriate to include planned monitoring measures to track whether impacts do occur.
- There is uncertainty about the potential success of mitigation measures
- It is necessary to track the nature of the impact and provide useful and timely feedback that would allow action to be taken should negative impacts occur

### **How to contact PHE**

If you wish to contact us regarding an existing or potential NSIP application please email: [nsipconsultations@phe.gov.uk](mailto:nsipconsultations@phe.gov.uk)

[Appendix 1](#)

[Table 1 – Wider determinants of health and wellbeing](#)

<b>Health and wellbeing themes</b>			
Access	Traffic and Transport	Socioeconomic	Land Use
<b>Wider determinants of health and wellbeing</b>			
<p>Access to :</p> <ul style="list-style-type: none"> <li>• local public and key services and facilities.</li> <li>• Good quality affordable housing.</li> <li>• Healthy affordable food.</li> <li>• The natural environment.</li> <li>• The natural environment within the urban environment.</li> <li>• Leisure, recreation and physical activities within the urban and natural environments.</li> </ul>	<ul style="list-style-type: none"> <li>• Accessibility.</li> <li>• Access to/by public transport.</li> <li>• Opportunities for access by cycling and walking.</li> <li>• Links between communities.</li> <li>• Community severance.</li> <li>• Connections to jobs.</li> <li>• Connections to services, facilities and leisure opportunities.</li> </ul>	<ul style="list-style-type: none"> <li>• Employment opportunities, including training opportunities.</li> <li>• Local business activity.</li> <li>• Regeneration.</li> <li>• Tourism and leisure industries.</li> <li>• Community/social cohesions and access to social networks.</li> <li>• Community engagement.</li> </ul>	<ul style="list-style-type: none"> <li>• Land use in urban and/or /rural settings.</li> <li>• Quality of Urban and natural environments</li> </ul>

1) **Access**

- a. Access to local, public and key services and facilities  
 Access to local facilities can increase mobility and social participation. Body mass index is significantly associated with access to facilities, including factors such as the mix and density of facilities in the area. The distance to facilities has no or only a small effect on walking and other physical activities. Access to recreational facilities can increase physical activity, especially walking for recreation, reduce body weight, reduce the risk of high blood pressure, and reduce the number of vehicle trips, the distances travelled and greenhouse gas emissions.

Local services include health and social care, education, employment, and leisure and recreation. Local facilities include community centres, shops, banks/credit unions and Post Offices. Services and facilities can be operated by the public, private and/or voluntary sectors. Access to services and facilities is important to both physical and mental health and wellbeing. Access is affected by factors such as availability, proximity to people’s place of residence, existence of transport services or active

travel infrastructure to the location of services and facilities, and the quality of services and facilities.

The construction or operation of an NSIP can affect access adversely: it may increase demand and therefore reduce availability for the existing community; during construction, physical accessibility may be reduced due to increased traffic and/or the blockage of or changes to certain travel routes. It is also possible that some local services and facilities are lost due to the land-take needed for the NSIP.

Conversely if new routes are built or new services or facilities provided the NSIP may increase access. NSIPs relating to utilities such as energy and water can maintain, secure or increase access to those utilities, and thereby support health and wellbeing.

b. Access to good-quality affordable housing

Housing refurbishment can lead to an improvement in general health and reduce health inequalities. Housing improvements may also benefit mental health. The provision of diverse forms and types of housing is associated with increased physical activity. The provision of affordable housing is strongly associated with improved safety perceptions in the neighbourhood, particularly among people from low-income groups. For vulnerable groups, the provision of affordable housing can lead to improvements in social, behavioural and health related outcomes. For some people with long term conditions, the provision of secure and affordable housing can increase engagement with healthcare services, which can lead to improved health-related outcomes. The provision of secure and affordable housing can also reduce engagement in risky health-related behaviours. For people who are homeless, the provision of affordable housing increases engagement with healthcare services, improves quality of life and increases employment, and contributes to improving mental health.

Access to housing meets a basic human need, although housing of itself is not necessarily sufficient to support health and wellbeing: it is also important that the housing is of good quality and affordable. Factors affecting the quality of housing include energy efficiency (eg effective heating, insulation), sanitation and hygiene (eg toilet and bathroom), indoor air quality including ventilation and the presence of damp and/or mould, resilience to climate change, and overcrowding. The affordability of housing is important because for many people, especially people on a low income, housing will be the largest monthly expense; if the cost of housing is high, people may not be able to meet other needs such as the need for heating in winter or food. Some proposals for NSIPs include the provision of housing, which could be beneficial for the health and wellbeing of the local population. It is also possible that some housing will be subject to a compulsory purchase order due to the land-take needed for an NSIP.

c. Access to affordable healthy food

Access to healthy food is related to the provision of public and active transport infrastructure and the location and proximity of outlets selling healthier food such as fruit and vegetables. For the general population, increased access to healthy, affordable food through a variety of outlets (shops, supermarkets, farmers' markets and community gardens) is associated with improved dietary behaviours, including attitudes towards healthy eating and food purchasing behaviour, and improved adult weight. Increased access to unhealthier food retail outlets is associated with increased weight in the general population and increased obesity and unhealthy eating behaviours among children living in low-income areas. Urban agriculture can improve attitudes towards healthier food and increase fruit and vegetable consumption.

Factors affecting access to healthy affordable food include whether it is readily available from local shops, supermarkets, markets or delivery schemes and/or there

are opportunities to grow food in local allotments or community gardens. People in environments where there is a high proportion of fast food outlets may not have easy access to healthy affordable food.

d. Access to the natural environment

Availability of and access to safe open green space is associated with increased physical activity across a variety of behaviours, social connectedness, childhood development, reduced risk of overweight and obesity and improved physical and mental health outcomes. While the quantity of green space in a neighbourhood helps to promote physical activity and is beneficial to physical health, eg lower rates of mortality from cardiovascular disease and respiratory disease in men, the availability of green environments is likely to contribute more to mental health than to physical health: the prevalence of some disease clusters, particularly anxiety and depression, is lower in living environments which have more green space within a 1-km radius.

The proximity, size, type, quality, distribution, density and context of green space are also important factors. Quality of green space may be a better predictor of health than quantity, and any type of green space in a neighbourhood does not necessarily act as a venue for, or will encourage, physical activity. 'Walkable' green environments are important for better health, and streetscape greenery is as strongly related to self-reported health as green areas. Residents in deprived areas are more likely to perceive access to green space as difficult, to report poorer safety, to visit the green space less frequently and to have lower levels of physical activity. The benefits to health and wellbeing of blue space include lower psychological distress.

The natural environment includes the landscape, waterscape and seascape. Factors affecting access include the proximity of the natural environment to people's place of residence, the existence of public transport services or active travel infrastructure to the natural environment, the quality of the natural environment and feelings of safety in the natural environment. The construction of an NSIP may be an opportunity to provide green and/or blue infrastructure in the local area. It is also possible that green or blue infrastructure will be lost due to the land-take needed for the NSIP.

e. Access to the natural environment within the urban environment

Public open spaces are key elements of the built environment. Ecosystem services through the provision of green infrastructure are as important as other types of urban infrastructure, supporting physical, psychological and social health, although the quality and accessibility of green space affects its use, C19, ethnicity and perceptions of safety. Safe parks may be particularly important for promoting physical activity among urban adolescents. Proximity to urban green space and an increased proportion of green space are associated with decreased treatment of anxiety/mood disorders, the benefits deriving from both participation in usable green space near to home and observable green space in the neighbourhood. Urban agriculture may increase opportunities for physical activity and social connections.

A view of 'greenery' or of the sea moderates the annoyance response to noise. Water is associated with positive perceptive experiences in urban environments, with benefits for health such as enhanced contemplation, emotional bonding, participation and physical activity. Increasing biodiversity in urban environments, however, may promote the introduction of vector or host organisms for infectious pathogens, eg green connectivity may potentiate the role of rats and ticks in the spread of disease, and bodies of water may provide habitats for mosquitoes. Owing to economic growth, population size and urban and industrial expansion in the EU, to maintain ecosystem services at 2010 levels, for every additional percentage increase in the proportion of 'artificial' land, there needs to be a 2.2% increase in green infrastructure.

