



# **SCOPING OPINION:**

## **Proposed Oikos Marine and South Side Development**

**Case Reference: TR030004**

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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

**May 2020**

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# 1. INTRODUCTION

## 1.1 Background

- 1.1.1 On 07 April 2020, the Planning Inspectorate (the Inspectorate) on behalf of the Secretary of State (SoS) received a scoping request from Oikos Storage Limited (the Applicant) under Regulation 10 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) for the proposed Oikos Marine and South Side Development (the Proposed Development).
- 1.1.2 In accordance with Regulation 10 of the EIA Regulations, an Applicant may ask the SoS to state in writing its opinion *'as to the scope, and level of detail, of the information to be provided in the environmental statement'*.
- 1.1.3 This document is the Scoping Opinion (the Opinion) provided by the Inspectorate on behalf of the SoS in respect of the Proposed Development. It is made on the basis of the information provided in the Applicant's report entitled 'Oikos Marine and South Side Development, Environmental Statement – Scoping Report' (the Scoping Report). This Opinion can only reflect the proposals as currently described by the Applicant. The Scoping Opinion should be read in conjunction with the Applicant's Scoping Report.
- 1.1.4 The Applicant has notified the SoS under Regulation 8(1)(b) of the EIA Regulations that they propose to provide an Environmental Statement (ES) in respect of the Proposed Development. Therefore, in accordance with Regulation 6(2)(a) of the EIA Regulations, the Proposed Development is EIA development.
- 1.1.5 Regulation 10(9) of the EIA Regulations requires that before adopting a scoping opinion the Inspectorate must take into account:
- (a) *any information provided about the Proposed Development;*
  - (b) *the specific characteristics of the development;*
  - (c) *the likely significant effects of the development on the environment; and*
  - (d) *in the case of a subsequent application, the environmental statement submitted with the original application.*
- 1.1.6 This Opinion has taken into account the requirements of the EIA Regulations as well as current best practice towards preparation of an ES.
- 1.1.7 The Inspectorate has consulted on the Applicant's Scoping Report and the responses received from the consultation bodies have been taken into account in adopting this Opinion (see Appendix 2).
- 1.1.8 The points addressed by the Applicant in the Scoping Report have been carefully considered and use has been made of professional judgement and experience in order to adopt this Opinion. It should be noted that when it comes to consider the ES, the Inspectorate will take account of relevant legislation and guidelines. The Inspectorate will not be precluded from requiring additional information if it

is considered necessary in connection with the ES submitted with the application for a Development Consent Order (DCO).

- 1.1.9 This Opinion should not be construed as implying that the Inspectorate agrees with the information or comments provided by the Applicant in their request for an opinion from the Inspectorate. In particular, comments from the Inspectorate in this Opinion are without prejudice to any later decisions taken (e.g. on submission of the application) that any development identified by the Applicant is necessarily to be treated as part of a Nationally Significant Infrastructure Project (NSIP) or Associated Development or development that does not require development consent.
- 1.1.10 Regulation 10(3) of the EIA Regulations states that a request for a scoping opinion must include:
- (a) *a plan sufficient to identify the land;*
  - (b) *a description of the Proposed Development, including its location and technical capacity;*
  - (c) *an explanation of the likely significant effects of the development on the environment; and*
  - (d) *such other information or representations as the person making the request may wish to provide or make.*
- 1.1.11 The Inspectorate considers that this has been provided in the Applicant's Scoping Report. The Inspectorate is satisfied that the Scoping Report encompasses the relevant aspects identified in the EIA Regulations.
- 1.1.12 In accordance with Regulation 14(3)(a), where a scoping opinion has been issued in accordance with Regulation 10 an ES accompanying an application for an order granting development consent should be based on *'the most recent scoping opinion adopted (so far as the Proposed Development remains materially the same as the Proposed Development which was subject to that opinion)'*.
- 1.1.13 The Inspectorate notes the potential need to carry out an assessment under The Conservation of Habitats and Species Regulations 2017. The 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 Sections 1, 2 and 3 of the Scoping Report.

2.2.2 The Proposed Development is to be located at the current Oikos facility in Canvey Island, Essex which has been established at this location since the 1930s. The current facility provides storage and handling capability for fuel, oil and petroleum bulk liquid products. The current facility has three existing jetties two of which are operational, numerous storage tanks of various sizes located over four compounds holding up to 271,737m<sup>3</sup> of fuel, oil and petroleum bulk liquid products, internal roads, an office building and an area where storage tanks were previously located to the south of the site but have since been removed leaving the area clear. The existing site plan is provided at Figure 2.1 (page 20) of the Scoping Report. A location and boundary plan are provided at Figures 1.1 and 1.2 (pages 14 and 15) of the Scoping Report.

2.2.3 The Proposed Development will provide nine new storage tank compounds (for fuels, oil and petroleum-based products) to increase the current storage capacity of the existing operation by approximately 328,000m<sup>3</sup> (up to approximately 598,000 m<sup>3</sup>). The Proposed Development will strengthen the operational capacity of the current facility by constructing additional marine loading infrastructure at two of the three existing jetties, dredging a deeper berth pocket to service jetty 2, making improvements to the main entrance of the site, installing additional road tanker loading facilities, new pipeline connections, providing associated operational infrastructure, making improvements to utilities and buildings, making alterations to existing tanks and pipelines currently within the facility and providing off-site ecological mitigation.

2.2.4 The proposed application site is located on the south-west corner of Canvey Island and covers approximately 27.5ha. The site is located on the bank of the River Thames and constitutes port operational land in the freehold ownership of the Port of London Authority which is on long-term lease to the Applicant. The site is served by Haven Road in the North East.

2.2.5 The land use in the surrounding area includes the Thames Estuary and Marshes Site of Special Scientific Interest (SSSI), Special Protection Area (SPA) and Ramsar and Holehaven Creek SSSI (both sites are located behind a 1.5-2m AOD flood defence wall), Canvey Wick SSSI, HBC Vehicle services, Calor Liquid Petroleum Gas import terminal, the Thames Oilport and the Shell Haven



Terminal and the DP World London Gateway Port. A footpath runs southerly adjacent to the site. The surrounding land is depicted at Figure 2.2 of the Scoping Report.

## 2.3 The Planning Inspectorate's Comments

### Description of the Proposed Development

- 2.3.1 The ES should include a description of the Proposed Development comprising at least the information and maximum parameters on the site, design, size and other relevant features of the development and description of the physical characteristics of the whole development including the land-use requirements during construction and operation; this should be supported by Figures; the Applicant should specifically address the lack of detail in the description of pipeline construction and design. The ES should also quantify and detail the current operational capacity of the facility and the expected maximum potential of operational capacity once construction is complete e.g. the number of vessels serving the site has not been quantified in the Scoping Report and the expected increase and maximum vessels able to serve the site once operational is unknown.
- 2.3.2 The ES should detail and quantify works and features that require to be removed and/or demolished in preparation for the construction of the Proposed Development. The need for such works is mentioned in paragraphs 3.3 and 3.4 of the Scoping Report, but there is limited detail in this regard. The Scoping Report also states that the site will be levelled before construction begins in paragraph 3.7. The ES should describe all such works in detail and include the existing and proposed ground levels and the nature and quantity of the materials required for these works.
- 2.3.3 The description of the Proposed Development in the Scoping Report proposes to move an existing ecological mitigation area, currently located within the site boundary and created as the result of a previous planning permission, to a location outside of the application site boundary although an exact location has not yet been decided. The Inspectorate requests that the ES explains the relationship between the measures required for previous planning permissions and those proposed in relation to the Proposed Development. The Applicant should take care to ensure that mitigation proposals are not 'double-counted' in this way. The ES should quantify and describe the land required for the proposed ecological mitigation areas and provide evidence of any agreement reached with consultation bodies in this regard.
- 2.3.4 The ES should include a full and detailed description of the current site; for example, in section 2 of the Scoping Report, there is no description of the ecological mitigation areas within the Proposed Development's boundary and in paragraph 2.12 it states that the '*southern part of the Oikos Facility is largely clear of infrastructure*', however, it remains unclear which part of the site is being described and what 'largely clear' actually means.
- 2.3.5 The Scoping Report explains that the operational lifetime of the Proposed Development will extend up to 2050, although the length of time in years is not

explicitly stated. Paragraph 4.32 of the Scoping Report states that impacts associated with the site preparation, construction and operation phases of the Proposed Development will be assessed but it omits the decommissioning phase. The Inspectorate considers that the ES should include an assessment of the decommissioning impacts of the Proposed Development or provide a detailed and justified explanation of why this is not necessary. The Scoping Report should also clearly define the anticipated operational lifetime of the Proposed Development in the description of the development; this is particularly important when assessing the impacts of climate change.

- 2.3.6 The Scoping Report explains that there is uncertainty with regards to the construction methods, phasing, traffic and other works including the delivery of off-site mitigation. The Applicant should make effort to develop certainty in this regard and refine relevant parameters to ensure that the ES assessments are robust. Where a degree of flexibility is required in the design, a worst-case scenario can be applied to enable a robust assessment of likely significant effects.

### **Alternatives**

- 2.3.7 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'.
- 2.3.8 The Inspectorate acknowledges the Applicant's intention to consider alternatives within the ES as stated in paragraph 3.44 of the Scoping Report. 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**

- 2.3.9 The Applicant's attention is drawn to the Inspectorate's Advice Note Nine 'Using the 'Rochdale Envelope'<sup>1</sup>, which provides details on the recommended approach to follow when incorporating flexibility into a draft DCO (dDCO).
- 2.3.10 The Applicant should make every attempt to narrow the range of options and explain clearly in the ES which elements of the Proposed Development have yet to be finalised and provide the reasons. At the time of application, any Proposed Development parameters should not be so wide-ranging as to represent effectively different developments. The development parameters will need to be clearly defined in the dDCO and in the accompanying ES. It is a matter for the Applicant, in preparing an ES, to consider whether it is possible to robustly assess a range of impacts resulting from a large number of undecided parameters. The description of the Proposed Development in the ES must not

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<sup>1</sup> Advice Note nine: Using the Rochdale Envelope. 2012. Available at:  
<https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/>

be so wide that it is insufficiently certain to comply with the requirements of Regulation 14 of the EIA Regulations.

- 2.3.11 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.

## **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 in so far as the Proposed Development remains materially the same as the Proposed Development described in the Applicant's Scoping Report.
- 3.1.3 The Inspectorate has set out in this Opinion where it has/ has not agreed to scope out certain aspects/ matters on the basis of the information available at this time. The Inspectorate is content that the receipt of a Scoping Opinion should not prevent the Applicant from subsequently agreeing with the relevant 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 effort to ensure that this Scoping Opinion is informed through effective consultation with the relevant consultation bodies. Unfortunately, at this time the Inspectorate is unable to receive hard copy consultation responses, and this may affect a consultation body's ability to engage with the scoping process. The Inspectorate also appreciates that strict compliance with the UK Government's COVID-19 advice may affect a consultation body's ability to provide their consultation response. The Inspectorate considers that Applicants should make effort 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 DCO requirements (or other suitably robust methods) and whether relevant consultation bodies agree on the adequacy of the measures proposed.

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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/>

## 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);
  - NPS for Ports (NPSfP);

## 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 (e.g. a dDCO requirement);
  - to describe any remedial measures that are identified as being necessary following monitoring; and
  - to identify where details are contained in the Habitats Regulations Assessment (HRA report) (where relevant), such as descriptions of European sites and their locations, together with any mitigation or compensation measures, are to be found in the ES.
- 3.3.2 In paragraph 4.26 of the Scoping Report it states that each aspect assessment will define its own study area. Study areas are not sufficiently justified throughout the Chapters of the Scoping Report, for example, for Noise and Vibration in paragraph 13.3 and Flood Risk and Surface Water in paragraph 15.2 amongst others. The ES should define the study areas for each aspect Chapter based on the Zone of Impact (ZOI) with reference to desk and/or field studies, consultation and relevant guidance.
- 3.3.3 In paragraph 4.28 of the Scoping Report it indicates that aspect Chapters in the ES will describe the consultation that has taken place and with whom. The Inspectorate considers that alongside this description should be evidence of the consultation and the Applicant should make effort to agree the assessment methods, conclusions and any proposed mitigation measures with the relevant bodies.

- 3.3.4 Figures are presented at the end of each Chapter rather than separately or within the text where they are referenced. It would be helpful to the reader for Figures to be presented in the ES either where the text references the Figures or else provide them in a separate document so that they are easy to navigate to whilst following the assessment.
- 3.3.5 There are a number of minor discrepancies throughout the Scoping Report, for example, the list of data sources used for the Water Environment assessment are presented in Table 7.1 but in paragraph 7.10 the text references Table 9.3; it is important that all information in the ES is accurate and consistent, particularly when referencing.

### **Baseline Scenario**

- 3.3.6 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.
- 3.3.7 In light of the number of other developments within the vicinity of the Proposed Development application site, the Applicant should clearly state which developments will be assumed to be in construction or operational as part of the future baseline. In Table 21.1 the anticipated construction and operation timelines for other development are not provided; the ES should include this information to understand how the other developments will interact with the Proposed Development.

### **Forecasting Methods or Evidence**

- 3.3.8 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.
- 3.3.9 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. There is inconsistency in the terminology used to define what a 'significant' effect would be (paragraph 4.36 uses different terminology to that used in Chapters 10, 13 and 18), some Chapters do not define impact magnitude and receptor sensitivity or how they combine to establish the significance of effects (Chapters 6, 9, 10, 14, 15, 19, and 20), some do not identify sensitive receptors at all or explain how they were chosen in line with relevant guidance (Chapters 7, 10, 13, 15, 17, 18 and 20) and some do not provide or explain what guidance will be used to inform and enable understanding of significance (Chapters 11 and 12). Any departure from that methodology should be described in individual aspect assessment Chapters.
- 3.3.10 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**

- 3.3.11 The EIA Regulations require an estimate, by type and quantity, of expected residues and emissions. Specific reference should be made to water, air, soil and subsoil pollution, noise, vibration, light, heat, radiation and quantities and types of waste produced during the construction and operation phases, where relevant. This information should be provided in a clear and consistent fashion and may be integrated into the relevant aspect assessments.
- 3.3.12 Onshore waste and/or spoil has not been considered in the Scoping Report although it is stated in the Report at paragraph 3.7 that the site will be levelled and at paragraph 20.32 that tanks and pipes will be removed/demolished as part of the construction of the Proposed Development. Additionally, it is unclear whether pipes will be constructed above or below ground. The ES should include an assessment of effects arising from onshore waste/spoil generation including residues generated as a result of the activities listed in this paragraph.

### **Mitigation and Monitoring**

- 3.3.13 Any mitigation relied upon for the purposes of the assessment should be explained in detail, having regards to the mitigation hierarchy and previous research/modelling/ongoing discussion. The Applicant should make effort to agree mitigation methods with relevant consultation bodies. The ES should describe how measures required and applicable to the Proposed Development 'fit' with any existing mitigation measures currently in place. The likely efficacy of the mitigation proposed should be explained with reference to residual effects. The ES should also address how any mitigation proposed is secured, with reference to specific DCO requirements or other legally binding agreements.
- 3.3.14 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**

- 3.3.15 The ES should include a description and assessment (where relevant) of the likely significant effects resulting from accidents and disasters applicable to the Proposed Development. The Applicant should make use of appropriate guidance (e.g. that referenced in the Health and Safety Executives (HSE) Annex to Advice Note 11) to better understand the likelihood of an occurrence and the Proposed Development's susceptibility to potential major accidents and hazards. The description and assessment should consider the vulnerability of the Proposed Development to a potential accident or disaster and also the Proposed Development's potential to cause an accident or disaster. The assessment should specifically assess significant effects resulting from the risks to human health, cultural heritage or the environment. The Applicant should ensure that the assessment reflects the nature and characteristics of the Proposed Development, taking into consideration the potential for catastrophic failure of the storage tanks. Any measures that will be employed to prevent and control significant effects should be presented in the ES.