The natural environment within the urban environment includes the provision of green

space and blue space in towns and cities. Factors involved in access include the proximity of the green and/or blue space to people's place of residence, the existence of transport services or active travel infrastructure to the green and/or blue space, the quality of the green and/or blue space and feelings of safety when using the green and/or blue space. The construction of an NSIP may be an opportunity to provide green and/or blue infrastructure in the local urban environment. It is also possible that green or blue infrastructure in the urban environment will be lost due to the land-take needed for the NSIP.

- f. Access to leisure, recreation and physical activity opportunities within the urban and natural environments.

Access to recreational opportunities, facilities and services is associated with risk factors for long-term disease; it can increase physical activity, especially walking for recreation, reduce body mass index and overweight and obesity, reduce the risk of high blood pressure, and reduce the number of vehicle trips, the distances travelled and greenhouse gas emissions. It can also enhance social connectedness. Children tend to play on light-traffic streets, whereas outdoor activities are less common on high-traffic streets. A perception of air pollution can be a barrier to participating in outdoor physical activity. There is a positive association between urban agriculture and increased opportunities for physical activity and social connectivity. Gardening in an allotment setting can result in many positive physical and mental health-related outcomes. Exercising in the natural environment can have a positive effect on mental wellbeing when compared with exercising indoors.

Leisure and recreation opportunities include opportunities that are both formal, such as belonging to a sports club, and informal, such as walking in the local park or wood. Physical activity opportunities include routine activity as part of daily life, such as walking or cycling to work, and activity as part of leisure or recreation, such as playing football. The construction of an NSIP may enhance the opportunities available for leisure and recreation and physical activity through the provision of new or improved travel routes, community infrastructure and/or green or blue space. Conversely, construction may reduce access through the disruption of travel routes to leisure, recreation and physical activity opportunities.

## 2) **Traffic and Transport**

- a. Accessibility

Walkability, regional accessibility, pavements and bike facilities are positively associated with physical activity and negatively related to body weight and high blood pressure, and reduce the number of vehicle trips, the distances travelled and greenhouse gas emissions. Body mass index is associated with street network accessibility and slope variability.

Accessibility in relation to transport and travel has several aspects including whether potential users can gain physical access to the infrastructure and access to the services the infrastructure provides. The design and operation of transport infrastructure and the associated services should take account of the travel needs of all potential users including people with limited mobility. People whose specific needs should be considered include pregnant women, older people, children and young people and people with a disability. Other aspects of transport infrastructure affecting accessibility include safety and affordability, both of which will affect people's ability to travel to places of employment and/or key local services and facilities and/or access their social networks.

- b. Access to / by public transport

Provision of high-quality public transport is associated with higher levels of active travel among children and among people commuting to work, with a decrease in the use of private cars. Combining public transport with other forms of active travel can improve cardiovascular fitness. Innovative or new public transport interventions may need to be marketed and promoted differently to different groups of transport users, eg by emphasising novelty to car users while ensuring that the new system is seen by existing users as coherently integrated with existing services.

Transport facilitates access to other services, facilities and amenities important to health and wellbeing. Public transport is any transport open to members of the public including bus, rail and taxi services operated by the public, private or community sectors. For people who do not have access to private transport, access to public transport is important as the main agency of travel especially for journeys >1 mile. Access to public transport is not sufficient, however, and access by public transport needs to be taken into account: public transport services should link places where people live with the destinations they need or want to visit such as places of employment, education and healthcare, shops, banks and leisure facilities. Other aspects of access to public transport include affordability, safety, frequency and reliability of services.

c. Opportunities for / access by cycling & walking

Walking and cycling infrastructure can enhance street connectivity, helping to reduce perceptions of long-distance trips and providing alternative routes for active travel. Prioritising pedestrians and cyclists through changes in physical infrastructure can have positive behavioural and health outcomes, such as physical activity, mobility and cardiovascular outcomes. The provision and proximity of active transport infrastructure is also related to other long-term disease risk factors, such as access to healthy food, social connectedness and air quality. The perception of air pollution, however, appears to be a barrier to participating in active travel.

Perceived or objective danger may also have an adverse effect on cycling and walking, both of which activities decrease with increasing traffic volume and speed, and cycling for leisure decreases as local traffic density increases. Health gains from active travel policies outweigh the adverse effects of road traffic incidents. New infrastructure to promote cycling, walking and the use of public transport can increase the time spent cycling on the commute to work, and the overall time spent commuting among the least-active people. Active travel to work or school can be associated with body mass index and weight, and may reduce cardiovascular risk factors and improve cardiovascular outcomes. The distance of services from cycle paths can have an adverse effect on cycling behaviour, whereas mixed land use, higher densities and reduced distances to non-residential destinations promote transportation walking.

d. Links between communities

Social connectedness can be enhanced by the provision of public and active transport infrastructure and the location of employment, amenities, facilities and services.

e. Community severance

In neighbourhoods with high volumes of traffic, the likelihood of people knowing and trusting neighbours is reduced.

f. Connections to jobs

The location of employment opportunities and the provision of public and active transportation infrastructure are associated with risk factors for long-term disease such as physical activity. Good pedestrian and cycling infrastructure can promote commuting physical activity. Improved transport infrastructure has the potential to shift the population distribution of physical activity in relation to commuting, although a prerequisite may be a supportive social environment. Mixed land use, higher densities

and reduced distances to non-residential destinations promote transportation walking.

The ease of access to employment, shops and services including the provision of public and active transport are important considerations and schemes should take any opportunity to improve infrastructure to promote cycling, walking and the use of public transport

- g. Connections to services, facilities and leisure opportunities  
Mixed land use, higher densities and reduced distances to non-residential destinations promote transportation walking. Access to recreational opportunities and the location of shops and services are associated with risk factors for long-term disease such as physical activity, access to healthy food and social connectedness. Increased distance of services from cycle paths can have an adverse effect on cycling behaviour.

### 3) **Socio Economic**

- a. Employment opportunities including training opportunities  
Employment is generally good for physical and mental health and well-being, and worklessness is associated with poorer physical and mental health and well-being. Work can be therapeutic and can reverse the adverse health effects of unemployment for healthy people of working age, many disabled people, most people with common health problems and social security beneficiaries. Account must be taken of the nature and quality of work and its social context and jobs should be safe and accommodating. Overall, the beneficial effects of work outweigh the risks of work and are greater than the harmful effects of long-term unemployment or prolonged sickness absence. Employment has a protective effect on depression and general mental health.

Transitions from unemployment to paid employment can reduce the risk of distress and improve mental health, whereas transitions into unemployment are psychologically distressing and detrimental to mental health. The mental health benefits of becoming employed are also dependent on the psychosocial quality of the job, including level of control, demands, complexity, job insecurity and level of pay: transition from unemployment to a high-quality job is good for mental health, whereas transition from unemployment to a low-quality job is worse for mental health than being unemployed. For people receiving social benefits, entry into paid employment can improve quality of life and self-rated health (physical, mental, social) within a short time-frame. For people receiving disability benefits, transition into employment can improve mental and physical health. For people with mental health needs, entry into employment reduces the use of mental health services.

For vocational rehabilitation of people with severe mental illness (SMI), Supported Employment is more effective than Pre-vocational Training in helping clients obtain competitive employment; moreover, clients in Supported Employment earn more and work more hours per month than those in Pre-vocational Training.

- b. Local Business Activity  
It is important to demonstrate how a proposed development will contribute to ensuring the vitality of town centres. Schemes should consider the impact on local employment, promote beneficial competition within and between town centres, and create attractive, diverse places where people want to live, visit and work.

In rural areas the applicant should assess the impact of the proposals on a prosperous rural economy, demonstrate how they will support the sustainable growth and expansion of all types of business and enterprise in rural areas, promoting the

development and diversification of agricultural and other land based rural businesses.

c. Regeneration

Following rebuilding and housing improvements in deprived neighbourhoods, better housing conditions are associated with better health behaviours; allowing people to remain in their neighbourhood during demolition and rebuilding is more likely to stimulate life-changing improvements in health behaviour than in people who are relocated. The partial demolition of neighbourhoods does not appear to affect residents' physical or mental health. Mega-events, such as the Olympic Games, often promoted on the basis of their potential legacy for regeneration, appear to have only a short-term impact on mental health.

d. Tourism and Leisure Industries

The applicant should assess the impact of the proposed development on retail, leisure, commercial, office, tourism, cultural, community and residential development needed in town centres. In rural locations assessment and evaluation of potential impacts on sustainable rural tourism and leisure developments that benefit businesses in rural areas, communities and visitors should be undertaken.

e. Community / social cohesion and access to social networks

The location of employment, shops and services, provision of public and active transport infrastructure and access to open space and recreational opportunities are associated with social connectedness. Access to local amenities can increase social participation. Neighbourhoods that are more walkable can increase social capital. Urban agriculture can increase opportunities for social connectivity. Infrastructure developments, however, can affect the quality of life of communities living in the vicinity, mediated by substantial community change, including feelings of threat and anxiety, which can lead to psychosocial stress and intra-community conflict.

f. Community engagement

Public participation can improve environmental impact assessments, thereby increasing the total welfare of different interest groups in the community. Infrastructure development may be more acceptable to communities if it involves substantial public participation.

#### 4) **Land Use**

a. Land use in urban and / or rural settings

Land-use mix including infrastructure:

Land use affects health not only by shaping the built environment, but also through the balance of various types of infrastructure including transport. Vulnerable groups in the population are disproportionately affected by decisions about land use, transport and the built environment. Land use and transport policies can result in negative health impacts due to low physical activity levels, sedentary behaviours, road traffic incidents, social isolation, air pollution, noise and heat. Mixed land use can increase both active travel and physical activity. Transportation walking is related to land-use mix, density and distance to non-residential destinations; recreational walking is related to density and mixed use. Using modelling, if land-use density and diversity are increased, there is a shift from motorised transport to cycling, walking and the use of public transport with consequent health gain from a reduction in long-term conditions including diabetes, cardiovascular disease and respiratory disease.

Proximity to infrastructure:

Energy resource activities relating to oil, gas and coal production and nuclear power can have a range of negative effects on children and young people. Residing in proximity to motorway infrastructure can reduce physical activity. For residents in proximity to rail infrastructure, annoyance is mediated by concern about damage to



their property and future levels of vibration. Rural communities have concerns about competing with unconventional gas mining for land and water for both the local population and their livestock."

b. Quality of urban and natural environments

Long-term conditions such as cardiovascular disease, diabetes, obesity, asthma and depression can be moderated by the built environment. People in neighbourhoods characterised by high 'walkability' walk more than people in neighbourhoods with low 'walkability' irrespective of the land-use mix. In neighbourhoods associated with high 'walkability' there is an increase in physical activity and social capital, a reduction in overweight and blood pressure, and fewer reports of depression and of alcohol abuse. The presence of walkable land uses, rather than their equal mixture, relates to a healthy weight. Transportation walking is at its highest levels in neighbourhoods where the land-use mix includes residential, retail, office, health, welfare and community, and entertainment, culture and recreation land uses; recreational walking is at its highest levels when the land-use mix includes public open space, sporting infrastructure and primary and rural land uses. Reduced levels of pollution and street connectivity increase participation in physical activity.

Good-quality street lighting and traffic calming can increase pedestrian activity, while traffic calming reduces the risk of pedestrian injury. 20-mph zones and limits are effective at reducing the incidence of road traffic incidents and injuries, while good-quality street lighting may prevent them. Public open spaces within neighbourhoods encourage physical activity, although the physical activity is dependent on different aspects of open space, such as proximity, size and quality. Improving the quality of urban green spaces and parks can increase visitation and physical activity levels.

Living in a neighbourhood overlooking public areas can improve mental health, and residential greenness can reduce the risk of cardiovascular mortality. Crime and safety issues in a neighbourhood affect both health status and mental health. Despite the complexity of the relationship, the presence of green space has a positive effect on crime, and general environmental improvements may reduce the fear of crime. Trees can have a cooling effect on the environment – an urban park is cooler than a non-green site. Linking road infrastructure planning and green infrastructure planning can produce improved outcomes for both, including meeting local communities' landscape sustainability objectives.

## **Bradwell B Nuclear Power Station – proposed by Bradwell Power Generation Company Limited**

### **Royal Mail Group Limited comments on information to be provided in applicant's Environmental Statement**

#### **Introduction**

We write with reference to the email from PINS to Royal Mail dated 9 October 2020 requesting Royal Mail's comments on information that should be provided in Bradwell Power Generation Company Limited Environmental Statement.

Royal Mail's consultants BNP Paribas Real Estate have reviewed the applicant's Scoping Report dated October 2020.

#### **Statutory and Operational Information about Royal Mail**

Under section 35 of the Postal Services Act 2011 (the "Act"), Royal Mail has been designated by Ofcom as a provider of the Universal Postal Service. Royal Mail is the only such provider in the United Kingdom.

The Act provides that Ofcom's primary regulatory duty is to secure the provision of the Universal Postal Service. Ofcom discharges this duty by imposing regulatory conditions on Royal Mail, requiring it to provide the Universal Postal Service.

In respect of its postal services functions, section 29 of the Act provides that Ofcom's primary regulatory duty is to secure the provision of the Universal Postal Service. Ofcom discharges this duty by imposing regulatory conditions on Royal Mail, requiring it to provide the Universal Postal Service.

Under sections, 30 and 31 of the Act (read with sections 32 and 33) there is a set of minimum standards for Universal Service Providers, which Ofcom must secure. The conditions imposed by Ofcom reflect those standards. There is, in effect, a statutory obligation on Royal Mail to provide at least one collection from letterboxes and post offices six days a week and one delivery of letters to all 29 million homes and businesses in the UK six days a week (five days a week for parcels). Royal Mail must also provide a range of "end to end" services meeting users' needs, e.g. First Class, Second Class, Special Delivery by 1 pm, International and Redirections services.

Royal Mail is under some of the highest specification performance obligations for quality of service in Europe. Its performance of the Universal Service Provider obligations is in the public interest and should not be affected detrimentally by any statutorily authorised project.

The Government imposes financial penalties on Royal Mail if its Universal Service Obligation service delivery targets are not met. These penalties relate to time targets for:

- collections,
- clearance through plant, and
- delivery.

Royal Mail's postal sorting and delivery operations rely heavily on road communications. Royal Mail's ability to provide efficient mail collection, sorting and delivery to the public is sensitive to changes in the capacity of the highway network.

Royal Mail is a major road user nationally. Disruption to the highway network and traffic delays can have direct consequences on Royal Mail's operations, its ability to meet the Universal Service Obligation and comply with the regulatory regime for postal services thereby presenting a significant risk to Royal Mail's business.

Royal Mail has twelve operational properties within 10 miles of the proposal site, as identified below:

<b>BE</b>	<b>Business Entry Name</b>	<b>Address</b>	<b>Distance (miles)</b>
1583	South Woodham Ferrers DO	10 Squire Street, Chelmsford, CM3 5YA	1.3
1592	Wickford DO/GAR	17 Lower Southend Road, Wickford, SS11 8AA	2
1577	Maldon DO	1 Riverside Ind Estate, Maldon, CM9 4LD	2.2
278	North Essex LD	3 Sheepcotes, Chelmsford, CM2 5AE	3.5
1597	Chelmsford MC/RTW/MED	Winsford Way, Chelmsford, CM2 5AA	4
1581	Rayleigh DO	160 High Street, Rayleigh, SS6 7BT	4.9
1598	Chelmsford DO	Montrose Road, Chelmsford, CM2 6ZZ	5.1
4389	Burnham on Crouch SUDO	Unit 5 Station Industrial Estate, Burnham on Crouch, CM0 8RW	5.1
1575	Hockley DO	Eldon Way, Hockley, SS5 4AA	6.1
1552	Benfleet DO/GAR	Church Road, Benfleet, SS7 3HA	7
3804	Basildon PAR	Great Oaks, Basildon, SS14 1AH	7.3
1551	Basildon DO/DMB/OFF/RTW/ST	25 East Square, Basildon, SS14 1AA	7.4

Please see plan of Royal Mail operations and the proposed Project attached at Appendix 1.