- 3.3.16 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**

- 3.3.17 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**

- 3.3.18 Schedule 4 Part 5 of the EIA Regulations requires a description of the likely significant transboundary effects to be provided in an ES. The Scoping Report has not indicated whether the Proposed Development is likely to have significant impacts on another European Economic Area (EEA) State.
- 3.3.19 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.
- 3.3.20 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 impacts and if so, what these are, and which EEA States would be affected.

### **A Reference List**

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

## **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 circumstance.



- 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 effort 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 paper and electronic documents with their confidential nature clearly indicated in the title and watermarked as such on each page. The information should not be incorporated within other documents that are intended for publication or which the Inspectorate would be required to disclose under the Environmental Information Regulations 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-and-cookie/>

## 4. ASPECT BASED SCOPING TABLES

### 4.1 Terrestrial Ecology

(Scoping Report section 6)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.1.1	6.18	Breeding Bird surveys to inform the baseline	<p>The Scoping Report proposes scoping out breeding bird surveys on site as a Phase One Habitat survey determined that there was no suitable habitat. However, a pair of Black Redstarts bred on site in 2019 therefore, this suggests that there is favourable habitat even if it is not the usual habitat considered 'suitable'. If no survey is undertaken to determine whether birds are present on site, then the baseline will remain uncertain.</p> <p>On this basis the Inspectorate does not agree that breeding bird surveys can be omitted to inform the baseline at this stage.</p>
4.1.2	6.19 to 6.23 and 6.40 and Table 6.4	Important Ecological Features/ Sensitive Receptors (IEFs)	<p>The Scoping Report establishes that only ecological features deemed to be important will be taken forward for assessment in the ES. The Scoping Report does not explain how guidance referenced would be applied to inform professional judgement i.e. to categorise importance. It is therefore unclear precisely how the Important Ecological Features listed in paragraph 6.40 have been identified and why other features were not.</p> <p>Accordingly, the Inspectorate does not agree to the approach since there is a lack of clarity in this regard. The Inspectorate considers that the ES should assess impacts to ecological receptors of every description where significant effects are likely to occur. The Applicant should make effort to agree the relevant features to be assessed in the ES with relevant consultation bodies.</p>

<b>ID</b>	<b>Ref</b>	<b>Applicant's proposed matters to scope out</b>	<b>Inspectorate's comments</b>
4.1.3	Table 6.4 and Figure 6.1	Vange and Fobbing Marshes SSSI and Northward Hill SSSI	<p>Designated sites within the study area are identified in Tables 6.4 and 6.5 of the Scoping Report, however, this omits Vange and Fobbing Marshes SSSI and Northward Hill SSSI which are identified within the 5km study area in Figure 6.1.</p> <p>The ES should either include these designated sites in the assessment or else provide sufficient evidence to scope them out.</p>

<b>ID</b>	<b>Ref</b>	<b>Other points</b>	<b>Inspectorate's comments</b>
4.1.4	6.44	Impacts to Important Ecological Features (IEFs)	<p>The Scoping Report does not consider there to be an impact to habitats with potential to support breeding birds, otters and water vole on site following the results of a desk study, current knowledge of the site and previous surveys undertaken. However, no evidence of these results/research is provided with the Scoping Report and it is unclear which other habitats are anticipated to be impacted by the Proposed Development and how/why.</p> <p>The initial anticipated potential impacts listed in paragraph 6.44 do not include breeding birds, otters or water voles but the Inspectorate considers possibility remains for them to be impacted by the Proposed Development.</p> <p>The Inspectorate considers that the ES should include an assessment of impacts to ecological receptors where significant effects are likely to occur.</p>
4.1.5	6.16 and Table 6.2	Results of previous surveys	<p>The Scoping Report anticipates using previous surveys to inform the baseline in the ES what were conducted on and around the wider Oikos facility. Although information regarding these surveys are indicated in Table 6.2, not enough detail is provided; any results of</p>

ID	Ref	Other points	Inspectorate's comments
			previous surveys, their locations and dates they were carried out should be provided in the ES as evidence supporting the assessment.
4.1.6	6.35 and 6.36	Location and baseline of off-Site Mitigation Area	<p>Paragraphs 6.35 and 6.36 of the Scoping Report describes the baseline for the proposed off-site mitigation area however, it is unclear what has been used to inform this baseline (surveys are mentioned but there is no indication of what surveys were carried out or when and over what area) and the area being described is not delineated.</p> <p>The ES should explain how the baseline of the proposed off-site mitigation area has been determined and provide details of any surveys undertaken to inform this and the area should be delineated on a Figure.</p>
4.1.7	6.34	Wider Oikos Facility	The Scoping Report mentions the 'wider Oikos facility' a number of times in the Terrestrial Ecology chapter yet it is not determined exactly which area this is referring to. The ES should be clear in defining which areas are being referenced to ensure that this is consistent.
4.1.8	6.47	Habitats Regulations Assessment (HRA) significance	<p>The Scoping Report lists the anticipated potential impacts in paragraph 6.51 to European Sites. This excludes potential impacts from dredging such as vibration, change in turbidity and vessel displacement. Additionally, operation impacts are not specified, for example impacts occurring from disturbance due to increase vessel movement and pollution.</p> <p>The ES should assess all potential impact pathways likely to result in significant effects and occurring as a result of construction, operation and decommissioning of the Proposed Development.</p>
4.1.9	6.56	Mitigation	The Scoping Report anticipates that off-site mitigation will deliver enhancement, strengthening of existing ecological networks and re-

ID	Ref	Other points	Inspectorate's comments
			<p>creation of habitats lost as a result of the Proposed Development/ creation of new habitats with similar or higher distinctiveness.</p> <p>The ES should explain the reasoning behind and provide evidence for selecting off-site mitigation over other potential mitigation methods in line with the mitigation hierarchy. The methods to deliver mitigation should be decided through consultation and effort should be made to agree the approach with the relevant consultation bodies.</p>
4.1.10	6.34 and Table 6.4	Aquatic Invertebrates and cross-referencing to the marine chapter	<p>Marine ecology and terrestrial ecology are considered in different aspect Chapters in the Scoping Report and are anticipated to be assessed separately in the ES. In the Terrestrial chapter of the Scoping Report, Table 6.4 includes aquatic protected sites yet aquatic invertebrates are not considered in either the terrestrial or marine ecology Chapters.</p> <p>The ES should cross reference between both the terrestrial and marine ecology Chapters and ensure that significant effects to sensitive receptors are assessed in the ES.</p>
4.1.11	Table 6.1	UK Biodiversity Action Plan (BAP) Habitats and Ancient Woodland	<p>Table 6.1 does not include BAP habitats or ancient woodland in the desk study undertaken. These are considered potential sensitive receptors and should be included in the desk-based study to inform the assessment in the ES.</p>

## 4.2 Water Environment

(Scoping Report section 7)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.2.1	7.6 and Table 7.7	Benfleet and Southend Marshes SPA and other designated sites	Benfleet and Southend Marshes SPA is not included in the list of sensitive receptors in Table 7.7. Paragraph 7.6 of the Scoping Report suggests that the impacts from dredging will extend from Stanford-le-Hope, approximately 8km west of the Proposed Development to Southend-On-Sea, approximately 11km west of the Proposed Development. The Benfleet and Southend Marshes SPA fall within this study area. The Scoping Report includes no specific reason for omitting consideration of impacts to this designated site. The Inspectorate also notes that the dredging method and likely ZOI has not been yet been determined. For the avoidance of doubt, the Applicant should take care to ensure that relevant designated sites and sensitive receptors located within a study area are assessed where significant effects are likely.

ID	Ref	Other points	Inspectorate's comments
4.2.2		Tidal influence and saline intrusion	Impact pathways such as tidal influence and saline intrusion have been omitted from the Scoping Report; the impacts should be assessed where significant effects are likely to occur.
4.2.3	7.6 to 7.9	Modelling to determine ZOI	The Inspectorate recommends that the assessment uses appropriate up-to-date modelling of the dredger sediment plume and hydrodynamic impacts to determine the ZOI.
4.2.4	3.23	Sewerage infrastructure	The Scoping Report suggests that there may be upgrades and additions to the existing sewage network in paragraph 3.23. The ES

ID	Ref	Other points	Inspectorate's comments
			should include a description and assessment of the impacts resulting from upgrades and additions to the existing sewage network/treatment facilities. Such works should be depicted on and appropriately detailed Figure to aid interpretation.
4.2.5	7.58	2008 Modelled water levels in the River Thames	The Scoping Report refers to the Environment Agency's (EA) 2008 modelled water levels in the River Thames. The Inspectorate understands that this has now been superseded by the Thames Estuary 2100 Extreme Water Levels dataset which should now be used to inform the assessment.
4.2.6	7.75 to 7.87	Dredging method	The Scoping Report does not explain how the dredging method will be decided. Having regard to the history of land use at the site there is potential for the sediment disturbed during dredging to contain high levels of organic contamination. Therefore, the choice of dredging method will be relevant to controlling the impacts from mobilisation of such material. The Applicant should make effort to agree the approach with relevant consultation bodies and the method applied should be considerate to the risk of significant effect. A full assessment with details of the confirmed method including how disposed materials will be dealt with should be provided in the ES.
4.2.7		River Works Licence	The ES should address any effects as a result of amendments to the existing river works license. The Applicant should make effort to agree the approach with the Port of London Authority.
4.2.8	7.79 and 7.80	Disposal from dredging activity	There Inspectorate considers that dredged material may require disposal at a registered site. The ES should include a description of how arisings will be dealt with should this be the case and should include an assessment of any significant effects where they are likely to occur.

## 4.3 Marine Ecology

(Scoping Report section 8)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.3.1	8.65 and 7.6	Benfleet and Southend Marshes SPA, Medway Marine Conservation Zone and Cockle and Saltmarsh bed habitats	<p>The Scoping Report proposes scoping out impacts to this SPA as it is located approximately 4.5km to the east of the marine elements of the Proposed Development. However, when determining the extent of potential impacts from dredging in paragraph 7.6, it states that previous modelling anticipated impacts to reach approximately 8km west and 11km east of the Proposed Development suggesting that there is potential for dredging to impact the marine ecology at Benfleet and Southend Marshes SPA and potentially other sites such as Medway Marine Conservation Zone and the cockle and saltmarsh beds in close proximity to Canvey Island.</p> <p>As such the Inspectorate does not agree to scope these sites out of the assessment in the ES.</p>
4.3.2	8.78 and 8.79	Vibration impacts from dredging	<p>The Scoping Report does not propose to include vibration as a potential impact on marine ecology receptors during construction and operation. The ES should assess impacts to marine ecology receptors including vibration impacts where significant effects are likely to occur.</p>
4.3.3	8.73 and 8.74	Bottlenose Dolphins and Seals	<p>As highlighted by the Port of London Authority, bottlenose dolphins (<i>Tursiops truncatus</i>) and seals are regularly recorded on Blyth sands in small groups which is not recognised in the Scoping Report. Accordingly, the Inspectorate considers these features should be included as sensitive receptors within the ES assessment.</p>



ID	Ref	Other points	Inspectorate's comments
4.3.4	8.36	Water Framework Directive (WFD) Compliance	The Inspectorate welcomes the intention to submit a WFD compliance assessment and advises that this is undertaken in consultation with the EA. The Applicant should ensure that any data or guidance used to inform this assessment is relevant and up to date.

## 4.4 Commercial and Recreational Navigation

(Scoping Report section 9)

ID	Ref	Applicant's proposed matter to scope out	Inspectorate's comments
4.4.1	9.29 to 9.32	Displacement, swamping and grounding of vessels, deviation and snagging of gear and anchors impacts	The Scoping Report does not include these potential impacts in the Initial Assessment of Likely Effects in paragraphs 9.30 and 9.31. The Inspectorate cannot agree to scope out these potential impacts due to the potential change in volume and movement patterns of vessels throughout the year as a result of the Proposed Development during the construction, operation and decommissioning phases. The ES should include an assessment of any significant effects where they are likely to occur.
4.4.2	9.29 to 9.32	Delays in marine traffic during operation	The Scoping Report does not consider potential impacts from delays at ports caused by adverse weather and industrial related issues. The exclusion of these impacts is not justified and considering the industrial nature of the Proposed Development, the Inspectorate cannot agree to scope out these matters. The ES should include an assessment of any significant effects where they are likely to occur.

ID	Ref	Other points	Inspectorate's comments
4.4.3	Table 9.3	Frequency definition	The methodology proposes to use frequency of impact as relevant factor in determining magnitude. Accordingly, the ES should ensure that the 'frequency' is defined and quantified in order to aid understanding.

ID	Ref	Other points	Inspectorate's comments
4.4.4	9.22 to 9.27	Baseline and vessels related to the operation of the Proposed Development	The Scoping Report does not define the type, size, routing or volumes of recreational and commercial vessels in the baseline or in the anticipated operational phase of the development; this should be described in the ES. This should include consideration of all anticipated vessel movements regardless of their port of origin.

## 4.5 Traffic and Transport

(Scoping Report section 10)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.5.1	10.12	Non-Motorised Users (NMUs) and Cyclists	Potential impacts to these receptors are not listed in paragraph 10.12. The ES should include cyclists and other road users in the assessment of significant effects and specifically include users of the footpath that runs south of the site.
4.5.2	10.41	Operational traffic movements - additional jobs	<p>The Scoping Report states that there will be very few additional jobs created on site as a result of the proposals and that at this stage these movements are not considered to be significant and will be reviewed as the assessment progresses.</p> <p>Whilst this is not explicitly scoped out of the assessment, the Inspectorate requires that the ES clearly states the number of additional traffic movements associated with the Proposed Development and assesses any likely significant effects that will occur as a result.</p>

ID	Ref	Other points	Inspectorate's comments
4.5.3	10.4 to 10.9	Affected Road Network (ARN)	<p>The ARN has not yet been defined and it is not stated in the Scoping Opinion that this will be defined.</p> <p>The ES should include definition of the ARN in line with relevant guidance and effort should be made to agree the approach with the relevant consultation bodies. The ARN should be used to inform the extent of the study area and any roads where significant effects are likely to occur should be included in the assessment.</p>

ID	Ref	Other points	Inspectorate's comments
4.5.4	10.11	Current practice and guidance	The Scoping Report states that the Transport Assessment (TA) will conform to current practice and guidance and refers to both the NPPF and DfT 2013. The Applicant should consider the using the Guidelines for the Assessment of the Environmental impact of Road Traffic (GEART) and the relevant traffic and transport assessment aspects contained within section 5 of the National Policy Statement for Ports (2012) to inform their assessment. The ES should list all guidance and data sources used to inform the TA and how it has been used to inform the assessment of traffic and transport.
4.5.5	10.20 and 10.21	Consultation	The Applicant should make effort to agree the approach to the assessment of traffic and transport with relevant consultation bodies including Highways England.
4.5.6	10.10 to 10.32 and Table 10.2	Baseline data and existing environment	<p>Paragraph 10.35 and Table 10.2 present data from previous traffic surveys carried out in 2018 and state that these will be updated. There is no other indication as to what will be used to determine the baseline conditions i.e. if a desk study will be used and if so, which sources of information will be used.</p> <p>The ES should describe how the baseline has been established and provide details of any desk-studies or field surveys used/undertaken for this purpose. Any field surveys the location, dates and times should be detailed along with any modelling software used in the assessment. The Applicant should make effort to agree surveys and the approach to data collection with relevant consultation bodies.</p>
4.5.7	10.39 and 10.40 and 10.46	Worst-case scenario	The Proposed Development has the capacity to operate 24hours a day, 7 days a week, 364days per year. In paragraph 10.39 of the Scoping Report, the anticipated HGV movements for the 7 new loading bays is based on this assumption. However, it is deemed unlikely that the Proposed Development will be at full capacity all year. The Applicant should take care to ensure that suitable

ID	Ref	Other points	Inspectorate's comments
			<p>assumptions applicable to the extent of the powers requested in their dDCO are taken into account in the ES.</p> <p>Where uncertainty exists, the ES should assess the maximum parameters of the Proposed Development to ensure a worst-case scenario has been captured and this should reflect the maximum parameters permitted in the dDCO.</p>
4.5.8	10.39 to 10.43	Future baseline	<p>It is unclear what baseline the operational traffic and transport impacts are compared to and no future baseline has been determined.</p> <p>The ES should establish exactly when the Proposed Development is expected to be fully operational following completion of construction and determine a future baseline based on an appropriate methodology. Effort should be made to agree the approach to determining the baseline with relevant consultation bodies from which operational impacts can be assessed.</p>
4.5.9	10.43 and 10.49	Preliminary conclusions	<p>The Scoping Report provides a preliminary conclusion for both the operation and construction phases that there are unlikely to be significant effects in terms of traffic and transport as a result of the Proposed Development considering the sensitivity of receptors and the traffic anticipated to be generated. The Scoping Report does not identify receptors or define their sensitivity, the study area is not justified or clearly delineated and much of the baseline information is not supported by reference to data sources therefore the Inspectorate cannot be content with this preliminary conclusion.</p> <p>The ES must base conclusions on a robust assessment supported by appropriate Figures, guidance, data sources, field surveys, an appropriate study area and methodology and consultation.</p>
4.5.10		Cross-referencing	<p>Impacts from traffic and transport overlap with impacts from other aspects such as air quality, noise and vibration and ecology. It should be clear within the ES how the outcomes of the traffic modelling have</p>

ID	Ref	Other points	Inspectorate's comments
			informed other relevant assessments and appropriate cross-referencing should be made to other relevant aspect Chapters explaining the nature of the interaction and where potential impacts are assessed.