In view of Royal Mail's operational assets illustrated above the additional vehicle movements a day, (500-700 construction vehicle movements during the peak construction period, as well as, the estimated 9,100 construction workers) suggested within the Scoping Report could impact Royal Mail's network. This will be particularly evident along the main arterial routes (A12, A130, A132 and A141), which are identified within the Scoping Report as potential routes A and B for the early years' strategy.

#### **Royal Mail's comments on the information that should be provided in Bradwell Power Generation Ltd Environmental Statement**

The content of the Transport section of the ES Scoping Report looks adequate to Royal Mail. However, due to the scale and duration of the Scheme, as well as the number of Royal Mail operational properties that could be affected Royal Mail has the following comments / requests:

1. Royal Mail requests that the Transport section and the Transport Assessment within the ES includes information on the needs of major road users (such as Royal Mail) and acknowledges the requirement to ensure that major road users are not disrupted though full consultation at the appropriate time in the DCO and development process. As well as, where possible provide potential alternative access arrangements for impacted Royal Mail sites and other business road users.

2. Royal Mail requests that it be fully pre-consulted (at least one month in advance) by the applicant and its contractors on any proposed road closures / diversions/ alternative access arrangements, hours of working and the content of any Construction Traffic Management Plan. The ES should acknowledge the need for this consultation with Royal Mail and other relevant local businesses / occupiers.

Royal Mail is able to supply the applicant with information on its road usage / trips if required.

Should PINS or Bradwell Power Generation Company Limited have any queries in relation to the above then in the first instance please contact -













Denise Stephenson ([denise.stephenson@royal mail.com](mailto:denise.stephenson@royal mail.com)) of Royal Mail's Legal Services Team or Alice Stephens ([alice.stephens@realestate.bnpparibas](mailto:alice.stephens@realestate.bnpparibas)) of BNP Paribas Real Estate.

# Bradwell B

## Bradwell B

-  Bradwell B
-  Main Development Site
-  Route A
-  Route B
-  Route B

## Royal Mail Operations

-  1 South Woodham Ferrers DO
-  2 Wickford DO/GAR
-  3 Maldon DO
-  4 North Essex LD
-  5 Chelmsford MC/RTW/MED
-  6 Rayleigh DO
-  7 Chelmsford DO
-  8 Burnham-on-Crouch SUDO
-  9 Hockley DO
-  10 Benfleet DO/GAR
-  11 Basildon PAR
-  12 Basildon DO/DMB/OFF/RTW/ST



# **SOUTH WOODHAM FERRERS TOWN COUNCIL'S response to Bradwell B Environmental Impact Assessment Scoping report of October 2020**

## **Introduction**

This document sets out the response of the South Woodham Ferrers Town Council to the Environmental Impact Assessment (EIA) Scoping Report, Appendices and Figures report published October 2020.

South Woodham Ferrers is the largest town in the Chelmsford District and will be significantly impacted throughout the construction of Bradwell B and its ongoing operation.

The Town Council is pleased that this consultation has recognised the emerging Chelmsford Local Plan (adopted on 27 May 2020) and the South Woodham Ferrers Neighbourhood Plan (currently at stage regulation 16), which both outline definitive plans for a substantial growth area to the Town of up to 1,600 homes and supporting infrastructure to the North of the B1012. This highlights the impracticality (if not impossibility) of using the B1012 as a route for construction and commuter traffic and provides evidence that the Bradwell project team need to thoroughly research their proposals. The B1012 is not a bypass and will be reduced in capacity by the proposed housing development introducing multiple pedestrian crossing points, roundabouts and speed restrictions.

South Woodham Ferrers Town Council must be considered a key stakeholder for issues which affect residents as negotiations on the project move forward.

Comments on specific areas covered by the EIA consultation are outlined in the following paragraphs

## **1. Environment**

1.1. The proposals do not sufficiently consider the impact of Bradwell B on the environment. The design of the power station does not minimise the impacts on the sensitive marine environment of the Blackwater Estuary nor is it sensitive to the distinctive landscape and seascape character of the Dengie peninsula, considerations follow:

1.2. The area is an important habitat for wildlife and the Blackwater, Colne, Crouch and Roach Estuaries are essential ecologically and support commercial fisheries. The mudflats and saltmarshes provide foraging for many thousand wintering water birds, as well as providing a breeding habitat. The sites are Special Protection Area, Ramsar, National Nature Reserve and Site of Special Scientific Interest areas and are protected under national and international law, it is therefore not sufficient for the design to "minimise" the impact. (BRB Stage 1 Cons Doc pages 41 and 43)

1.3. The Borrow Dyke which flows next to the proposed site is also designated as a Site of Special Scientific Interest (SSSI), Special Protection Area (SPA) and Ramsar site. It may also support water voles, a protected species. The proximity of the Borrow Dyke to the proposed Power Station is shown in the Main consultation document on page 40 Figure 3.12.

1.4. Although the main development site benefits from the existing flood embankment, this is insufficient to protect Bradwell B power station from flooding, over the lifetime of the plant, considering foreseeable climate change. The site must be raised, and new larger sea defences constructed. On page 39 of the



main consultation document, Figure 3.11 Flood Zone Map for planning, shows the whole site apart from 2 irrigation reservoirs (Flood Zone 2) are in Flood Zone 3. This is not mentioned in the Summary document.

1.5. The carbon footprint for the construction of the power station must be considered in addition to any perceived benefits. There appears to be a lack of a strategy to reduce carbon emissions during the construction of the power station and the resultant huge carbon footprint is highly likely to significantly outweigh the benefits of the small footprint of the energy produced once the power station is operational. Appropriate monitoring and reporting must be put in place, and a clear strategy, with the aim of reducing the carbon emissions during the construction phase for the benefit of all. (Chelmsford Local Plan – May 2020 Page 222, Policy DM19)

1.6. The new connection to the National Grid will have a major and detrimental impact on South Woodham Ferrers, particularly in respect of the proposed development to the north of the B1012, it is essential that Bradwell B works closely with the National Grid to align proposals and to allow impacts to be fully assessed, before the 2<sup>nd</sup> consultation stage. (Chelmsford Local Plan Strategic Growth Site 10 North of South Woodham Ferrers, Page 169)

## **2. Transport**

2.1. There is a high level of car ownership in the area and consequently of vehicle movements on the road network. There is already significant traffic congestion on the B1012/A132/A130/A12 and A414 corridors - all routes that construction and ongoing commuter traffic will need to use to access the Bradwell B site. Congestion will increase when the Chelmsford Local and the South Woodham Neighbourhood plans have been delivered. Further housing developments in Maldon District will also lead to more traffic on South Woodham Ferrers roads and will only be compounded by the additional Bradwell B traffic.

2.2. The Town Council has major concerns about the detrimental effects of the massive increase in road transport on air quality and the increased noise pollution in South Woodham Ferrers. This will have a significant impact on residents, especially in relation to prevailing wind direction and the proposed new development. There is currently a Health Centre, school, garden of remembrance, homes and listed buildings along the proposed route on the B1012. This will be exacerbated by the development of another 1600 homes on the north side of the B1012 and therefore the construction and ongoing works traffic will be directed through the middle of our South Woodham Ferrers. The traffic generated by the Bradwell project needs to be separated from the sensitive residential areas along the B1012, which will bisect the town as planned development progresses.

2.3 We are concerned that the vibrations from the high level of HGV's will affect listed buildings and residential properties abutting the B1012.

2.4 The surveys prepared for the Local Plan by Essex Highways ( Preferred Option Strategic & Local Junction Modelling – January 2018), stated on pages 112 and 113 that road junctions in South Woodham Ferrers are already near capacity, at capacity or over capacity. The document informs us that “In terms of highway mitigation investigated, only what might be reasonably affordable and could be delivered within the land available around the junction has been looked at”. One very important junction on the B1012 which already carries a large volume of traffic from the Maldon District and which would see a great increase generated by the Bradwell B Project, has been discounted for mitigation. Robust traffic and highway capacity research must be carried out to ensure that the environment is protected by appropriate infrastructure and is fit for purpose.

2.5 There are proposals for road improvements, including bypasses, throughout the proposed routes in the Maldon District, but no proposed improvements to the B1012 and A132 in the Chelmsford District. A bypass of South Woodham Ferrers to the A130 is essential for traffic to and from Bradwell, because the B1012 is not a bypass and will become more integrated into the urban area as the planned housing development progresses.

2.6 Working from home is going to free up capacity on the rail network, so more use of the railway would help reduce the need for road transport and lessen the impact on the environment.

2.7 The increased use of marine transport for carrying materials would also protect the local environment

### **3 People and Jobs**

3.1 Need to consider the impact on the local area environments in both the Maldon and Chelmsford Districts of new housing developments as a result of the Bradwell B project.

3.2 This part of Essex is a low unemployment area and acquiring staff from outside of the community will have an increased effect on house demand.

3.3 A local employment policy should be set up to reduce the effects on the environment of reliance on commuting and long distance travelling to Bradwell B.

### **4. Major Accidents and Disasters**

4.1 Flooding is a real risk in the future with climate change causing rising sea levels and extreme weather events and the need for an evacuation of the site and local area need to be considered as there are only two main exit routes from the Dengie

4.2 Other major incidents, such as terrorism, fire, cyber-attacks will also mean there is a clear need for contingency evacuation and resilience plans to protect both residents and the environment

### **5 Conclusions**

5.1. In conclusion, the proposals for transport modes, environmental protections and housing impacts must be taken seriously in the next stage of the project. The proposals need to consider international environmental law and known housing development plans, impacting on South Woodham Ferrers and other major conurbations in the area.

5.2. The adopted Chelmsford Local Plan and the South Woodham Ferrers Neighbourhood Plan (which has reached inspection stage) are both relevant and must be considered because they determine the future South Woodham Ferrers road infrastructure.

5.3. Given the status of the Chelmsford Local Plan, including the large housing development North of South Woodham Ferrers and the Town's Neighbourhood Plan it appears that the current Bradwell B proposal needs further work to conform to these plans.

**END**



# Bradwell B Project – EIA Scoping Report

Ref: letter from 'The Planning Inspectorate' dated 9<sup>th</sup> October 2020

The comments below summarise my take out from those parts of this huge document that, in my opinion, impact the Parish of Steeple with particular focus on the implications for those residents who live on or close to Bradwell Road, The Street or Maldon Road.

These notes do not constitute a summary of the whole document. There are many sections that have been largely ignored because, although important, they do not specifically affect Steeple. Most of the comments relate to:

Section 3 – “The Project”

Section 6 – “Transport” (although most ‘Transport’ issues are covered in Section 3)

Each comment is referenced to the paragraph number and page number to which it relates.

Words in italics are verbatims from the Report.

Where you see a row of dots it means I've left out unnecessary words to improve clarity.

Paragraphs are in numerical sequence rather than in order of importance.

## **The Project – key points**

- 3.2.4 (page 31) Construction Phase estimated to take 9 – 12 years.  
(See Plate 3.1 on page 40)
- 3.2.4 (page 31) Operational Phase is anticipated to last 60 years.

**Comment:** Then a further period of decommissioning and storage stretching into 22<sup>nd</sup> century.

- 3.4.19 (page 38) *“Following feedback from Stage One consultation.... the applicant is considering the potential opportunities for rail as part of the Transport Strategy...”*  
(See also 3.4.39, page 42)

**Comment:** This wording suggests reluctance rather than an enthusiastic commitment. That is regrettable because extending the rail line from Southminster to Bradwell would potentially reduce the increases in HGV traffic though Steeple.

- 3.4.21 (page 38) *“...it is anticipated that up to 9,100 construction workers is a likely realistic central estimate....”*

**Comment:** Not yet clear what proportion would be housed on site but a significant proportion would commute through Steeple.

- 3.4.31 (page 41) *“A significant volume of bulk fill [material]”* will be required to raise the ground level for flood protection. It *“could either be sourced locally or transported .... by sea or by other appropriate modes.”*

**Comment:** “Appropriate modes” is a euphemism for large numbers of HGV's.

- 3.4.33 (page 41) *“Some large items .... must be transported by sea because they are too large or heavy to transport by road, although some ... may also come to the site by road.”*

**Comment:** Contradictory wording!

- 3.4.40 (page 42) States that National Grid (not the Bradwell B Project) will be responsible for constructing a new 400kV transmission line connecting Bradwell B with the national high voltage distribution system. That will replace the dormant 132kV live that crosses the southern part of Steeple Parish.

**Comment:** Because of the tripled voltage, the 400kV pylons will be much taller than the present pylons (although further apart) and consequently have greater impact on Steeple's skyline.

- 3.4.41 (page 43) and 3.4.49 (page 45) *"During its 60-year operational life, the Bradwell B power station would undergo refuelling and maintenance shutdowns ... at approximately 18-month intervals."* *"During operation, .... approximately 900 staff would be employed...Approximately 1,000 additional staff would be employed during planned refuelling and maintenance."*

**Comment:** Although most of the 900 permanent staff would probably live locally, the extra 1,000 'temporaries' can be assumed to commute through Steeple.

- 3.6.16 (page 50) *"Based on the work conducted to date .... it is estimated that there would be ... 500 - 700 HGV movements on average per day during the peak construction period ..."*

**Comment:** The majority of these HGV movements would pass through Steeple. If they were confined to an 8-hour working day, **THE AVERAGE COULD BE 87 MOVEMENTS PER HOUR.**

- 3.6.26 (page 52) *"The Transport Strategy during the early years [first 1 – 2 years of Construction Phase] will focus on utilising the existing highway network ..."*

**Comment: THIS IS THE WORST POSSIBLE NEWS.** It means Steeple would see greatly increased light and heavy traffic **BEFORE** significant mitigations (i.e. a bypass) were implemented.

- 3.6.27 (page 52) *"... to enable the movement of freight on the existing road network during the early years:"*

*"localised junction and highway works ... which may or may not require targeted third party land outside of the designated highway boundary;"*

*and "environmental management measures to reduce potential impacts on communities and sensitive receptors, such as residential properties, community facilities, conservation areas and listed buildings."*

**Comment:** The mention of 'listed buildings' is encouraging. The fact that Steeple has 15 listed buildings within one metre of the 'strategic route' carriageway is highly significant.

- 3.6.29 (page 53) *"The early years' strategy has identified two preferred potential HGV routes from the A12" to Pale Pit Corner (Cold Norton).*

*"HGV's would then route via Latchingdon, Mayland and Steeple to the main development site. .... outbound ... HGV's ... would follow the same route as the inbound traffic."*

**Comment:** Couldn't be clearer; **ALL HGV's WILL COME THROUGH STEEPLE.**

- 3.6.37 (page 54) *"...Strategic route also includes options to incorporate a bypass to both Latchingdon and Mayland."*

**Comment:** Bypass for Steeple apparently a lower priority than bypasses for Latchingdon and Mayland.

- 3.6.38 (page 55) *“Search Area H.... includes The Street/Bradwell Road through Steeple. Highway interventions in this area are likely to comprise of localised highway widening to the existing highway through Mayland and Steeple ... For the peak construction, the highway interventions .... include a potential off-line southern bypass to Mayland and Steeple ...”*

**Comment:** The narrowest portions of the highway through Steeple are lined by listed buildings on both sides. The road cannot be widened at these pinch points.