## 4.6 Air Quality

(Scoping Report section 11)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.6.1	11.27 and 11.30	AQMA's and NO <sub>x</sub> exceedances	<p>Paragraph 11.27 of the Scoping Report incorrectly states that the nearest AQMA to the Proposed Development is located adjacent to the A13 in North Stifford, approximately 18 km to the west of the project site. There are in fact several AQMA's closer to the Proposed Development, the closest being Rayleigh AQMA within Rochford District Council, which is approximately 7 km north west of the Proposed Development. The Scoping Report does not include a Figure to delineate the study area and therefore it is unclear how the ZOI for air quality extends and whether these AQMA's. It is also relevant that the ZOI for air quality will relate to the information obtained from the TA and effects to and from increased traffic.</p> <p>The Inspectorate does not agree that impacts to AQMA's can be scoped out of the ES. The ES should assess impacts to AQMA's in the surrounding area where significant effects are likely to occur.</p>
4.6.2	11.45	Construction phase - plant emissions	<p>The Scoping Report proposes to scope out plant emissions during the construction phase, yet the number, size and type of plant machinery required for construction has not yet been determined and therefore the potential air quality impacts of this machinery are unknown.</p> <p>The Inspectorate does not agree to scope this matter out on this basis and the ES should include and assessment of these impacts where significant effects are likely to occur.</p>
4.6.3	11.60 and Table 11.2	Operational vessel emissions and DEFRA guidance	<p>The Scoping Report proposes to scope operational vessel emissions out of the ES assessment due to the number of vessel movements anticipated and being significantly below the DEFRA guidance criteria</p>



ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			<p>of 5,000 movements per year. However, this guidance is for the designation of AQMAs rather than EIA assessment,</p> <p>The Inspectorate cannot agree to scope out this matter on this basis; the ES should provide justification that guidance used is applicable to determining significance in EIA assessment.</p> <p>The ES should also explain how operation of the Proposed Development will support the delivery of objectives identified in the Clean Maritime Plan (2019) and the Port Air Quality Strategies (2019) guidance documents.</p>
4.6.4	11.62 to 11.64 and Table 11.2	Volatile Organic Compounds (VOC) operational fugitive emissions	<p>The Scoping Report proposes to scope out operational fugitive emissions (VOCs) on the basis that products stored on site would not contain the principal VOC (Benzene) and if they should in future, this would be controlled via licence already obtained from the Local Authority Pollution and Prevention Control.</p> <p>Whilst the Inspectorate accepts this, there is no consideration for other VOC emissions and whether these could cause any potential impacts and subsequent effects.</p> <p>The Inspectorate cannot agree to scope this matter out and on this basis the ES should include an assessment of all potential VOCs where significant effects are likely to occur.</p>

ID	Ref	Other points	Inspectorate's comments
4.6.5	11.3 to 11.5 and 11.37	Study area, inclusion of vessels and revised identified receptors	<p>The study area is based on screening criteria from IAQM 2016 guidance on assessment of dust during construction and demolition. This is not considered an appropriate study area for emissions other than dust, PM<sub>10</sub> and PM<sub>2.5</sub> and only from construction plant and traffic.</p>

ID	Ref	Other points	Inspectorate's comments
			<p>The ES should describe the study area for the assessment, and this should be established in line with relevant guidance and in consultation with relevant consultation bodies. The study areas should be based on the ZOI for all types of vehicles associated with the Proposed Development including traffic, on site plant machinery and vessel movements serving the site; the extent of the study area should be depicted on a Figure and informed by the TA.</p> <p>Receptors identified for the assessment should be reviewed based on this appropriate study area.</p>
4.6.6	11.4 and 11.46 to 11.54	Relationship between air quality assessment and TA	<p>The Scoping Report chapter does not explain the relationship between the air quality assessment, the TA and the Traffic and Transport assessment Chapter.</p> <p>The air quality assessment should be informed by the TA and Traffic and Transport assessment particularly with regards to defining the study area and the potential impact from vehicle movements during both construction and operation.</p>
4.6.7	11.5 and Figures 11.3 and 11.4	Identification of sensitive receptors	<p>The Scoping Report identifies a number of human and ecological receptors within the surrounding area based on screening criteria provided by IAQM guidance. Currently, the Figures provided with the Chapter in the Scoping Report (Figures 11.3 and 11.4) omit Canvey Wick SSSI and Local wildlife sites amongst others mentioned in paragraph 11.5. The ES should provide a Figure depicting the appropriate study area and the sensitive receptors considered within the assessment; effort should be made to agree the approach with the relevant consultation bodies.</p>
4.6.8	11.6 to 11.21	Impact assessment	<p>The Scoping Report states that the assessment of impacts generated during the construction and operational phases will be based on</p>

ID	Ref	Other points	Inspectorate's comments
			<p>relevant guidance and criteria but there is limited detail in this regard.</p> <p>The ES should include details of any criteria used within the assessment to enable understanding of how the assessment has been carried out and against which criteria the Proposed Development has been assessed.</p>
4.6.9	11.6 to 11.21	Future baseline	<p>The Applicant should ensure that the future baseline includes the consideration of anticipated change in terrestrial vehicle fleet and numbers visiting the site as well as the number and vessel types in operation.</p>
4.6.10	11.27	AQMA screening criteria	<p>The Applicant has proposed that the IAQM/EPUK screening criterion of 25 HDV AADT should not apply on the A13 within North Stifford AQMA and instead the less stringent criterion of 100 HDV AADT is appropriate. The Inspectorate is not able to agree with this approach from the information provided. In the most recent Air Quality Annual Status Report (2019), Thurrock Council has measured exceedances of annual mean NO<sub>2</sub> within the North Stifford AQMA. The Applicant should make effort to discuss and agree their proposed approach with relevant consultation bodies including Thurrock Council.</p> <p>The Applicant should include all AQMAs in the road traffic dispersion modelling where there is a potential increase due to the Proposed Development in HDV of 25 AADT or more.</p>

## 4.7 Greenhouse Gases

(Scoping Report section 12)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.7.1	12.12 and 12.32 and Table 12.1	Minor GHG emissions sources	<p>The Scoping Report follows IEMA guidance in that any GHG emission sources which contribute less than 5% of the total Proposed Development's GHG footprint are proposed to be scoped out of the ES. GHG from construction site plant, refrigerant losses and F-gas use, waste disposal and water consumption and treatment is proposed to be scoped out yet there is no evidence demonstrating how the emissions from these features have been quantified and explaining whether they actually contribute &lt;5% of the total GHG footprint of the Proposed Development. The total GHG footprint of the Proposed Development is currently unknown. There is also no evidence to explain if the cumulative contribution of these features has been taken into account at this stage.</p> <p>The Inspectorate is, however, content that if the ES includes evidence to demonstrate that the features identified in the Scoping Report will indeed contribute &lt;5% of total GHG then it can be scoped out.</p>

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.7.2	Paragraph 12.33 and Table 12.1	Land use changes	<p>The Scoping Report proposes to scope out land use change on the basis that no land use change is involved as part of the Proposed Development. However, land use change is proposed in that the site is to be levelled, existing areas are to be decommissioned and an ecological mitigation area is to be moved and created. The scale, location and characteristics of these proposals is currently undecided. Land use change of this type has potential to increase or reduce (e.g. though increased sequestration) GHG emissions but the detail is currently lacking.</p> <p>On this basis, the Inspectorate does not agree to scope this matter out and considers that they should be scoped into the assessment in the ES.</p>
4.7.3		Impacts from increased storage capacity	<p>The Applicant should consider the need to undertake a GHG lifecycle analysis for the Proposed Development having regard to the anticipated increase in fuel storage capacity and the consequential impact to GHG emissions from fuel stored at the site. The assessment should be considered alongside UK Government commitments to net zero and the efforts to decarbonise the UK economy.</p>

ID	Ref	Other points	Inspectorate's comments
4.7.4	12.5	Resilience to Climate Change	<p>The Scoping Report states that the impact of future climate change on the resilience of the Proposed Development will be examined in individual aspect chapters of the ES. The ES should cross-reference to these Chapters where relevant.</p>

ID	Ref	Other points	Inspectorate's comments
4.7.5	12.11	GHG Footprint	<p>The construction/operation activities are not yet fully established but are relevant to developing the GHG footprint and the list of emission sources has not been agreed with the relevant consultation bodies. Therefore, the Inspectorate cannot be content that all emissions sources have been identified.</p> <p>The ES should ensure there is robust justification for the emission sources used to determine the GHG footprint of the development.</p>
4.7.6	12.14	GHG emission factors	<p>The Scoping Report proposes to apply emission factors from published sources to calculate the Proposed Development's GHG emissions.</p> <p>The ES should provide a list of the literature/guidance/consultation used to determine the appropriate factors applied to calculate the GHG emissions for the Proposed Development.</p>
4.7.7	12.25	Existing Baseline Environment and methodology	<p>The Scoping Report does not characterise the baseline for GHG's or provide a methodology for establishing a baseline.</p> <p>The ES should provide a methodology for, and characterisation of the existing GHG environment to enable an assessment of significant effects.</p>
4.7.8	12.10	Scope 1, 2 and 3 emissions	<p>Although emissions are separated into scope 1, 2 and 3 whose definitions are explained in the Scoping Report, there is not definition of what these gases might be or how they will be defined.</p> <p>The ES should explain how scope 1, 2 and 3 gas emissions will be defined and list the gases included in line with relevant literature, guidance and/or consultation.</p>

ID	Ref	Other points	Inspectorate's comments
4.7.9		Supply chain and suppliers	The ES should assess significant effects from GHG emissions, associated with the Proposed Development's supply chain. Any assumptions applied in relation to this assessment should be explained and justified.

## 4.8 Noise and Vibration

(Scoping Report section 13)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.8.1	13.5	Noise impacts on ecological receptors	The Inspectorate agrees to scope out the assessment of ecological receptors from the noise and vibration aspect Chapter on the basis that these impacts will be assessed in relevant ecology aspect Chapters. The ES should appropriately cross-reference information in relevant aspect Chapters including any relevant surveys that underpin the assessment.
4.8.2	13.10	Dredging impacts	<p>The Scoping Report Paragraph 13.10 states that "<i>it is anticipated that there will be no vibration concerns</i>" regarding dredging activities. Although the Scoping Report does not state that this matter is to be scoped out of the ES, no further discussion on vibration impacts arising from dredging activities are discussed.</p> <p>As no evidence has been provided to justify the Applicant's statement, the Inspectorate is not content that vibration impacts arising from dredging activities can be scoped out from the ES. Accordingly, the ES should assess any likely significant effects associated with vibration from the proposed dredging activities.</p>

ID	Ref	Other points	Inspectorate's comments
4.8.3	13.9, and 13.10	Marine baseline	<p>The Scoping Report does not characterise the baseline for noise and vibration in the marine environment.</p> <p>The ES should characterise of the existing marine noise and vibration environment applicable to a recognised methodology which should also be clearly explained. This will enable a robust assessment of the</p>



			potential impacts to sensitive marine receptors in the relevant aspect Chapter(s).
4.8.4	13.18	Legislation, policy and guidance.	The Applicant should make effort to agree the approach to the assessment with relevant consultation bodies, however, they may wish to consider using the BS 5228-1 <i>Code for Practice for noise and vibration control on construction and open sites</i> .
4.8.5	13.20, Figure 13.1, and Table 13.4	Noise baseline	The Scoping Report does not explain how the location of receptors for baseline surveys has been determined and whether there is agreement with relevant consultation bodies in this regard.  The ES should explain the methodology applied in this regard including how the location, geographical and temporal scope of the surveys required to establish baseline were determined with reference to the anticipated ZOI.
4.8.6	Table 13.4	Noise baseline data	The Scoping Report provides a summary table of survey results.  Full data sets from surveys on which the assessment is based should be provided with the application so that summaries within the ES Chapters can be fully understood.

## 4.9 Ground Conditions

(Scoping Report section 14)

ID	Ref	Applicant's proposed matters to scope	Inspectorate's comments
4.9.1	14.5	Impacts to the Thames Estuary and nearby residential land uses	<p>The Scoping Report states that work already undertaken has not identified any contamination or impact pathways to the Thames Estuary and nearby residential land uses. No detail is provided in terms of what, where and when the previous assessment of potential contamination or impact pathways was carried out.</p> <p>The ES should include an assessment of impacts to the Thames Estuary and nearby residential land uses where significant effects are likely.</p>
4.9.2	14.15	Sensitive Receptors	<p>The Scoping Report lists SSSIs, SPAs, SACs and NNRs as sensitive receptors but omits Ramsar, non-statutory designated sites, National Parks and Marine Conservation Zones. The ES should assess impacts to all such sites where significant effects are likely to occur.</p>

ID	Ref	Other points	Inspectorate's comments
4.9.3	14.36	Initial Assessment of Likely Effects	<p>The Scoping Report states that assessment work has identified a small number of impacts posing unacceptable risks to sensitive receptors and lists 4 potential impacts. Whilst it is anticipated that previous survey work and further survey work (Phase I and II) will be provided with the application, effort should be made to agree the scope/applicability of this work with relevant consultation bodies.</p>

ID	Ref	Other points	Inspectorate's comments
4.9.4	14.8 to 14.11	Previous site investigations	The ES should describe the locations (supported by Figures) where previous site investigations were carried out, what investigations took place, when and over what timeframe.
4.9.5	14.14	Additional assessment	The Scoping Report states that where ' <i>site-specific criteria are exceeded by contaminant concentrations; risks are potentially significant and additional assessment may be required</i> '. The ES should describe the all assessment conducted and how they influence the assessment of significant effects.
4.9.6	14.31	Contamination and remediation on site	The Scoping Report states that there is 'some' contamination on site yet does not describe or quantify this contamination or locate it on a Figure. Additionally, the Scoping Report states that remediation works are being undertaken, but these lack detail and it is unknown to what extent this might influence the assessment. The ES should ensure that the baseline is appropriately described and quantified so that the works to be undertaken and the nature of the surrounding environment are described.
4.9.7	14.35	General management and monitoring on site	The ES should detail the current mitigation measures employed on site and clarify if/how they interact with and influence the findings in the assessment.