Improvements to the road between Mayland and Steeple will encourage HGV's to come through Steeple rather than use the Foxhall Road alternative.

**DELAYING THE STEEPLE BYPASS UNTIL CONSTRUCTION APPROACHES ITS PEAK IS COMPLETELY UNACCEPTABLE.**

### **Public Concerns about Nuclear**

- 4.3.3 (page 63) *“The Bradwell B power station would use the same nuclear reactor technology as another power station that is currently being built in China, known as ‘Fangchenggang 3’.*

**Comment:** The Bradwell B technology is not only Chinese, **ITS SAFETY AND RELIABILITY ARE NOT YET PROVEN IN CHINA.**

### **Transport**

- 6.5.37 (page 123) Refers to historic traffic flow data in Appendix 6A (Volume 2) (page 1285/86). In 2017, there were 46 ‘traffic counts’ in Maldon District, one of which in Steeple. In 2016, 2018 and 2019, there were no ‘traffic counts’ in Steeple.

**Comment:** The report includes schedules for many more ‘traffic counts’ in the future.

- 6.8.2 (page 141) *“The range of mitigation measures that would be included as embedded mitigation have been described in detail in ‘Chapter 3: The Project’ and are summarised as follows:”*
  - Facility to allow delivery of materials by sea
  - Park and Ride facilities
  - Project provided accommodation
  - Freight management facilities
  - Highway widening
  - Realignment (of highways)
  - Bypasses
  - Direct bus services
  - Potential management measures

**Comment:** No specific proposals for any of these at this stage.

### **Other information from Appendices**

- Appendix 6B (page 1304) lists pedestrian crossings throughout Maldon District. For Steeple, it includes: *“Uncontrolled crossing west of Batt’s Road/The Street/Bradwell Road.”*

**Comment:** The Bradwell B team has noticed that quite a lot of people cross the road in the centre of Steeple village! Perhaps a ‘controlled’ (i.e. Zebra) crossing will be required in future.

- Appendix 7A (pages 1317 and 1318) identifies eight locations where Road Traffic Noise Surveys will be conducted. Five are in Bradwell with one each in Steeple, St Lawrence and Tillingham.

**Comment:** The Steeple noise survey check point must be at one of the points in The Street bounded by houses close to the carriageway.

- Table 7.22 mentions “*Effects due to groundborne vibration from traffic on the local road network.*” but goes on to say that “... *operational vibration will not have the potential to lead to significant adverse effects*” because it’s assumed that “... *a maintained road surface will be free of irregularities...*”

**Comment:** Technically unsound statement. (Ref: “Handbook of Vehicle-Road Interactions” by Professor David Cebon, Cambridge University.)

The resident of a listed cottage in Steeple has reported increased structural vibrations after the road was resurfaced by Essex County Council in 2019.

Peter H Marshall

29<sup>th</sup> October 2020

**MEMBERS OF THE PARISH COUNCIL**  
**STOW MARIES PARISH COUNCIL**

**16 BUTTERCUP WAY,  
SOUTHMINSTER,  
CHELMSFORD,  
ESSEX. CM0 7RX**

**ROLE: PARISH CLERK/RESPONSIBLE FINANCIAL OFFICER**

**TEL: [REDACTED]**

**Email: Clerk.stowmariesparishcouncil@gmail.com**

**RESPONSE TO BE SENT VIA EMAIL TO: -  
BradwellB@planninginspectorate.gov.uk**

**STOW MARIES PARISH COUNCIL RESPONSE TO THE PLANNING INSPECTORATE**  
**REQUESTING A SCOPING OPINION FOR AN ENVIRONMENTAL STATEMENT**  
**RELATING TO THE PROPOSED DEVELOPMENT OF BRADWELL B POWER STATION.**

**Your ref: EN010111 000041 201090**

Stow Maries Parish Council members debated the three reports:-

1. Scoping Report and Appendices
2. Figures
3. Revised site plan;

However the discussion revolved around the fact that Stow Maries and other villages on the Dengie Peninsula are all suffering the same problem now, and that problem is only going to get much worse when the Countryside Development begins construction in South Woodham Ferrers (possibly up to 3000 houses) and the proposed Bradwell B Power Station is built and that is the need for a fully comprehensive road upgrade in the area. South Woodham Ferrers, can not cope with the current traffic flows and the plans that have been put forward are just going to make things worse. In order to ensure good flow of traffic and keeping down the carbon footprint it is essential to build **before** construction commences on Bradwell B and the Countryside development **a South Woodham Ferrers by-pass at the North boundary.**

Please see below points that Stow Maries has already raised in its response to Bradwell B which cover a good deal of what needs to be in the Environmental Statement and overall details proposals which really sums up the members and local residents feelings regarding the need for all the parties involved i.e. Essex County Council Highways, Chelmsford City Council, Maldon District Council, Countryside Properties, Bradwell B, South Woodham Ferrers Town Council, Secretary of State (Department of Transport) and the parishes that it affects to start a Committee that is **pro-active, not reactive** and will sort out the road infrastructure that will cover and meet all the needs for now and the future so that expensive projects are not done half heartedly and don't fit the bill, so that another and another follow, costing more in the long run.

There is a chance to really get this right and all it needs is a co-operation of parties and some comprehensive, practical joined up thinking.

Response sent regarding Bradwell B Stage One Consultation in June 2020.

**Q1: BRADWELL B PROPOSALS: OVERALL**

- We accept that the Government has identified Bradwell as a site for a new power station and accept the reasons why is that we need electricity.
- The sheer size of the proposed development is overwhelming compared to Bradwell A for our rural area, both in terms of our road infrastructure and local housing capacity. The current plans do not address these concerns sufficiently.

- We acknowledge the significant potential economic benefits to our Local local Community to be supported throughout the entire construction phase and to receive social economic benefits area and support initiatives to educate, train and employ local people for work at Bradwell B. We expect development at all steps stages to prioritise the protection of the environment and civil amenity.
- Light and noise pollution should be monitored during the “Generation” phase and corrective action take if acceptable limits are exceeded.
- The marketing materials do not mention or consider longer-term transformational development, which could be significant in this area. (Transformational development refers to a project that creates the economic conditions for further investment. Projects such as Bradwell B are widely recognised as being highly likely to rapidly shift the geographical, sectoral, and distributional characteristics o the local economy, in particular by spurring urbanisation and industrialisation).
- More analysis is required through formal cost-benefit analysis at the next stage of planning.
- At the present time, our conclusion is that the downsides of the current design options being proposed outweigh the upsides. The critical issue to address in the short-term is road usage – even with road developments the proposal for up to 700 two way movements per day is unacceptable. The critical issue to address in the long-term is housing capacity – the impact of full-time workers moving in to the area would be significant displacement of local people, which is also unacceptable. It is essential that the extent of roads which are currently subject to upgrading be reassessed: without the additional upgrading of the road network (between South Woodham Ferrers and the Rettendon Turnpike interchange with the A130) there will be daily gridlock around South Woodham Ferrers which will not only affect local residents but also be extremely detrimental to the smooth flowing of construction traffic and employees attempting to access Bradwell B, with financial implications and major delays in the overall construction period. When assessing traffic flows, allowance should also be made for the future major increase in local traffic loads on the B1012 around South Woodham Ferrers now that there is ECC approval for a major new housing and industrial development which is solely to be accessed from the same stretch of B1012.
- **A further critical issue to address in the long-term is housing capacity – the impact of full-time workers moving in to the area would be significant, leading to an unacceptable**
- **displacement of local residents, which is also unacceptable.**

## **Q2: THE POWER STATION: DESIGN & ENVIRONMENT**

- The size, scale and bulk – 10 times the area of Bradwell A – will result in the loss of a large area of important green space and impact on landscape and wildlife. We are not convinced or sure how the proposal can mitigate environmental damage to a site that is part of a nature reserve and biological and geological Site of Special Scientific Interest, also with the estuary being a Special Area of Conservation and designated marine conservation zone.
- All reasonable steps must be taken to screen all around the site during and after construction.
- Bradwell needs to ensure that the footpath to the beach is accessible throughout All Phases, as this path has been used for over 20 years by the whole area and even further afield.
- We understand that waste from Bradwell B will be stored on site. We welcome clarification on the length of time waste will be stored on site for. No waste should be imported from other power stations to be stored.