## 4.10 Flood Risk and Surface Water Drainage

(Scoping Report section 15)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.10.1	15.9, 15.16 and 15.33 to 15.36	Tidal flooding, overtopping/breaching of flood defences (and using UKCP18)	<p>The Scoping Report determines that the tidal flood risk to the Oikos facility is 'low' based on the 2010 SFRA and that overtopping/breaching of sea defences is also 'low' based on EA correspondence in 2016. These impacts are not included in the section 'Initial Assessment of Likely Effects'. The reasoning for not providing flood resilient design as set out in 15.38 are also based on these conclusions. A 2018 SFRA is referenced in paragraph 15.6 and it is not certain which SFRA will be used.</p> <p>UKCP18 is the latest update on climate change predictions for flooding sources which were published in 2018 and these are the projections used in The National Planning Policy Guidance (NPPG) on Flood Risk Assessment and Climate Change Allowances. It remains unclear whether these most recent allowances have been incorporated into the data on which the conclusion that these risks are 'low' are based as they are dated before the UKCP18 were published and before the NPPG was updated (last update was March 2020).</p> <p>On this basis, the Inspectorate cannot agree to scope out these impacts as it remains unclear whether the conclusion that risks are considered 'low' are based on up to date climate projections and consultation, bringing its reliability in question.</p> <p>The ES should apply up to date climate change scenarios and allowances with effort made to agree the approach with the relevant consultation bodies.</p>

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.10.2	15.33 to 15.36	Fluvial Flooding	<p>The Scoping Report states that '<i>previous assessment of flood risk undertaken at the Oikos Facility has concluded that...watercourses are at lower levels than...the project site such that there is unlikely to be a significant fluvial flood risk</i>'. Fluvial flood risk is not identified in the section of 'Initial Assessment of Likely Effects' and no detail is provided in terms of what, where and when the previous assessment of flood risk was carried out. Additionally, the site is to be levelled in preparation for the construction of the Proposed Development, yet no existing or finished site levels are provided.</p> <p>The Inspectorate cannot agree to scope out fluvial flooding based on the lack of evidence used to reach the conclusion that it is unlikely fluvial flooding will pose a significant risk to receptors.</p> <p>The ES should provide details of the existing and proposed site levels. Any significant effects associated with fluvial flooding should be assessed within the ES.</p>

ID	Ref	Other points	Inspectorate's comments
4.10.3	15.5 to 15.7 and 15.9	Discrepancies in Fluvial Climate change allowances inclusion of pluvial source flooding	The Scoping Report omits applying climate change allowances to fluvial flood sources in 15.7 although it is accounted for in 15.9. Also, pluvial sources are omitted in paragraph 15.5 but proposed to be included in paragraph 15.6. For clarification purposes, the ES should ensure that up to date climate change allowances are applied to sources of flooding including pluvial flooding as relevant.
4.10.4	15.9	Assessment methodology and residual effects	The Scoping Report sets out what is to be included in the ES Chapter in paragraph 15.9 but does not include an assessment methodology

ID	Ref	Other points	Inspectorate's comments
			or a summary of the residual effects following mitigation; these should be included in the ES Chapter.
4.10.5	15.41	Mitigation measures and the CEMP	Effort should be made to agree mitigation measures contained within the CEMP with the consultation bodies ensuring they are appropriate to the extent of the likely effect. In particular, consideration should be given to the finished floor levels, flood resilient/resistant construction, building safety, safe access to areas outside the 0.5% probability event and emergency flood plan. Details relied upon in the assessment should be secured via requirement in the dDCO or by other relevant legal mechanism. The ES should also consider and address whether existing flood defence infrastructure should require improvement to ensure that 'essential infrastructure' remains operational during flood events.
4.10.6	15.15 to 15.17	Consultation	<p>The Scoping Report determines that consultation will be undertaken with the EA, Essex County Council as the Lead Local Flood Authority and Castle Point Borough Council who produced the SFRA that will be used for the assessment.</p> <p>The Applicant should also make effort to consult relevant Internal Drainage Boards, sewerage undertakers and navigation authorities on the approach to the FRA.</p>
4.10.7	7.58	2008 Modelled water levels in the River Thames	The Scoping Report refers to the EA's 2008 modelled water levels in the River Thames, but this has now been superseded by the Thames Estuary 2100 Extreme Water Levels dataset; the latter should be used to inform the ES assessment.
4.10.8	7.39	Thames Estuary 2100 Plan	The flood defences from which the Proposed Development site benefits are included in the TE2100 plan and are anticipated to be raised in the next 50years. The Applicant should consult with the EA to ensure that the Proposed Development does not

ID	Ref	Other points	Inspectorate's comments
			<p>conflict/compromise ability to deliver future flood risk management in line with this plan such as the 3km revetment replacement envisaged to commence in 2022/23; in particular, the Applicant should consider the height of the Proposed Development infrastructure crossing the flood defences and whether embankment widening may be required on the landward side of the defences.</p>
4.10.9	15.7	FRA H scenario	<p>The Scoping Report acknowledges that extreme flood events (0.1% annual probability) and climate change will be assessed. However, the Inspectorate considers that the H scenario should be used to test whether resilience can be provided to cope with more extreme scenarios accounting for the vulnerability of safety 'critical features' such as storage of petro-chemicals kept on site. Where possible, multiple strands of evidence should be used alongside the H scenario to support the assessment of future extreme events considering the variability future estimates; noting the statement in UKCP18 Marine Report, that substantial additional sea level rise cannot be ruled out.</p>
4.10.10	15.9	Flood defence breach/overtopping worst-case scenario	<p>An assessment of potential residual risk associated with flood defence breach/overtopping will be included in the ES Chapter. To ensure that this assessment is robust, a worst-case scenario should be assessed detailing the depth, hazard and rate of flood onset in an un-warned scenario; this should be carried out in consultation with the EA and should be used to inform appropriate mitigation measures to be implemented and secured through the dDCO.</p>
4.10.11	3.31	Land levelling and earth works	<p>These works have potential to give rise to increased risks elsewhere within the flood cell in which the site is located as a result of proposed changes to the topography. Any such increases to on-site or off-site flood risk should be identified and included in the assessment in the ES. The Applicant should take care to avoid increased off-site flood risk as a result of the Proposed Development</p>

ID	Ref	Other points	Inspectorate's comments
4.10.12		High risk areas and design	As the proposal site is located in Flood Risk zone 3 the FRA should direct development towards areas where the risk is lowest, for example, the design should avoid locating employee buildings and workstations in areas closest to the defences as they are likely to be in a rapid inundation zone.
4.10.13		Permitting	Any works as part of the Proposed Development that are proposed within 8 metres of a main river or 16 metres of the tidal flood defences will require a permit from the EA; the Applicant should seek to acquire these at the earliest opportunity.



## 4.11 Landscape and Visual

(Scoping Report section 16)

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

ID	Ref	Other points	Inspectorate's comments
4.11.2	16.6 to 16.9	Representative Viewpoints and methodology	<p>The Scoping Report states that consultation with Castle Point Borough Council and Essex County Council is yet to be undertaken although viewpoints have already been identified.</p> <p>The Applicant should ensure that the viewpoints and the methodology for assessment are appropriate through consultation with the relevant consultees before carrying out any LVIA assessment. The baseline should be presented visually as well as written in the ES.</p>
4.11.3	16.6	3D Visual Montages and detailed design	The Applicant proposes to undertake the assessment in line with the Third Edition of the 'Guidelines for Landscape and Visual Impact Assessment' (GLVIA3). This should include all structures associated with the Proposed Development, inclusion of aspects of design of the Proposed Development and 3D wire lines and full photomontages to ensure a robust assessment.
4.11.4	16.7 to 16.10 and 16.15	Criteria/matrices for landscape value, visual baseline, visual receptor value criteria	The Scoping Report states a number of times that following a mixture of field and desk-based studies, criteria will be used to determine certain values, baselines and what determines the landscape and visual effects.

ID	Ref	Other points	Inspectorate's comments
			The ES should clearly set out all criteria/matrices used in the assessment, explain how it has been applied and reference its source.
4.11.5	16.7	Night-time character assessment	The Scoping Report indicates that a night-time character assessment will be prepared in co-ordination with the lighting assessment but does not provide any further information as to how these will interact. The ES should cross-reference the Landscape and Visual Chapter and the Lighting Chapter and explain how the lighting and night-time character assessments interact.
4.11.6		Assumptions and limitations	Any assumptions and limitations that have been made throughout the assessment should be clearly explained in the ES.
4.11.7		Data sources	The assessment in the ES should explain how the Essex Green Infrastructure Strategy (2020) and the Landscape Character Assessment of the Essex Coast (2005) have been taken into account.

## 4.12 Lighting

(Scoping Report section 17)

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

ID	Ref	Other points	Inspectorate's comments
4.12.2	17.4	Long distance views and distant locations	<p>The Scoping Report anticipates that since the Proposed Development will be located within an existing facility for which similar infrastructure exists, it will not impact the character of distant locations in terms of lighting.</p> <p>The ES should provide a clear definition of what is considered a 'distant location' and justify why they would not be impacted by lighting from the Proposed Development and should include an assessment of any significant effects where they are likely to occur.</p>
4.12.3	17.41	Impacts to nearby residential receptors	The Scoping Report states that in line with British Standards, the existing light levels of the site would be described as medium to high brightness and the nearby residential receptors have a medium sensitivity. There is no explanation as to how this brightness and sensitivity has been applied in line with the relevant guidance and/or consultation. This should be clearly explained in the ES to ensure that the concluding effect significance has been defined in line with the methodology set out in the relevant Chapter.
4.12.4	17.10	Modelling software	The Scoping Report does not define which software will be used but determines that this will be 'industry standard'. Any modelling used to

ID	Ref	Other points	Inspectorate's comments
			support information in the ES should be explained and effort made to agree the approach with relevant consultation bodies.
4.12.5	17.33	Baseline surveys	The Scoping Report states that baseline lighting surveys will be carried out to inform the baseline conditions. Effort should be made to agree the methodology and the locations of these surveys with relevant consultation bodies.
4.12.6	17.45 to 17.47	Lighting Strategy	The Applicant should ensure that the lighting strategy is appropriately secured, and effort is made to agree the approach with relevant consultation bodies.

## 4.13 Historic Environment

(Scoping Report section 18)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.13.1	18.29	Other listed buildings and scheduled monument within/adjacent to 1km study area	<p>The Scoping Report does not explain why these are not considered to be sensitive to physical change in line with their methodology. Furthermore, it is unclear which receptors are included in this group.</p> <p>The Inspectorate does not agree to scope these receptors out of the assessment. Accordingly, the ES should provide enough evidence to explain, in line with the methodology, why they are scoped out or else include them in the assessment. The ES should detail all the receptors considered within the study area and located them on a Figure in relation to the Proposed Development.</p>
4.13.2	18.31 to 18.33	Impacts from new infrastructure	<p>The Scoping Report omits these impacts in the 'Initial Assessment of Likely Effects' and focusses only on impacts as a result of groundworks associated with site preparation and construction phases. The ES should include a consideration of all impacts of the Proposed Development on Historic receptors where significant effects are likely to occur.</p>
4.13.3	18.32	Impacts from alterations to jetty structures and dredging	<p>The Scoping Report does not identify any impacts and although it does not specifically scope them out, they have not been scoped into the assessment. Impacts could occur as a result of alterations to jetty structures and dredging causing changes in local currents which can in turn affect tidal scouring or deposition, either increasing active erosion or burial by sediments. Similarly, greater propeller wash from increased ship traffic can result in higher rates of foreshore erosion.</p> <p>The ES should identify and assess any potential impacts on historic receptors (where significant effects are likely to occur) within the</p>

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			appropriate study area identified, justified and agreed with the relevant statutory bodies for the assessment.
4.134	Table 18.5	Receptors scoped out of the assessment	<p>The following receptors are scoped out of the assessment in Table 18.5: Grade II Dutch Cottage 6, Grade II listed Dutch Cottage Canvey Road, Roman Salt production scheduled monument and two heavy anti-aircraft gun site scheduled monuments. The reason given for scoping these receptors out of the assessment is '<i>no physical effects and no perceptible change in setting and no resultant impact upon significance</i>'. The Scoping Report does not provide any evidence of how this conclusion has been reached in line with the assessment methodology.</p> <p>The Inspectorate does not agree to scope these matters out. The ES should assess any likely significant effects to these receptors.</p>

ID	Ref	Other points	Inspectorate's comments
4.135	18.23	Previous development assessments	The Scoping Report states that the initial assessment is based on information gathered for a previous development at the Oikos facility. The ES should explain how this information has been used to inform the assessment for the Proposed Development, for example, the study area used, where the information is from (what surveys), to ensure that this information is appropriate and applicable.
4.136	18.27	Historic Environmental Character Zone 95_1 and the Characterisation Report	The Scoping Report states that the Oikos facility is located in this zone yet there is no Figure depicting the extent of this zone and limited detail is provided in terms of what the Characterisation Report reports on.

ID	Ref	Other points	Inspectorate's comments
			The ES should delineate the extent of the Historic Environmental Character Zone ensuring a robust description of the baseline environment within the ES.
4.13.7		Heritage-specific viewpoints	The Scoping Report does not propose to include any heritage-specific viewpoints within the ES assessment. The Inspectorate considers that heritage-specific viewpoints should be included within the ES. The impact on heritage asset settings should also be assessed in terms of noise, light, traffic and landscape assessments.
4.13.8		EIA matrixes	The ES should make use of expert judgement to enable an assessment beyond that which is achieved solely by use of systematic matrices or scoring systems. However, the information used to develop such matrices should be included in the ES. The expert judgement should be provided in the form of non-technical narrative within the Historic Environment chapter.
4.13.9		Dredge depth impact	The Scoping Report explains that the proposed capital dredge will be into post-Pleistocene gravels, sands and mud predominately from the Holocene Epoch, but which are located at depths below the anticipated dredge depth. However, the Scoping Report paragraph 7.77 suggests that gravel could be "...exposed at the base of the dredge." The Inspectorate considers that it is, therefore, possible that Pleistocene deposits could be affected and that this matter cannot be scoped out of the ES.
4.13.10	18.23 to 18.24	Buried archaeological baseline and marine historic environment baseline	<p>The baseline for the buried archaeological environment and the marine historic environment has not been characterised although the Scoping Report identifies sources of information/data that can/will be used.</p> <p>The ES should characterise the buried archaeological and marine historic baseline within the appropriate study area in line with</p>

ID	Ref	Other points	Inspectorate's comments
			<p>relevant guidance and using appropriate sources and/or undertaking appropriate surveys/modelling. Specific attention should be given to commissioning walkover, geophysical or geotechnical surveys, and the design of the proposed capital dredging campaign should be informed by archaeological advice in reference to an adequate determination of risk.</p>
4.13.11	18.35	Preliminary conclusions	<p>The Scoping Report provides a preliminary conclusion that there is low potential for significant effects and therefore no mitigation is necessary. Given that the baseline has not been fully characterised within (see box 4.13.10) and the study area is not justified or clearly delineated (see paragraph 3.3.2) the Inspectorate cannot be content with this preliminary conclusion.</p> <p>The ES must base conclusions on a robust assessment supported by appropriate Figures, guidance, data sources, field surveys, an appropriate study area and methodology and consultation.</p>



## 4.14 Socio-Economics

(Scoping Report section 19)

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

ID	Ref	Other points	Inspectorate's comments
4.14.2	19.10	Baseline	<p>The Scoping Report does not include information on private assets or community resources that might be affected by the Proposed Development. The Inspectorate considers that in addition to the data from demographic and economic surveys, the baseline should include an overview of relevant private and community resources (land and marine based) informed through consultation with CPBC, and health and wellbeing outcomes.</p> <p>The evidence base for the socio-economic impact assessment should include:</p> <ul style="list-style-type: none"> <li>• ASELA (2019) The South Essex Productivity Strategy;</li> <li>• ECC (2020) Essex Prosperity and Productivity Plan;</li> <li>• SQW (2019) South Essex Grow-on Space: A case for intervention;</li> <li>• GVA (2017) South Essex Economic Development Needs Assessment.</li> </ul>
4.14.3	19.27 – 19.32	Impacts to local fishing fleet, tourism and leisure sectors, public services, skills provision and health and wellbeing	The Scoping Report's overview of likely effects is very high level at this stage (e.g. "impacts upon existing economic activity within the study area"). The ES should include consideration of the impact from the Proposed Development on receptors such as local fishing fleet; tourism and leisure sectors; public services (including affordable

ID	Ref	Other points	Inspectorate's comments
			housing and privately rented lower-cost accommodation); skills provision; and health and wellbeing. The socio-economic impact assessment should assess impacts to these receptors where significant effects are likely to occur.

## 4.15 Safety

(Scoping Report section 20)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.15.1	20.32	Vulnerability to disasters - construction	Risks associated with flooding and security/terrorist threats are scoped into the assessment for the operational phase only however, the Inspectorate considers that the existing operation is also vulnerable to such disasters.  The ES should assess vulnerability to disasters in all phases of the Proposed Development.
4.15.2	20.32 – 20.33	Vulnerability to disasters	The National Risk Register of Civil Emergencies (Cabinet Office, 2017) identifies a large range of potential hazards that may affect the UK. Of these examples, the Scoping Report includes security and terrorist threats and flooding (in the operational phase only). No information has been provided to justify scoping out other potential hazards. The ES should therefore assess the effects associated with a broader range of natural hazards, diseases, major accidents, societal risks and malicious attacks, where significant effects are likely to occur.

ID	Ref	Other points	Inspectorate's comments
4.15.3	20.9	Guidance	The Scoping Report references a couple sources of HSE regulatory guidance in Section 20.9, namely 'Reducing risks, protecting people – HSE's decision-making process (2001)' and 'A guide to the Control of Major Accident Hazards Regulations (COMAH) 2015 (Guidance note L111)'. The Report also refers to "general guidance from HSE". The ES should specify precisely which guidance is being followed and

ID	Ref	Other points	Inspectorate's comments
			further reference should be made to guidance in drafting the methodology.
4.15.4	Table 20.2	Policy and legislation	<p>The assessment of effects from major accidents and disasters should also have regard to:</p> <ul style="list-style-type: none"> <li>• The Civil Contingencies Act 2004;</li> <li>• The Major Accident Off-Site Emergency Plan (Management of Waste from Extractive Industries) (England and Wales) Regulations 2009.</li> </ul>
4.15.5	20.32 – 20.33	Impacts	<p>The Scoping Report refers to “potential safety impacts”. The ES should describe the nature of impacts in more detail. The ES should specify which accidents have the potential to result in off-site emissions (e.g. flooding or fires, spills, leaks or releases off-site). This information should support the conclusions regarding magnitude of effects and assessment of significance.</p>
4.15.6	3.15 to 3.20 and Figure 3.1	Detailed design	<p>The detailed design of the Proposed Development is broadly unknown at the Scoping stage. This should be reviewed and decided in consultation with the relevant consultation bodies.</p>

## 4.16 Cumulative and In-Combination Effects

(Scoping Report section 21)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.16.1	Table 21.1	Cumulative developments in Table 21.1	<p>The Scoping Report proposes to scope out development listed in Table 21.1 with the justification that either '<i>the development is small and unlikely to interact with the OMSSD project</i>' or it is considered too far away from the Proposed Development. There is no explanation of how this conclusion was reached and there is no evidence of consultation and/or agreement with statutory bodies.</p> <p>On this basis and at this stage, the Inspectorate cannot agree to scope out these developments from the cumulative assessment in the ES. The ES should include an assessment of the cumulative impacts with this development where significant effects are likely to occur.</p>
4.16.2	21.3	Other NSIPs	<p>The Scoping Report states that there are no NSIPs registered on the PINS website within the study area at the time of writing. Considering that the study area (as explained below) is not robust, at this time, the Inspectorate cannot agree to scope out other NSIPs from the cumulative assessment.</p> <p>The ES should define a study area based on the ZOI and consider which NSIPs in the study area have potential to cause cumulative effects with the Proposed Development. Evidence and consultation should determine whether or not identified NSIPs should be scoped in or out of the assessment.</p>
4.16.3	Table 21.1	TE2100 Revetment replacement and Roscommon Way extension	<p>The Scoping Report omits the anticipated replacement of 3km of revetment to be delivered by the EA, Jacobs and other suppliers in 2022/23 – 2024/25 in their list of other cumulative development and the proposed Roscommon Way extension. These have potential to</p>

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			cause cumulative impacts in aspects such as traffic and transport and should be included in the assessment.

ID	Ref	Other points	Inspectorate's comments
4.16.4	21.20	Tier 3 Developments	AN17 on which the Scoping Chapter is based offers three tiers of development to be considered in the cumulative assessment, yet the Scoping Report only considers Tiers 1 and 2. The ES should explain and justify any deviation in the approach if AN17 is used to inform the assessment.
4.16.5	21.33	Consultation on assessment	The Applicant should make effort to agree the approach with relevant consultation bodies including the short list of other developments to be included in the assessment.
4.16.6	21.21	Stage 2 filtering of developments	The ES should clearly describe the criteria used to determine which projects should be taken forward into stage 2 of the assessment and why other development is excluded. Effort should be made to agree the approach with relevant consultation bodies.
4.16.7	21.21	Establishing the short list of developments	The Scoping Report does not define the temporal scope for the assessment. For clarity, in the ES assessment, the temporal scope used to establish a short list of developments should include the construction and operation of other developments that are both temporally consecutive and overlap with that of the Proposed Development.  Additionally, other factors should be considered such as the capacity of the receiving environment, when establishing a short list of other developments to take forward in the assessment in the ES.

ID	Ref	Other points	Inspectorate's comments
4.16.8	21.25 to 21.28 and Table 21.2	Methodology for In-Combination Assessment	<p>The methodology for the in-combination assessment in the Scoping Report remains vague with no explanation of how the aspect Chapters will be reviewed to take forward potential impacts for assessment, how the potential impacts and receptors were decided in Table 21.2, their ability to interact or how the level of significance will be determined.</p> <p>The ES should clearly set out the methodology for assessing in-combination, or interrelated effects between aspects, based on relevant guidance or professional judgement.</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: Habitat Regulations Assessment relevant to nationally significant infrastructure projects (includes discussion of Evidence Plan process);
  - Advice Note Twelve: Transboundary Impacts;
  - Advice Note Seventeen: Cumulative Effects Assessment; and
  - Advice Note Eighteen: The Water Framework Directive.

5.0.2 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
Natural England	Natural England
The Historic Buildings and Monuments Commission for England	London and the South East
	Historic England
The relevant fire and rescue authority	Essex County Fire and Rescue
The relevant police and crime commissioner	Essex Police and Crime Commissioner
The relevant parish council(s) or, where the application relates to land [in] Wales or Scotland, the relevant community council	Canvey Island Town Council
The Environment Agency	The Environment Agency - Kent, South London and East Sussex
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 - London Coastguard Office
The Marine Management Organisation	Marine Management Organisation (MMO)
The Relevant Highways Authority	Essex County Council
The relevant strategic highways company	Highways England South East

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

<b>SCHEDULE 1 DESCRIPTION</b>	<b>ORGANISATION</b>
Transport for London	Transport for London
The relevant internal drainage board	Lower Medway
	Kent Marshes Medway Council
Public Health England, an executive agency of the Department of Health	Public Health England
The Crown Estate Commissioners	The Crown Estate
The Forestry Commission	South East and London
The Secretary of State for Defence	Ministry of Defence

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

<b>STATUTORY UNDERTAKER</b>	<b>ORGANISATION</b>
The National Health Service Commissioning Board	NHS England
The relevant NHS Trust	East of England Ambulance Service NHS Trust
The relevant NHS Foundation Trust	Basildon and Thurrock University Hospitals NHS Foundation Trust
Railways	Network Rail Infrastructure Ltd
	Highways England Historical Railways Estate
Road Transport	Transport for London
Dock and Harbour authority	Port of London 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

<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
The relevant Environment Agency	The Environment Agency - Kent, South London and East Sussex
The relevant water and sewage undertaker	Anglian Water
	Essex and Suffolk Water
The relevant public gas transporter	Cadent Gas Limited
	Energetics Gas Limited
	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
	Quadrant Pipelines Limited
	Indigo Pipelines Limited
	Murphy Gas Networks limited
	National Grid Gas Plc
	Scotland Gas Networks Plc
Southern Gas Networks Plc	
Gateway Energy Centre Limited	
The relevant electricity generator with CPO Powers	Coryton Energy Company Limited
	Eclipse Power Network Limited
	Energetics Electricity Limited

STATUTORY UNDERTAKER	ORGANISATION
The relevant electricity distributor with CPO Powers	Energy Assets Networks Limited
	ESP Electricity Limited
	Fulcrum Electricity Assets Limited
	Harlaxton Energy Networks Limited
	Independent Power Networks Limited
	The Electricity Network Company Limited
	Leep Electricity Networks Limited
	Murphy Power Distribution Limited
	UK Power Distribution Limited
	Utility Assets Limited
	Vattenfall Networks Limited
	London Power Networks Plc
	South Eastern Power Networks Plc
	UK Power Networks Limited
National Grid Electricity Transmission Plc	

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

LOCAL AUTHORITY <sup>10</sup>
Castle Point Borough Council
Basildon Borough Council
Rochford District Council
Southend-on-Sea Borough Council

<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>
Medway Council
Thurrock Council
Essex County Council
London Borough of Havering
London Borough of Enfield
Waltham Forest Council
London Borough of Redbridge
Cambridgeshire County Council
Hertfordshire County Council
Suffolk County Council

**THE GREATER LONDON AUTHORITY**

<b>ORGANISATION</b>
The Greater London Authority

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

<b>ORGANISATION</b>
Cambridgeshire and Peterborough Combined Authority
Royal National Lifeboat Institution



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

<b>CONSULTATION BODIES WHO REPLIED BY THE STATUTORY DEADLINE:</b>
Anglian Water
Cadent Gas
Canvey Island Town Council
Castle Point Borough Council
The Environment Agency
Essex County Council
The Health and Safety Executive
Highways England
Historic England
Joint Nature Conservation Committee
Medway Council
National Grid
Natural England
Port of London Authority
Public Health England
Royal Mail
Suffolk County Council
Transport for London



**Anglian Water Services Ltd**

Thorpe Wood House  
Thorpe Wood  
Peterborough  
PE3 6WT

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

Ms Emily Park  
EIA Advisor  
The Planning Inspectorate  
Major Casework Directorate  
Temple Quay House  
2 The Square  
Bristol, BS1 6PN

[Sent by e-mail]

7 May 2020

Dear Ms Park,

**Oikos Marine and South Side Development: Environmental Statement 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 Oikos Storage Ltd prior to the submission of the Draft DCO for examination.

It would be helpful if we could 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 assets and the need for mitigation.
- Pre-construction surveys.



### 3 The OMSSD Project

There is an existing surface water sewer on Haven Road which appears to cross existing storage compound 10 as shown on Figure 3.1.

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 is to be refined further by the applicant. Therefore, the extent to which existing sewer(s) would be affected will need to be defined with the assistance of Anglian Water.

It is therefore suggested that the Environmental Statement should include reference to existing sewerage infrastructure managed by Anglian Water.

Maps of Anglian Water's assets are available to view at the following address:

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

Reference is also made to the need for upgraded and additional sewerage infrastructure. It is recommended that the Environmental Statement should include reference to any identified impacts on the foul sewerage network and sewage treatment.

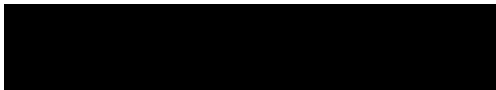
### 15 Flood Risk and Surface Water Drainage Strategy

Reference is made to the preparation of an assessment of all potential sources of flooding including sewer flooding which is welcomed.

Anglian Water is responsible for managing the risks of flooding from surface water, foul water or combined water sewer systems. The risk of sewer flooding and any required mitigation within the public sewerage network should form part of a Flood Risk Assessment/foul drainage strategy.

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

Yours sincerely,



Stewart Patience MRTPI

Spatial Planning Manager



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

**an AWG Company**

Date: 06 May 2020

**Cadent Gas Limited**  
Ashbrook Court, Prologis Park  
Central Boulevard  
Coventry CV7 8PE  
[cadentgas.com](http://cadentgas.com)

Submitted via email to: [OikosPortDevelopment@planninginspectorate.gov.uk](mailto:OikosPortDevelopment@planninginspectorate.gov.uk)



**REF: Oikos Marine and South Side Development**

I refer to your email dated 8<sup>th</sup> April 2020 regarding the above proposed DCO.

In respect of existing Cadent infrastructure, Cadent will require appropriate protection, assurance or relocation of retained apparatus including compliance with relevant standards for works which may be proposed within close proximity of its apparatus.

Cadent has identified the following apparatus within the vicinity of the proposed works:

- Intermediate pressure (above 2 bar) gas pipelines and associated above ground and below ground equipment
- Low or Medium pressure (below 2 bar) gas pipelines and associated above and below ground equipment (as a result it is highly likely that there are also gas services and associated apparatus in the vicinity, these are not shown on plans but their presence should be anticipated and investigated further)
- Above Ground Installations

*Note: No liability of any kind whatsoever is accepted by Cadent Gas Limited or their agents, servants or contractors for any error or omission.*

**Diversions and Protection of Apparatus:**

In order to assess the impact to Cadent's apparatus and network, as a minimum we need to conduct a high level impact assessment and feasibility study of our below 7 bar and above 7 bar network associated with the Oikos Marine and South Side Development DCO Scheme. This work can take upwards of 12 months to undertake depending on the complexity of the scheme and therefore a meeting with the Promoter to discuss the scope and requirements is recommended at the earliest opportunity.

**Cadent will provide (not limited to):**

- **Drawings showing asset locations and an high level view whether the asset would be a 'Divert, Protect or Abandon'**
- **An impact assessment based on information provided by the Promoter (including Shapefiles and Design information as requested/agreed)**
- **Asset information of impacted assets, including size, material and any high level outage windows**
- **An indication of the cost of the project (desktop exercise only) and where applicable any major foreseen difficulties**

**Land & Consents Requirements**

**Where diversions of apparatus are required to facilitate the scheme, Cadent will require the Promoter to obtain all necessary land, planning permissions and other consents to enable the diversion works to be**



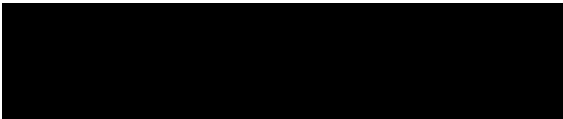
carried out. Details of these consents should be agreed in writing with Cadent before any applications are made to ensure that they are sufficient to deliver works within the proposed timescales. Cadent would ordinarily require a minimum of Conceptual Design study to have been carried out to establish appropriate diversion routes, land and consents requirements ahead of any application being made.

The Promoter will be responsible for obtaining at their cost and granting to Cadent the necessary land rights, on Cadent's standard terms, to allow the construction, maintenance, protection and access of the diverted apparatus. As such adequate land rights must be granted to Cadent (e.g. following the exercise of compulsory powers to acquire such rights included within the DCO) to enable works to proceed, to Cadent's satisfaction. Cadent's approval to the land rights powers included in the DCO prior to submission is strongly recommended to avoid later substantive objection to the DCO. Land rights will be required to be obtained prior to construction and commissioning of any diverted apparatus, to avoid any delays to the project's timescales. A diversion agreement may be required addressing responsibility for works, timescales, expenses and indemnity.

**Protection/Protective Provisions:**

Where the Promoter intends to acquire land, extinguish rights, or interfere with any of Cadent's apparatus, Cadent will require appropriate protection for retained apparatus and further discussion on the impact to its apparatus and rights including adequate Protective Provisions. Operations within Cadent's existing easement strips are not permitted without approval and any proposals for work in the vicinity for Cadent's existing apparatus will require approval by Plant Protection under the Protective Provisions. Early discussions are advised.

Yours Faithfully



**Tom Bowling**  
**Senior Land Officer/Consents Officer**  
Tom.bowling@cadentgas.com





## PLANT PROTECTION – KEY CONSIDERATIONS

- Any works relating to the Oikos Marine and South Side Development Project that may have an impact on the Cadent Gas Network MUST be submitted to the Plant Protection team at Hinckley ([plantprotection@cadentgas.com](mailto:plantprotection@cadentgas.com)). Details can be found here <https://cadentgas.com/Digging-safely/Work-safely-library>, offering an on-line request, or details to contact Hinckley direct by email, post or telephone. This includes all prior Ground Investigation, pre-enabling works such as Archaeological excavations, and temporary and permanent crossings of buried pipelines. Oikos Marine and South Side Development project should be aware that even though intrusive ground works may not impact on the Cadent Gas Network crossing of buried assets to these works may need to be assessed
- Written permission is required before any works commence within a Cadent easement strip and a Deed of Consent may be required if any apparatus needs to cross the Cadent easement strip
- The below guidance is not exhaustive and all works in the vicinity of Cadent's asset shall be subject to review and approval from Cadent's plant protection team in advance of commencement of works on site.