**Q3: PEOPLE & JOBS**

- A programme should be produced liaising with all educational establishments setting up training/apprenticeships to ensure that the relevant skills/subjects are followed to ensure local employment is continued to be used throughout the life of the power station.
- Recruitment should prioritise the local community within a 30 miles radius.
- Local contractors should be given the opportunity to bid for contract(s) enhancing the prosperity of the local community as locals will be employed again within a 30 miles radius. Employment of local people will also lessen the extent of future increases in traffic loads on an inadequate road network, and benefit Bradwell B financially through a reduction in the need for new housing accommodation and associated servicing facilities.

**Q4: ACCOMMODATION: OVERALL APPROACH**

- All temporary accommodation should be built to an approved standard. It is laudable that Bradwell B states that it intends to remove this accommodation after construction has finished, with the reinstatement of the land to its present use. However, in this context it is questionable whether the proposed accommodation blocks of up to six storeys (with the increased complexity of its future demolition) is the most practical or financially advantageous to Bradwell B. Low rise accommodation whilst taking up a great footprint, would be more appropriate, and be more environmentally friendly..
- The critical issue which is not addressed is housing capacity in the long-term. The impact of full-time workers moving into the area would be the significant displacement of local people, which is also unacceptable. Likewise, the plan for 350-700 houses to be built during the Generation stage in Bradwell will have a huge impact on the local community.
- Local infrastructure is not adequate now, so a fully comprehensive plan is needed for health and education and other shops and services. Additionally, the local road network – should be upgraded with as little disruption as possible to the environment and put in place prior to the start of the Bradwell B build
- All services provided within the site should be given by local businesses, which again will lessen future additional traffic loads.

**Q5: ACCOMMODATION: TEMPORARY CAMPUS & CARAVAN SITES**

- The whole of the site should be screened.
- Scenario One is appropriate as within the containment of the site and does not impact so much on Bradwell Village.
- Scenario Two is inappropriate
- Prefer low level buildings as opposed to multi-level in keeping with locality. Additionally, it is questionable whether the proposed accommodations blocks of up to six storeys (with the increased complexity of its future demolition) is the most practical or financially advantageous to Bradwell B.
- Consideration should be given to the accommodation especially in regard to the Covid-19 Pandemic – is the space allocated for such a large amount of people going to be safe when living and working in such close proximity, especially in the proposed multi-rise blocks
- All temporary buildings to be removed after use, as proposed, with reinstatement of existing land use



#### **Q6: TRANSPORT: OVERALL APPROACH**

- The critical issue to address in the short-term is road usage – even with road developments the proposal for up to 700 two way movements per day is totally unacceptable to local residents living from South Woodham Ferrers towards Bradwell. We expect a huge reduction in this figure to no more than 200 two way movements. Alternatives need to be found – with our preference being marine.
- Acknowledging that some HGV usage will be required:
  - No HGV or coach movements should take place during the hours of 8.30-9.30 and 3 p.m. to 4 p.m. during term-time when school runs are being made and residents going to and from work.
  - Restriction of any lorry movements at night should be a priority nothing with a total ban between 7 p.m. and 7 a.m.
  - HGV's not to travel in convoy.
  - Strong liaisons between Chelmsford City Council and JMBB and Bradwell B need to be forged to ensure that the lay out of the route(s) is not going to cause total gridlock in the Crow's Lane area of Stow Maries as this happened very recently when Wellinditch Bridge was being repaired and there was not nearly as much traffic as is anticipated during the construction period.
  - Once the strategic route is chosen, all traffic should be excluded from any other routes and definitely not being diverted through any villages, therefore clear signage will be essential to ensure this.
  - The Dengie Peninsula has a lot of farming traffic all year round and needs to be factored in.
- Highly recommend vastly increasing the baseline figure of 50% for using marine transport in bringing materials into the site .
- We would favour a marine answer, but if the road network is used, it should be born in mind that the roads are already inadequate without Bradwell B and bear in mind the thousands of dwellings being built in Maldon, Burnham and obviously South Woodham Ferrers. Very few of these are, as yet occupied, but will be so before the power station project commences and add significantly to the traffic numbers.
- Further research into Network Rail needs to take place to bring in supplies and keep them off the roads.

HGV traffic is a major issue, but is compounded by commuter traffic for employees at Bradwell B, and increased deliveries for support services for new accommodation. It is essential that the extent of roads which are currently subject to upgrading be reassessed: without the additional upgrading of the road network (between South Woodham Ferrers and the Rettendon Turnpike interchange with the A130) there will be daily gridlock around South Woodham Ferrers which will not only affect local residents but also be extremely detrimental to the smooth flowing of construction traffic and employees attempting to access Bradwell B, with financial implications and major delays in the overall construction period. When assessing traffic flows, allowance should also be made for the future major increase in local traffic loads on the B1012 around South Woodham Ferrers now that there is ECC approval for a major new housing and industrial development which is solely to be accessed from the same stretch of B1012.

## **Q7 MOVING FREIGHT: SEA TRANSPORT**

- Option 1 - Appropriate
- Option 2 - Appropriate
- Option 3 – Appropriate
- Sea Transport is entirely appropriate. The consultation document mentions a lack of suitable ports in the vicinity, which is inaccurate. Both Harwich and Tilbury would be suitable, having all tide access and connected to the rail network, shipping time is hardly relevant in the context, it is loading times and good transport access that matter, which both of these locations have.
- Option 4 - Inappropriate – totally against dredging and installing of a pipeline as this will have a huge impact on the local oyster beds, fishing and the environment far more than the above options.

## **Q8 ROAD TRANSPORT: STRATEGIC ROUTE 1**

- As above, we would expect a huge reduction in road usage as the chosen method of transport proposed during both The construction phase and beyond. Our comments below on what strategic routes are acceptable or otherwise it assumes that this will happen.
- We prefer Strategic Route 1 as it is the shortest and is considered to be the most environmentally friendly route with the least impact.
- The early years route option here is ridiculous, if a road network is to be built, do it at the start.
- The by-passes considered will reduce heavy traffic through the named villages and should be designed carefully to minimise the impact on their residents and the environment.
- It is also essential that the extent of roads which are currently subject to upgrading be reassessed: without the additional upgrading of the road network (between South Woodham Ferrers and the Rettendon Turnpike interchange with the A130) there will be daily gridlock around South Woodham Ferrers which will not only affect local residents but also be extremely detrimental to the smooth flowing of construction traffic and employees attempting to access Bradwell B, with financial implications and major delays in the overall construction period. When assessing traffic flows, allowance should also be made for the future **major** increase in local traffic loads on the B1012 around South Woodham Ferrers now that there is ECC approval for a major new housing and industrial development which is solely to be accessed from the same stretch of B1012.

## **Q9 ROAD TRANSPORT: STRATEGIC ROUTE 2 WEST**

- Option 1 – Option one is the only appropriate response here, which is to widen and straighten the existing B1010 and connect to the B1018.
- Option 2 – Inappropriate – (North) runs very close to Stow Maries Village and is entirely inappropriate, and impacts the Danbury Ridge Conservation Area.
- Option 3 –Inappropriate – (South) would detrimentally affect the environment of Ramsar, ESA and SSSI sites which carry significant numbers of migratory waders and other birds. The Crouch Valley SSSI is also there to protect a rare invertebrate environment on which Bumble Bees are being encouraged. The South facing slopes in the vicinity will also grow the vineyards of the future, which this Parish needs if it is to retain its agricultural character.

**In summary these options are considered to be totally inappropriate due to the damage to the environment.**

**Q10 ROAD TRANSPORT: ROUTE 2 EAST**

- Option 1 - Inappropriate
- Option 2 - Inappropriate
- Option 3 – Inappropriate

These options are considered to be totally inappropriate due to the damage to the environment.