### General Notes on Pipeline Safety:

- You should be aware of the Health and Safety Executives guidance document HS(G) 47 "Avoiding Danger from Underground Services", and Cadent's specification for Safe Working in the Vicinity of Cadent High Pressure gas pipelines and associated installations - requirements for third parties GD/SP/SSW22. Digsafe leaflet Excavating Safely - Avoiding injury when working near gas pipes. There will be additional requirements dictated by Cadent's plant protection team.
- Cadent will also need to ensure that all pipelines remain accessible throughout and after completion of the works
- The actual depth and position must be confirmed on site by trial hole investigation under the supervision of a Cadent representative. Ground cover above our pipelines should not be reduced or increased.
- If any excavations are planned within 3 metres of Cadent High Pressure Pipeline or, within 10 metres of an AGI (Above Ground Installation), or if any embankment or dredging works are proposed then the actual position and depth of the pipeline must be established on site in the presence of a Cadent representative. A safe working method agreed prior to any work taking place in order to minimise the risk of damage and ensure the final depth of cover does not affect the integrity of the pipeline.
- Below are some examples of work types that have specific restrictions when being undertaken in the vicinity of gas assets therefore consultation with Cadent's Plant Protection team is essential:
  - Demolition
  - Blasting
  - Piling and boring
  - Deep mining
  - Surface mineral extraction
  - Landfilling
  - Trenchless Techniques (e.g. HDD, pipe splitting, tunnelling etc.)
  - Wind turbine installation
  - Solar farm installation
  - Tree planting schemes

### Pipeline Crossings:

- Where existing roads cannot be used, construction traffic should ONLY cross the pipeline at agreed locations.



- The pipeline shall be protected, at the crossing points, by temporary rafts constructed at ground level. The third party shall review ground conditions, vehicle types and crossing frequencies to determine the type and construction of the raft required.
- The type of raft shall be agreed with Cadent prior to installation.
- No protective measures including the installation of concrete slab protection shall be installed over or near to the Cadent pipeline without the prior permission of Cadent.
- Cadent will need to agree the material, the dimensions and method of installation of the proposed protective measure.
- The method of installation shall be confirmed through the submission of a formal written method statement from the contractor to Cadent.
- A Cadent representative shall monitor any works within close proximity to the pipeline.

#### New Service Crossing:

- New services may cross the pipeline at perpendicular angle to the pipeline i.e. 90 degrees.
- Where a new service is to cross over the pipeline a clearance distance of 0.6 metres between the crown of the pipeline and underside of the service should be maintained. If this cannot be achieved the service shall cross below the pipeline with a clearance distance of 0.6 metres.
- A new service should not be laid parallel within an easement strip
- A Cadent representative shall approve and supervise any new service crossing of a pipeline.
- An exposed pipeline should be suitable supported and removed prior to backfilling
- An exposed pipeline should be protected by matting and suitable timber cladding
- For pipe construction involving deep excavation (<1.5m) in the vicinity of grey iron mains, the model consultative procedure will apply therefore an integrity assessment must be conducted to confirm if diversion is required



## **Guidance**

To download a copy of the HSE Guidance HS(G)47, please use the following link:

<http://www.hse.gov.uk/pubns/books/hsg47.htm>

Dial Before You Dig Pipelines Guidance:

<https://cadentgas.com/Digging-safely/Dial-before-you-dig>

Essential Guidance document:

[https://cadentgas.com/getattachment/digging-safely/Promo-work-safely-library/Essential\\_Guidance.pdf](https://cadentgas.com/getattachment/digging-safely/Promo-work-safely-library/Essential_Guidance.pdf)

Excavating Safely in the vicinity of gas pipes guidance (Credit card):

[https://cadentgas.com/getattachment/digging-safely/Promo-work-safely-library/Excavating\\_Safely\\_Leaflet\\_Gas-1.pdf](https://cadentgas.com/getattachment/digging-safely/Promo-work-safely-library/Excavating_Safely_Leaflet_Gas-1.pdf)

Copies of all the Guidance Documents can also be downloaded from the Cadent website:

<https://cadentgas.com/Digging-safely/Work-safely-library>



Planning Committee – 5<sup>th</sup> May 2020 – Oikos

Application by Oikos Storage Limited for the Order granting Development Consent for the Oikos Marine and South Side Development.

Oikos Environmental Statement - Ref TR030004-000005.

5<sup>th</sup> May 2020

Canvey Island Town Council comments:

- Concerns regarding the disturbance of wildlife and bird life in the Thames in and around the site while work is carried out.
- Additional shipping and bigger ships causing more pollution and damage to the shore line from the wash.
- Possibility of oil pollution during loading or unloading of oil.
- Holehaven is a site of European Interest for the Protection of Wading Birds which is very close to where this work is to be carried out.
- On the completion of the work there will be an increase in road tankers on local roads which are already overcrowded. The additional traffic and weight of these tankers will have an adverse effect on road surfaces.
- Concerns have also been raised about the amount of noise caused whilst work is underway.

6<sup>th</sup> May 2020.

Dear Ms Park

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

**Application by Oikos Storage Limited (the Applicant) for an Order granting Development Consent for the Oikos Marine and South Side Development (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 refer to the above consultation and would advise that following consideration of the submitted document 'Environmental Statement – Scoping Report 2020 (Planning Inspectorate reference TR030004), I would advise that this Authority considers the proposal for alterations and additions to the Oikos Storage Ltd facility on Haven Road, Canvey Island, as described in the submitted Report, to be a Schedule 1 Development as defined under the Infrastructure Planning (Environment Impact Assessment) Regulations 2017 (as amended) and notes the applicant's intention to submit an Environmental Statement to support a future application for a Development Consent Order.

The Authority acknowledges that in order to determine the appropriate scope of such an Environmental Statement, the applicant is entitled to seek a scoping opinion from the Secretary of State.

The Authority acknowledges and welcomes consultation by the Planning Inspectorate on behalf of the Secretary of State, on the submitted Environmental Statement Scoping Report.

The submitted Scoping Report seeks to identify areas potentially sensitive to the impacts of the proposed development, the level of detail to which such impacts will be examined and potential appropriate mitigation of such impacts.

This Authority is required to consider the submitted Report and, where necessary, identify areas where further examination of impact is required in order to facilitate the submission of a comprehensive and robust Environmental Statement to accompany the application for a Development Consent Order to the Secretary of State.

The Local Planning Authority has considered the submitted Report and notes that it contains a Plan sufficient to identify the land the subject of the proposed application,



together with an appropriate detailed description of the physical characteristics of the proposed development and its location.

A range of socio-economic, natural and physical features considered likely to be affected by the proposed development, are identified in Chapters 6 – 20 of the submitted Report together with associated initial assessments of likely effects and mitigation measures.

The Report also indicates consideration of the significance of residual effects in respect of each sensitive feature under consideration within the proposed Environmental Statement.

Consideration is also given to the cumulative impacts of the proposed development when considered in the context of other developments.

The detail within the Report is limited at this stage with the assessment of likely effects and mitigation being at only initial stages however, this Authority considers the range of areas identified for detailed consideration within the Environmental Statement to be generally appropriate.

The Authority would however draw attention to the following matters:

- (i) It is not considered that the impact of the proposed development on the local fishing fleet has been adequately considered or expressed. This group should be consulted.
- (ii) It should be noted that paragraph 5.23 identifies the site as being 'located partly within the borough of Castle Point'. It should be noted that the site is located entirely within the borough of Castle Point.

This Authority looks forward to offering more detailed comments when the Environmental Statement is submitted.

Yours sincerely

A solid black rectangular box used to redact the signature of the Strategic Developments Officer.

K. P. Fisher-Bright  
Strategic Developments Officer



Ms. Emily Park  
Infrastructure Planning Commission  
Alison Down  
Temple Quay House (2 The Square)  
Temple Quay  
Bristol  
Avon  
BS1 6PN

**Our ref:** AE/2020/125064/01-L01  
**Your ref:** TR030004-000005  
**Date:** 04 May 2020

Dear Ms Park

**APPLICATION BY OIKOS STORAGE LIMITED (THE APPLICANT) FOR AN ORDER GRANTING DEVELOPMENT CONSENT FOR THE OIKOS MARINE AND SOUTH SIDE DEVELOPMENT (THE PROPOSED DEVELOPMENT)**

**SCOPING CONSULTATION - OIKOS SOUTH MARINE AND SOUTH SIDE DEVELOPMENT, OIKOS LIMITED, CANVEY ISLAND**

Thank you for the opportunity to comment on the scoping report for the Oikos Marine and South Side Development. We have considered the submitted report, entitled Environment Statement – Scoping Report, April 2020, reference TR030004. We have made comments in relation to Flood Risk, The Thames Estuary 2100 plan, Water Quality, Pollution Prevention, Ecology and the control of major accident Hazards Regulations 2015.

**Flood Risk**

The site falls within flood zone 3 according to our flood maps. There is a main river which runs along the western boundary of the site, known as 'Sluice Farm Dyke'. The site currently benefits from flood defences which protect the site from tidal flooding from the River Thames. Whilst the site is defended, there remains the risk that flooding could occur as a result of defence failure and/or overtopping. This risk, and mitigation measures to address the risk must be considered as part of the Flood Risk Assessment (FRA) which will support this application.

The flood defences, in the form of a concrete sea wall, embankment and seaward revetment lie along the southern boundary of the site and continue offsite around the periphery of Canvey Island. The continued structural integrity of these defences is vital for the protection of the site and for the surrounding community.

Flood defences will have to be raised higher in the next 50 years to maintain the existing standard of flood protection to Canvey as part of the Thames Estuary 2100 (TE2100) Plan. The applicant is therefore advised to liaise closely with our TE2100 team to ensure that land safeguarding provisions are identified to ensure that the proposed development does not conflict with or compromise the ability to deliver future flood risk management infrastructure that will benefit the site and the surrounding community. In addition the fuel conveyance infrastructure crossing the flood defence line from the jetties to storage facilities should be set at an appropriate height and lateral distance that recognises the future flood defence level/height and width. We have included more detail in the TE2100 section of this letter.

### **Flood risk and climate change**

Paragraph 5.2.4 of the National Policy Statement for Ports, confirms that:-

‘All applications for port development ...located in Flood Zones 2 and 3 in England ...should be accompanied by a flood risk assessment (FRA)... This should identify and assess the risks of all forms of flooding to and from the project and demonstrate how these flood risks will be managed, taking climate change into account’

This is echoed within section 15.4 of the Environmental statement scoping report, which confirms in the third bullet point that the FRA will ‘take the impacts of climate change into account, clearly stating the development lifetime over which the assessment has been made’. We support the proposal in para 15.3 to produce a Flood Risk Assessment as a standalone document forming an appendix to the Environmental Statement and providing the source information for the flood risk and surface water drainage chapter of the Environment Statement.

We would advise that the “flood risk and coastal change” section of the National Planning Policy Framework’s Planning Practice Guidance is a suitable replacement to the now superseded PPS25 Practice Guide which is referred to the National Policy Statement for Ports (NPSfP) and in para 15.5 of the Scoping Document.

The National Policy Statement for Ports (NPSfP) is clear that climate change must be taken in to account for the lifetime of the development. Paragraph 5.3.5 of the NPSfPs states that climate change should be taken in to account ‘during the project’s operational life and any decommissioning period’.

Section 4.13.7 of the NPSfP confirms that ‘Applicants should use the latest set of UK Climate Projections’. This is currently the UKCP18 scenarios. The section goes on to confirm that ‘Applicants should apply, as a minimum, the emissions scenario that the independent Committee on Climate Change suggests the world is currently most closely following – and the 10%, 50% and 90% estimate ranges. These results should be considered alongside relevant research which is based on the climate change projections such as Environment Agency (EA) Flood Maps’.

Paragraph 4.13.8 of the same states ‘In addition, where port infrastructure has safety-critical elements (e.g. storage of gas, petro-chemicals) the applicant should

apply the high emissions scenario (high impact, low likelihood) to those elements critical to the safe operation of the port infrastructure’.

We would expect these scenarios to be considered as a minimum within the FRA for both the design (0.5% annual probability event) and the extreme 0.1% annual probability event). Paragraph 15.7 confirms that the FRA will consider extreme flood events up to the 0.1% and the potential effects of climate change and we welcome this assessment. The FRA should also evaluate the site’s sensitivity to a more extreme scenario (especially for safety critical features such as the storage of gas or petro-chemicals).

Paragraph 4.13.11 of the NPSfP states- “The decision-maker should satisfy itself that there are not critical features of the design of new ports infrastructure which may be seriously affected by more radical changes to the climate beyond that projected in the latest set of UK Climate Projections, taking account of the latest credible scientific evidence on, for example, sea level rise (e.g. by referring to additional maximum credible scenarios from the Intergovernmental Panel on Climate Change or EA) and that necessary action can be taken to ensure the operation of the infrastructure over its estimated lifetime”. To enable the planning inspector (decision-maker) to be able to make a judgement with regard to the impact on critical features, such as the storage of gas, petro-chemicals (which are deemed to be safety critical), the H scenario should be used to test whether resilience can be designed in to cope with any vulnerability to more extreme scenarios. Without the H assessment to understand the potential flooding impacts of greater sea level rise, the Inspector may be unable to make a judgement with regard to impact on the critical features of this application.

The UKCP18 factsheet on sea level rise and storm surge advises that “the estimate for low probability, high impact range for sea level rise around the UK to 2100 (H scenario from UKCP09, see Lowe et al, 2009) is still a reasonable plausible high end scenario based upon our current interpretation of the evidence. We recommend that you make use of multiple strands of evidence, including H scenarios when assessing vulnerabilities to future extreme events”.

The summary to the UKCP18 Marine Report (Met Office Hadley Centre, Nov 2018) states that “In particular, we cannot rule out substantial additional sea level rise associated primarily with dynamic ice discharge from the West Atlantic Ice Sheet. We recommend that decision makers make use of the projections presented in the report alongside multiple strands of evidence, including H scenarios, when assessing vulnerabilities to future extreme water events”.

The gov.uk webpage for “Flood risk assessments: climate change allowances” states “High allowances only apply in assessments for developments that are very sensitive to flood risk, and with lifetimes beyond the end of the century. For example, infrastructure projects or developments that significantly change existing settlement patterns”. The High allowances are in the Environment Agency published guidance titled “Adapting to climate change: guidance for risk management authorities”.

Sections 4.13.9-4.13.14 of the NPSfP provide detail on climate change and what must be considered as part of the application. We would expect this to be discussed

within any FRA submission, together with consideration of any adaptation measures which may be considered necessary (paragraph 4.13.14). The environmental statement confirms that climate change shall be considered for the duration of the development, lifetime, but does not explicitly confirm what this lifetime is considered to be. This should be covered in future correspondence, and climate change must be considered for this development lifetime as a minimum.

It should be noted that 'essential infrastructure' is expected to 'remain operational in times of flood' under Table 3 of the Planning Practice Guidance: Flood Risk and Coastal change, and paragraph 5.2.27 of the NPSfP. This will need to be discussed in details within the FRA, and consideration will need to be forgiven as to whether existing flood defence infrastructure requires improvement should the need arise during the sites operation.

Paragraph 15.8 of the ES scoping report states that a desk-based assessment will be undertaken to ascertain the potential adverse and beneficial effects of flood risk management infrastructure. This should include the future defence improvements envisaged by the Thames Estuary 2100 (TE2100) Plan. It should consider any land safeguarding issues that may be required to support a heightened and widened flood defence structure on the southern boundary of the application site as well as any implications of import/export pipelines on the future height of the sea wall/flood defence or an elevated footpath on the associated embankment (should this also need to be raised). We note that in part, the requirement for working harmoniously with the TE2100 future sea wall raising objectives is identified in paragraphs 15.26 and 15.35 of the ES Scoping document, but the assessment should also consider whether embankment widening may also be required on the landward side of the defence. Further details are included in the TE2100 plan requirements later in this response.

Paragraph 15.9 confirms that the FRA will consider 'an assessment of the potential 'residual' risk associated with a flood defence breach or overtopping scenario', and we welcome this. When considering residual risk for the design and extreme flood events, you should provide an assessment of the risk to the site for and 'un-warned' breach in the defences. For example, details of the risk of flooding (depth, hazard, rate of onset of flooding) during an un-warned scenario (e.g. no flood alert or flood warning has been issued) would provide an indication of the worst case scenario whereby no prior warning has been issued (for example a flood warning has not been issued as the flood warning tidal level threshold has not been reached, but a tanker has caused a weakness/breach in the defences resulting in flooding). This information would be invaluable for informing the flood risk management plan for the site and for helping emergency planners consider the suitability of such a plan. We would suggest that the breach be carried out for a tide with a peak level equivalent to the current issuing threshold for a flood warning (we can provide the relevant level in mAODN or return period/AEP for the flood warning threshold on request).

We would recommend that Paras 15.13 and 15.14 also identifies the need for the applicant to consider the potential for the OMSSD project to conflict with the objectives for future flood defence raising along the southern boundary of the site (TE2100 Plan) and the significance of this, and the ability to avoid or mitigate any identified adverse effects. Our TE2100 and TEAM2100 advisors should be able to

assist you in describing the nature of flood defence infrastructure improvements that are likely to be required along this frontage.

The report refers to the Castle Point Borough Council Level 1 Strategic Flood Risk Assessment (paragraphs 15.24) which was prepared in 2010. We note that it also references the more recent version (dated 2018) in paragraph 15.16. It is the most recent version that should be referred to within the FRA.

If the proposals involve the raising of any land within the site, whether this is to provide a raised platform for buildings, or to raise the access roads in to the site, this will need to be documented within the FRA. Whilst we do not normally require compensatory storage to be provided in tidal defended areas, it is imperative that any increased risks within the flood cell are considered as part of the application. For example, a raised access road in to the site may provide a dry route in and out during a flood event, but may also result in increased flood characteristics to other areas of the site, or off-site. It is important any such risk are identified for emergency planning purposes, and also important that it can be demonstrated that off-site flood risk will not be increased as a result of the development as required by the Planning Policy Guidance on flood risk.

## **General planning advice – Flood Risk**

### Sequential approach on site

If the site contains a range of Flood Zones, the sequential approach should be applied within the site to direct development to the areas of lowest flood risk. As the whole site is covered by Flood Zone 3, your FRA should assess the flood characteristics across the site and direct development towards those areas where the risk is lowest. Areas closest to defences are likely to be within a 'rapid inundation zone' and therefore any buildings required for people to be working within should be directed away from these higher risk areas.

### Data Available

Our Customers and Engagement team can provide any relevant flooding information that we have available. Please be aware that there may be a charge for this information. Please contact: [Enquiries\\_EastAnglia@environment-agency.gov.uk](mailto:Enquiries_EastAnglia@environment-agency.gov.uk). For further information on our flood map products please visit our website at: [www.environment-agency.gov.uk/research/planning/93498.aspx](http://www.environment-agency.gov.uk/research/planning/93498.aspx)

### Finished Floor Levels

The development as proposed would be subject to floodwater entering buildings in a 0.5% (1 in 200) annual probability event with climate change. We recommend that finished floor levels for the proposed development are set 300 millimetres above the 0.5% (1 in 200) annual probability with climate change flood level. Or, if the FRA can demonstrate that this is not practical, then it may be acceptable if flood resilience/resistance measures are incorporated up to the 0.5% (1 in 200) annual probability event level with climate change, providing that flood warnings are

available, temporary disruption is acceptable and the local council are satisfied that it will protect the proposed development and its users from flooding. Safe areas of refuge should be provided in buildings at levels greater than the 0.1% (1 in 1000) annual probability with climate change flood level.

### Flood Resilient/Resistant Construction

We recommend that consideration is given to the use of flood proofing measures to reduce the impact of flooding when it occurs. To minimise the disruption and cost implications of a flood event we encourage development to incorporate flood resilience/resistance measures up to the extreme 1 in 1000 year climate change flood level. Both flood resilience and resistance measures can be used for flood proofing. Flood resilient buildings are designed to reduce the consequences of flooding and speed up recovery from the effects of flooding; flood resistant construction can help prevent or minimise the amount of water entering a building. Information on preparing property for flooding can be found in the documents 'Improving the flood performance of new buildings' and 'Prepare your property for flooding' (<https://www.gov.uk/government/publications/flood-resilient-construction-of-new-buildings> and <http://www.environment-agency.gov.uk/homeandleisure/floods/31644.aspx>).

### Safety of Building

Buildings and associated development should be designed to be structurally resilient to the pressures and forces (hydrostatic and hydrodynamic pressures) associated with flood water. We advise that supporting information and calculations are submitted to you to provide certainty that the buildings will be constructed to withstand these water pressures. Breach and overtopping modelling should help to inform understanding of these hazards.

### Safe Access

During a flood, the journey to safe, dry areas completely outside the 0.5% (1 in 200) annual probability event with climate change floodplain would involve crossing areas of potentially fast flowing water. Those venturing out on foot in areas where flooding exceeds 100 millimetres or so would be at risk from a wide range of hazards, including for example unmarked drops, or access chambers where the cover has been swept away.

Paragraph 039 of the Planning Practice Guidance on Flood Risk and Coastal Change advises that access considerations should consider the voluntary and free movement of people during a design flood (0.5% AEP climate change) as well as the potential for evacuation before a more extreme flood and should be designed to be functional for changing circumstances over the lifetime of the development. Safe access and egress routes should be assessed in accordance with the guidance document [Defra/EA Technical Report FD2320: Flood Risk Assessment Guidance for New Development](#)

## Emergency Flood Plan

Where safe access cannot be achieved, or if the development would be at residual risk of flooding in a breach, an emergency flood plan that deals with matters of evacuation and refuge should demonstrate that people will not be exposed to flood hazards. The emergency flood plan should be submitted as part of the FRA and will need to be agreed with the Local Council.

The local council will assess the adequacy of the evacuation arrangements, including the safety of the route of access/egress from the site in a flood event or information in relation to signage, underwater hazards or any other particular requirements. Their emergency planners will be consulted as they make this assessment.

Guidance is given in Paragraph's 040 and 057 of the Planning Practice Guidance on Flood Risk and Coastal Change and in the ADEPT/EA publication "Flood Risk Emergency Plans for New Development"

## **Flood risk activity permit**

Any works within 8 metres of the Sluice Farm Dyke, a main river, may require a flood risk activity permit from us. In addition to this, any works within 16 metres of the tidal defences (including any structural tie rods and ground anchors) may also require a flood risk activity permit. Any proposals which may require a permit should be discussed at an early stage to ensure that the proposals are acceptable, and to avoid changes being required at a later date, which may result in delays to the application. Site investigations, remediation activities, ground levelling and the construction of structures within the distances from tidal defences and the main river watercourse referred to above are likely to be subject to permitting requirements. The proposed off-site mitigation area may also be peripheral to the Westness Dyke Main River watercourse and therefore activities within 8m of it may require a flood risk permit. Further information on the requirement of flood risk activity permits can be found at <https://www.gov.uk/guidance/flood-risk-activities-environmental-permits>

Where a project requires an Environmental Permit or other Consent that we issue, the National Policy Statements (NPSs) encourage the promoter to contact us before they make an application to the IPC, so that we may resolve any queries as part of the permit application process. You should confirm to us whether it is intended to include details of permits required as part of the DCO application so that these can be considered in more detail at the pre-applications stage. We will welcome further discussion on permitting matters with the relevant teams.

## **Thames Estuary Plan 2100**

We are pleased to see that the Thames Estuary 2100 Plan (TE 2100) and its aspirations are identified within paragraph 7.39 of the ES Scoping Report.

Plan information can be obtained from the weblinks below:-



TE2100 Plan & Programme Key Info:-

<https://www.gov.uk/government/publications/thames-estuary-2100-te2100/thames-estuary-2100-te2100>

TE2100 Plan Document (See pages 185 to 208 for Action Zone 7 and particularly Recommendations 2, 3, 6 and 7):-

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/322061/LIT7540\\_43858f.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/322061/LIT7540_43858f.pdf)

It would be advantageous if the applicant can confirm the proposed development's design lifetime as this does not appear to be explicitly stated within the document. This confirmation can be / needs to be made in future documentation such as the Flood Risk Assessment, as for the time-being we are assuming a 100-year design life, regarding the following comments, given the nature of the development. With regards to Chapter 7 Water Environment -Extreme Water Levels, it is noted in paragraph 7.58 that the following reference is made "...Environment Agency 2008 modelled water levels in the River Thames..." This dataset has now been replaced by the Thames Estuary 2100 Extreme Water Levels dataset and should be requested during the conversations referred to in paragraph 15.15.

We further welcome the consideration of the TE2100 Plan in paragraph 15.26, with regards to the aspirations for future management of the tidal defences fronting the applicant's site. It should be noted that the TE2100 Plan's recommended flood risk management policy for Canvey Island policy unit is policy P4, to take further action to keep up with climate and land use change so that flood risk does not increase. In order to deliver such aspirations regarding defence crest level raising outlined in paragraph 15.26, there will need to be sufficient space incorporated within the proposed development's site layout to accommodate the necessary wall raising (and thus widening) works required. Such works are currently estimated to require an approximate 600mm raise and be completed by 2070. Based upon the "New compounds / tanks / supporting infrastructure" shown along the southern extent of the site in Figure 3.1 it is not apparent that such considerations have been made to-date. This consideration will also ensure the application is in line with Local Policy CC2 Tidal Flood Risk Management Area "Land adjacent to the existing flood defences on Canvey Island, as shown on the Policies Map, is safeguarded for future flood defence works and landscaping. Only temporary development will be permitted on this land" - New Castle Point Local Plan, Pre-submission Plan, 2018-2033 December 2019 (<https://www.castlepoint.gov.uk/pre-submission-local-plan> )

Whilst it is acknowledged there is currently limited space along this frontage, the proposed application offers and opportunity for a collaborative discussion as to how to ensure betterment for a purpose that benefits not only the applicant but as "a long established part of the economy and environment of Canvey Island" (paragraph 1.2). We again welcome the consideration of the TE2100 Plan within paragraphs 15.32 & 15.35 and future defence crest level raising aspirations. The TE2100 Plan is an aspirational document, rather than a definitive policy, so whether the defences are raised in the future will be dependent on cost benefit analysis as well as eligibility and availability of central government Grant in Aid to deliver the required works.

In the short term, our Thames Estuary Asset Management (TEAM) 2100 programme is delivering the first 10 years of capital maintenance works from 2015 recommended

by the TE2100 Plan. The TEAM2100 programme pioneers a new asset management approach to ensure that the 300km of tidal walls, embankments and barriers along the Thames Estuary continue to protect 1.3 million people and £275 billion of property. The programme is being delivered jointly by ourselves, Jacobs and Balfour Beattie, along with other suppliers. The programme is the UK's largest single flood risk programme of works, worth over £300m, and one of the government's top 40 major infrastructure projects. As part of the TEAM2100 Programme we are currently developing a design to replace approximately 3km of revetment along the Canvey southern amenity frontage. This work is currently envisaged to commence on-site within 2022/23 and is anticipated to span into 2024/25. These works provide benefit to the applicant's site as any breach of the defence along this frontage has a direct impact with regards tidal flood waters upon the applicant's site.

We are looking to work in partnership with beneficiaries throughout the Thames Estuary, to explore potential contribution options. Therefore, we would welcome a further strategic conversation with the applicant to explore how we can work in partnership to identify a proportionate contribution towards delivering the TEAM2100 Programme and longer-term TE2100 Plan defence crest level raising aspirations. Such a contribution to these Flood Risk Management works means investing in flood defences which will protect the applicant's site & infrastructure as well as key transport infrastructure over the design life of the development.

The definition of the tidal defence should be redefined to include the entire embankment as well as the concrete upstand wall on its crest. No further loading to the tidal defence will be acceptable.

### Traffic and Transport

With regards Chapter 10 Traffic and Transport, it would be advantageous to have further conversation regarding this proposal and the revetment replacement work mentioned above. This is in relation to collaborative construction phase planning and traffic management on common access routes such as the A130 Canvey Way and Canvey Road from the Waterside roundabout. The aim of this dialogue is to minimise impact upon the Island's road network, assuming the two projects overlap in their respective construction phases, given none of the revetment replacement plant or material access is currently proposed to be marine-based.

### Water Quality

We are pleased that the applicant will be providing A Water Framework Directive (WFD) assessment for the proposed works, which may form part of the DCO in this instance, but which would ordinarily require a marine licence. The capital dredge will need to comply with the WFD. Any subsequent maintenance dredging, should it become necessary to maintain depths, will also require an assessment to demonstrate compliance.

### Dredge method

Since the scoping report states that no decision has yet been made on the dredge method, we will expect that the WFD assessment will only be prepared when a decision has been made. Without formal sediment chemistry analysis and

knowledge of the dredge methods it is impossible to realistically assess WFD impact on water quality. We do note that para 7.74 appears to imply maintenance dredging will be by Water Injection Dredge (WID) methods, as it claims “As this dredging is undertaken by WID there could be an increased sediment supply through the proposed berth area”.

In the case of dispersive methods, which would include Water Injection Dredge methods (WID) the material never leaves the waterbody but may be mobilised by the dredging process and some or all will enter the water column elevating suspended solids loads locally as a plume, and transferring contaminant loads from bed to water column (usually temporarily- but possibly lasting for weeks). How long the contaminants remain in the water column will depend on the chemicals’ specific properties, their solubility in water, their partitioning characteristics between aqueous and organic solvents, and various other physico-chemical properties that may affect whether they associate to fine suspended particulate material or not.

Whilst the scoping report document suggests that the material to be dredged will be predominantly sands of approximately 350 microns diameter, with possibly some coarser material, we anticipate there will be a significant finer fraction which may potentially contain high levels of organic contamination considering the long history of loading and unloading of fuels at this location. The choice of dredge methods should be dictated not simply by the feasibility of the method to move the sediment type but also by the level of risk to water quality the material poses if dispersed in-situ in the Thames Lower waterbody.

### Water Framework Directive

Chemical analyses of statutory samples collected to support the dredge licensing process is a normal part of licensing and is used to inform WFD assessments. We expect to receive a WFD assessment from the applicant prior to giving advice about WFD compliance of the activity to regulators and prior to the agreement of a DCO.

Dredging on the ebbtide alone may limit upriver migration of a sediment plume (containing additional suspended solids and probably elevated contaminant load), and avoid deposition in upstream working berths such as those at London Gateway Port, itself a piece of nationally important infrastructure for the container freight industry.

By the time this development reaches the WFD assessment stage, it is possible, that the applicants will be required to comply with the short term water quality standards: the EQS Maximum Allowable Concentration (EQS MAC), in addition to the currently enforced EQS Annual Average concentration (EQS AA). The next River Basin Management Plan Cycle will coincide with the new 2021 WFD classification. It seems likely that any new policy on adhering to the EQS MAC standards would be expedient to introduce as we enter a new River Basin Management Plan cycle. We have just established the most recent chemical water quality baselines.

If this application is not decided prior to introduction of a policy on EQS MAC compliance, then the applicant will have the additional requirement of demonstration that the short term effects of the dredge plume do not result in exceedance of the

EQS MAC for regulated chemicals under WFD. We anticipate, based on more recent monitoring results, that levels of some polycyclic aromatic hydrocarbons (PAH's) that are currently classified as Priority Hazardous Substances under WFD, will classify as "failing" (they will exceed the permitted baseline) in the next RBMP classification.

### Disposal of Dredging Material

As indicated Para 7.4 claims that as the dredge method has not been decided but then proceeds with this scoping "assuming "marine disposal" will be taking place" and therefore this is an example of the "worst case scenario". It is unclear how the report defines "marine disposal" and whether this implies the works would ordinarily require a marine disposal licence (i.e. the material is intended to be disposed at a licenced marine disposal site), or whether this is include in the definition of "disposal" material which is dispersed (for example by WID methods) by the dredge method itself and therefore does not require removal and transport to a "disposal site".