**Q11 ROAD TRANSPORT – STRATEGIC ROUTES 1 AND 2 BRADWELL SECTION**

- Restrictions on times of vehicle movements need to be imposed in order to protect the amenity of residents.
- Light and noise pollution need constant monitoring and corrective action taken if acceptable limits are exceeded
- Air pollution needs constant monitoring and corrective action taken if acceptable limits are exceeded
- Property owners along the route(s) must be allowed to have a survey carried out before and after at the expense of Bradwell B and compensated if damage to properties is proved to have been caused by excessive traffic as there are some very old listed buildings on these routes.

**Q12 TRANSPORT: FREIGHT MANAGEMENT FACILITY**

- Freight holding area should not be on the Dengie Peninsula as this will have impact on light, noise and air pollution.
- HGV's must not travel in convoy as this will have a greater impact on the environment.
- No HGV movements between 7 p.m. and 7 a.m.
- For health and safety reasons, no HGV movement between 8.30-9.30 a.m. and 3 p.m. to 4 p.m. during school term-time.

**Q13 TRANSPORT: PARK & RIDE**

- All park and ride areas should be located beyond South Woodham Ferrers and/or Maldon – i.e. not on the Dengie Peninsula. As such, we prefer Sites 2, 3 and 4.
- There should be a system to monitor where full time employees of Bradwell B live, and if a significant number live outside of the locality, the park and ride services should be maintained beyond the construction phase on an ongoing basis. Where they are not required, all park and rides should be reinstated to existing land uses after construction has finished.

**Q14 CONSULTATION PROCESS**

On the whole the process was felt to be as good as it gets, unfortunately with Covid-19 restricting the Workshops planned, in order for Parish/Town Councils to be able to consult members of the public more widely, consideration should be given to starting delaying the commencement of the Stage 2 process earlier so that there is more

time for all residents, in particular those those 'shielded' or choosing to self-isolate, to respond. It is grossly unfair (and contrary to the principles of Equal Opportunities legislation) to deny these residents the opportunity of responding, bearing in mind the immense impact that Bradwell B will have on their future lives. Simply cancelling virtually all consultation exhibitions (even libraries have been closed for many weeks) is not acceptable, and negates your stated intention that everyone's 'views are important to the development of (your) proposals ... and will help shape future plans'. A specific letter concerning this point is attached. Where possible we have encouraged our residents to respond directly as well as to the Parish Council.

**For and behalf of Stow Maries Parish Council**

## TDC response to BrB EIA Scoping report.

TDC support and reiterate the comments submitted by MDC & EEC and would like to add the following:

Table 19.3: Local sea users relevant to navigation assessment provides a list of those being consulted, Harwich Haven Authority should be included on this list. This is reiterated in Table 19.4: Stage One Consultation comments in which the MMO has advised that in terms of Stakeholder Engagement the Project should engage neighbouring Harbour Authorities, this should include Harwich Haven Authority and the Port at Mistley.

In paragraph 19.5.2 “Commercial shipping transiting the study area includes cargo vessels, passenger vessels and tankers using the principal east coast ports including the London ports (for example, Tilbury) and Harwich Haven ports (for example, Felixstowe, Harwich and Ipswich).” This supports the need for Harwich Haven and other Port Authorities to be consulted at this stage.

Para 19.5.3 discusses the maintenance of offshore windfarms, it does not include the Galloper Wind Farm which is serviced and maintained from a state of the art facility in Harwich. There are planned extensions to Galloper and other windfarms in the Southern North Sea. This element needs including in the next phase of consultation.

Applicant: Alison L Down  
The Planning Inspectorate  
Environmental Services  
Central Operations  
Temple Quay House  
2 The Square  
Bristol, BS1 6PN

**Your Ref:** EN010111\_000041\_201009

**E-Mail:** [dm@thurrock.gov.uk](mailto:dm@thurrock.gov.uk)

**Date:** 4th November 2020

Dear Ms Down

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

**Your Reference:** EN010111\_000041\_201009

**Our Reference:** 20/4111/ENQ

**Proposal:** Scoping consultation and notification of Bradwell B new nuclear power station

**Location:** Bradwell B new nuclear power station, Bradwell on Sea, Essex

Thank you for your consultation to this authority regarding the proposed Bradwell B new nuclear power station.

Having reviewed the information Thurrock Council's Planning and Growth team has no objections to the details contained in the scoping consultation.

I hope this information is of assistance and should you wish to contact me please do so via the email address stated above.

Yours sincerely



Chris Purvis  
Major Applications Manager

**From:** [Stephen Vanstone](#)  
**To:** [BradwellB](#)  
**Cc:** [Trevor Harris](#); [Down, Alison](#)  
**Subject:** RE: EN010111- Bradwell B new nuclear power station - EIA Scoping Notification and Consultation  
**Date:** 05 November 2020 10:52:07  
**Attachments:** [image001.jpg](#)  
[BRAD - Statutory consultation letter.pdf](#)

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Good morning Alison,

Thank you for your e-mail below.

In the interest of marine navigation safety, Trinity House has the following comments to make concerning the above:

We would expect the following to form part of the Environmental Impact Assessment:

Navigation Risk Assessment (NRA)

- We are pleased to note that the applicant is using the Marine Guidance Note 543 to shape their assessment.
- We suggest full consultation in this regard is carried out with Maldon District Council, who have considerable responsibilities in managing navigation in this area.

Risk Mitigation Measures

- Consideration should be given to how the works below MHWS could be marked with marine aids to navigation by the applicant in accordance with the general principles outlined in IALA (International Association of Marine Aids to Navigation and Lighthouse Authorities) Maritime Buoyage System, as a risk mitigation measure. In addition to any permanent marking that may be required, it should be borne in mind that additional aids to navigation such as buoys may be necessary to mitigate the risk posed to the mariner, particularly during the construction phase. All marine navigational marking, which will be required to be provided and thereafter maintained by the applicant, will need to be addressed and agreed with Trinity House. This will include the necessity for the aids to navigation to meet the internationally recognised standards of availability.
- Promulgation of marine navigation information should also be fully considered.

Harbour Empowerment Order

- Trinity House would expect to be consulted if a Harbour Empowerment Order is sought to ensure our statutory powers are encompassed.

Kind regards,

**Stephen Vanstone**

Navigation Services Officer | Navigation Directorate | Trinity House

[stephen.vanstone@trinityhouse.co.uk](mailto:stephen.vanstone@trinityhouse.co.uk) | 0207 4816921

[www.trinityhouse.co.uk](http://www.trinityhouse.co.uk)



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**From:** Down, Alison <[ALISON.DOWN@planninginspectorate.gov.uk](mailto:ALISON.DOWN@planninginspectorate.gov.uk)>  
**Sent:** 09 October 2020 17:37  
**To:** Navigation  
**Cc:** Thomas Arculus  
**Subject:** EN010111- Bradwell B new nuclear power station - EIA Scoping Notification and Consultation

Dear Sir/Madam

Please see the attached correspondence on the proposed Bradwell B new nuclear power station.

Please note that the deadline for consultation responses is 7 November 2020 and is a statutory requirement that cannot be extended.

Kind regards.

Alison L Down  
EIA Advisor  
Environmental Services  
Direct Line: 0303 444 5039  
Helpline: 0303 444 5000  
Email: [alison.down@planninginspectorate.gov.uk](mailto:alison.down@planninginspectorate.gov.uk)

Web: <https://infrastructure.planninginspectorate.gov.uk/> (National Infrastructure Planning)

Web: [www.gov.uk/government/organisations/planning-inspectorate](http://www.gov.uk/government/organisations/planning-inspectorate) (The Planning Inspectorate)

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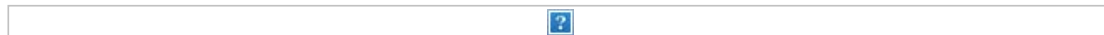


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