The conventional understanding of "disposal" is off-site disposal, usually for the Thames estuary this is at "offshore" marine disposal sites outside the estuary such as Southfalls or on occasion it is to smaller on-shore facilities within the estuary. On shore disposal would need to ensure that the material meets the site's waste acceptance criteria; clean material may be used for beneficial re-use, contaminated material may require containment and specialised handling at hazardous waste sites. Where disposal is at an offshore marine licenced disposal site then the MMO use CEFAS guidance to determine suitability for marine disposal. If the material was to be disposed within a WFD waterbody, then additionally the WFD EQS limits for water quality apply, and the introduction of this material into the water body must not deteriorate water quality.

### Maintenance Dredges

Maintenance dredges, if required in future, should not form part of the DCO. WFD compliance is assessed against the current River Basin Management Plan, which is revised every 6 years and has to take into account any changes in legislation that may affect risk of non-compliance. This would include revisions of the concentration-based Environmental Quality Standards (EQS) for water and or biota set down in the WFD or its daughter directive the Environmental Quality Standards Directive (EQSD).

It is normal to assess a new maintenance dredge application using contemporary sediment quality data, against the limits for water quality in force at the time, and licences should renewed periodically to ensure that the risks do not increase unacceptably due to either changes in standards required for water or worsening of the sediment quality over time. Port of London Authority licenses to dredge generally reflect this by being no longer than 3 years duration. Marine Management Organisation licences can be issued for up to 10 years

### Pollution Prevention

The report fails to consider standard of underground pipelines, which will need to be considered in addition to the tanks and banded compounds which are included in the

scoping report. The proposed pipelines should have leak detection systems and adequate secondary containment (both above and below ground). The scale of the tanks are such that catastrophic failure of tanks should be considered to ensure overtopping cannot occur and enter the water environment.

The brief risk assessment outlined assumes there are no pollutant linkages to the water environment (noted as the River Thames in this case) other than possibly via the swale. The swale linkage would require further investigation. More detail into the evidence behind the lack of other pathways would need to be provided – such as tidal influences and saline intrusion at multiple locations. Paragraph 14.26 suggests there is a groundwater flow direction to the south (towards the River Thames). If the site was fully contained there would be no discernible flow direction for groundwater unless it was all discharged via the pumped (and monitored) drainage system.

## **Ecology**

From a terrestrial ecology perspective we broadly agree that the development will have little effect on aquatic species such as greater crested newts and water vole which appear to be absent from the site. Surveys so far have recorded the presence of invasive species which will need to be removed from site before development commences. Effects on the invertebrate assemblage will need to be comprehensively mitigated. We note the intention to largely provide mitigation and compensation offsite due to operational reasons.

We'd like to see the consideration of onsite mitigation/compensation wherever possible as there is always an inherent risk with translocation of species that populations may not establish at the receptor site. Effective corridors for movement of species need to be established between the Oikos site and the offsite compensation area. Carefully designed onsite SuDS could allow mitigation and enhancement of biodiversity onsite. Compensation should more than 1:1 to ensure enhancement of biodiversity in the long-term as a result of development. We would promote a 10% net gain in biodiversity through any mitigation and compensation scheme. We would like to be involved in discussions about the offsite and onsite compensation areas and to ensure they are effectively designed to benefit aquatic species and invertebrates.

In regards to marine ecology the impacts of the proposal will predominantly impact on fisheries in relation to the proposed dredge pocket, but this sub-tidal habitat and is not a protected or priority habitat. The Marine Management Organisation should be contacted and advise on this aspect of the proposal.

The impact of vessel wake, on the nearby, Holehaven Creek SSSI, caused by larger vessels arriving and departing the site should be considered. Although this may be minimal due as large vessels already pass to the south of the site on a regular basis.

## **Control of Major Accident Hazards Regulations**

### **COMAH Regulation (Notifications and Safety Report)**

As noted in section 20 of the Scoping Report the proposal is located at a facility notified under The Control of Major Accident Hazards Regulations 2015 (COMAH) as an upper tier COMAH establishment. It is also adjacent to another upper tier

COMAH establishment operated by Calor Gas Limited. The COMAH regulations are enforced by the Competent Authority (CA). The CA comprises the Health and Safety Executive (HSE) and the Environment Agency (EA), acting jointly.

COMAH requires for operators to notify the CA 'in advance' of certain changes including 'a significant increase or decrease in the quantity of dangerous substances' and 'any modification of the establishment or an installation which could have significant consequences in terms of major accident hazards'.

Upper Tier establishments are also required to submit revised Safety Reports which, amongst other aspects, must demonstrate that the major accident scenarios in relation to the establishment have been identified and that the necessary measures have been taken to prevent such accidents and to limit their consequences for human health and the environment.

This proposal will require a review and revision to the Safety Report before the proposed changes are made at the establishment. The operator should discuss this requirement with their COMAH Intervention Manager.

Further information on COMAH is available in guidance document 'L111 - A guide to the Control of Major Accident Hazards Regulations 2015' available on the HSE website (<http://www.hse.gov.uk/pubns/books/l111.htm>).

#### COMAH Regulation (Environmental Risk Assessments)

The operator will also need to review and revise their environmental risk assessment required by COMAH. The CDOIF Guideline: Environmental Risk Tolerability for COMAH Establishments (or equivalent methodology) should be used to carry out this environmental risk assessment.

These environmental risk assessment consider the potential impact following a major accident at the establishment, rather than the impact of constructing the facility, and will be reviewed by the CA as part of COMAH regulation of the establishment. It is noted that paragraphs 20.14-20.18 refer to the OMSSD project assessment methodology and determination of the assess.

Paragraph 20.7 & 20.8 'Definition of the Study Area' in the Scoping Report refers to the study area being an area which could be impacted upon by a safety incident at the facility and then refer to the Public Information Zone/Outer Consultation Zone (figure 20.1).

For COMAH purposes, in the context of major accidents and their prevention, 'environment' is not treated as a separate discipline to 'health and safety'. The environmental assessment process looks at the 'Source – Pathway – Receptor' trios to provide an indication of whether a 'Major Accident to the Environment' (MATTE) is possible and to define the Establishment Impact Environ (EIE) – the zone around an establishment that may be impacted by any MATTEs.

#### COMAH CA Containment Policy

The COMAH CA's Containment Policy sets out the measures (for Primary, Secondary & Tertiary containment) that industry needs to achieve in order to protect both people and the environment from harm. These measures apply immediately to

new establishments and, following discussions between the operator and the Competent Authority, to any existing establishments where significant changes in inventory or operation are proposed.

It's noted that paragraphs 3.15-3.20 'Storage Infrastructure' and Figure 3.1 provides limited information on this aspect, which advises that some compounds (secondary containment bunds) will contain 2 or more storage tanks. The operator is reminded that good practice is for storage tanks to be contained in their own individual bund, see paragraph 159 of guidance document HSG 176: Storage of flammable liquids in tanks (<https://www.hse.gov.uk/pubns/books/hsg176.htm>) which states 'Individual bunding is preferred to common bunding, particularly for large tanks...'

The operator must review their detailed design against the measures set out in the Containment Policy ([https://www.sepa.org.uk/media/426906/comah-ca\\_containment\\_policy.pdf](https://www.sepa.org.uk/media/426906/comah-ca_containment_policy.pdf)) and relevant supporting 'good practice' guidance such as the 'Containment systems for the prevention pollution: Secondary, tertiary and other measures for industrial and commercial premises, CIRIA Report C736, 2014' ([http://www.ciria.org/Resources/Free\\_publications/c736.aspx](http://www.ciria.org/Resources/Free_publications/c736.aspx)) and HSG176 as referred to above.

Regulation 5 of COMAH requires the operator to take 'all measures necessary to prevent major accidents and to limit their consequences for human health and the environment'. The implementation of 'good practice' outlined in the containment policy and associated guidance (or equivalent) is part of the operator's demonstration of 'all measures necessary'. The detailed design will be reviewed as part of COMAH regulation.

#### COMAH (Major hazard sites – HSE consultation distances)

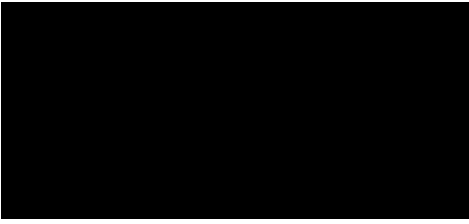
The proposed development is within the HSE's consultation distance zones for both Oikos and the neighbouring Calor Gas COMAH establishment. The planning authority is advised to consult the HSE on the proposal directly. Further information on the HSE's Land USE Planning Methodology is available at <http://www.hse.gov.uk/landuseplanning/methodology.pdf>

#### COMAH and Hazardous Substance Consents

The operator should also review the requirements of their Hazardous Substance Consent. Where COMAH operators need hazardous substances consent or need to change their existing consent, the HSE has produced an online 'wizard' to guide applicants through the major-hazard information required in an application for hazardous substances consent. The wizard can be found at <http://www.hse.gov.uk/landuseplanning/application-forms-hazardous-consent.htm>

We would welcome further pre-application engagement which will speed up our formal response to the proposed development consent order and provide certainty to the application ahead of the submission of their proposal. Such engagement should also result in a better quality and more environmentally sensitive development. The applicant should be aware that we will charge for detailed pre-application advice.

Yours sincerely



**Mr. Pat Abbott**  
**Planning Advisor**



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Our ref: CPBC/OIKOS/EIASO  
Your ref: TR030004-000005  
Date: 7 May 2020

Dear Ms Park

**RE: Environmental Impact Assessment (EIA) Scoping opinion for Oikos Marine and South Side Development, Canvey**

Thank you for the opportunity to respond on behalf of Essex County Council (ECC), defined as S43 Local Authority and statutory consultee, to provide comments on the EIA Scoping Report to inform the Environmental Statement (ES) for the proposed development described above.

As a statutory consultee, we are disappointed that the email notifying ECC of this consultation was sent to a general ECC email address which is naturally experiencing high volumes of traffic at this unprecedented time. We are aware that colleagues in Castle Point Borough Council are in a similar position. This has meant that ECC has not had the full statutory time period to review and respond to the applicant's EIA Scoping Report. Nevertheless, we have endeavoured to provide a high-level response wherever possible in relation to our statutory and non-statutory service areas.

The nature and scope of ECC's consultation response addresses the following:

- General Comments
- Energy and Low Carbon
- Flood Risk and Drainage
- Landscape
- Minerals and Waste Planning
- Highways and Transport
- Public Health and Wellbeing
- Emergency Planning
- Economic Growth, Regeneration and Skills

## **General Comments**

The proposed structure of the ES is welcomed; this should set out a clear and logical analysis of the topics identified. Table 4.2. of the Scoping Report sets out the relationship between the requirements within schedule 4 of the EIA Regulations and the proposed scope of the ES. This is broadly supported, however we consider there to be some omissions which should be comprehensively addressed within the ES for this project. The key areas are highlighted below, but further detail is provided later on within this response.

The proposed development is in close proximity to a number of residential properties, particularly to the south west, and a public footpath runs along the sea wall to the south of the site. Health is a matter which has been identified as a cross-cutting theme and, although there are limited references within the Scoping Report itself, it is noted that this would be addressed within various chapters such as traffic, air quality and safety. ECC recommends however that this topic needs to be considered more coherently and comprehensively within the ES and with its own chapter.

Similarly, the Scoping Report refers to activities which could give rise to minerals and waste planning issues such as site preparation and dredging (in so far as it relates to potential terrestrial depositing of waste). Especially where there are uncertainties, for example in terms of waste disposal, these matters need to be comprehensively addressed.

## **Energy and Low Carbon**

In relation to chapter 12 'Greenhouse Gases' paragraph 12.24 makes reference to relevant sources:

*“Any emerging GHG and climate change strategies for CPBC or South Essex will be examined together with other relevant guidance in consultation with CPBC.”*

We would also highlight that ECC has made a public commitment to formulate a Climate Action Plan to reduce carbon emissions across the county of Essex. In addition, ECC has inaugurated an independent, cross-party Essex Climate Change Commission with the purpose of:

- Identifying ways in which ECC can mitigate the effects of climate change, improve air quality, reduce waste across Essex and increase the amount of green infrastructure and biodiversity in the county
- Reducing the carbon footprint of both ECC and Essex as a whole – the Commission is expected to recommend an ambitious, but realistic target year, to have achieved net zero greenhouse gas emissions.

The Castle Point Pre-submission Local Plan (December 2019) draft Policy CC1 should also be considered in this project, with particular reference to the points below:

*“The Council will seek to mitigate and adapt to climate change and move to reducing the carbon footprint of the borough. This will be achieved by:... e. Encouraging high-quality sustainable design and construction techniques that contribute to climate change mitigation and adaptation; and f. Encouraging opportunities for the provision of renewable energy, low carbon technologies and decentralised energy as part of development proposals as appropriate.”*

We welcome the calculation of a GHG footprint for the development and the inclusion of both the construction and operation phases of the project, as well as inclusion of the sources over which the applicant has some ability to control or influence emissions. We welcome the inclusion of all 3 scopes in calculating the GHG footprint and also reference to the lifetime GHG footprint of the project. However we would highlight that the supply chain and suppliers chosen to provide services and materials to the project could also be selected in consideration of their efforts to minimise and mitigate GHG emissions through their processing of materials and practices i.e. some Scope 3 sources.

The exclusion of some sources which are <5% of the overall GHG footprint, whilst consistent with common practice and calculation guidelines, does afford further opportunity to mitigate emissions. Individually these emission categories may represent <5% of the GHG footprint but collectively they may still make a material contribution to that footprint. We would highlight the opportunity to further consider the ability to influence the GHG emissions related to these sources and the importance of avoiding as far as possible emissions in order to contribute to the UK's target to achieve net zero GHG emissions by 2050.

We recognise the approach to exclude “well to tank” emissions but recognise that this will lead to a material underrepresentation of the reality of the increased capacity of this project in the use of petroleum based fuels in the UK. This comes into conflict with the necessity for decarbonisation of the UK energy sector required to meet the national net zero targets.

There is mention of mitigation measures to reduce GHG emissions from the project and we welcome the listed examples. However, we would welcome further definition of what is deemed “appropriate mitigation”.

There is mention of reducing or offsetting emissions (12.38), however we would highlight and stress that the hierarchy should be to ‘avoid’ and ‘reduce’ emissions before offsetting should be considered (Assessing Greenhouse Gas Emissions and Evaluating their Significance, IEMA 2017).

## **Flood Risk and Drainage**

Essex County Council is the Lead Local Flood Authority (LLFA) for Castle Point Borough, and the proposed inclusion of a chapter on flood risk and surface water drainage within the ES is welcomed.

As the site falls entirely within flood zone 3, it is recommended that a site-specific detailed Flood Risk Assessment (FRA) is undertaken considering the risk of flooding from all sources and the measures taken to mitigate any potential impact. The reference to an FRA being prepared for this site, for example at paragraph 15.6, is welcomed.

As the LLFA, we would expect a detailed Surface Water Drainage Strategy including SUDS, water quality, and a SUDS adoption and maintenance plan to be submitted alongside the application for this project.

Initial high-level discussions have taken place with the applicant to discuss the surface water drainage element of the site, as referred to in paragraph 15.16, and we would welcome opportunities for further discussions.

The information supplied for flood risk and surface water management is considered sufficient, and there is not a need for additional information to be supplied as part of the ES.

## **Landscape**

We welcome the reference to the Third Edition of the 'Guidelines for Landscape and Visual Impact Assessment' (GLVIA3), National Policy Statement for Ports (2012) and Landscape Institutes Visual Representation of Development Proposals Technical Guidance Note 06/19 (2019), and would support that the LVIA needs to be in accordance with these documents.

Table 16.1 (Significance of effects matrix) should be aligned with the table below:

Magnitude of impact (degree of change)	Landscape/Visual receptor Sensitivity			
	High	Medium	Low	Negligible
<b>Major</b>	Major	Major Moderate	<del>Minor</del> — Moderate Moderate	Negligible
<b>Medium</b>	Moderate – Major	Moderate	<del>Minor</del> Moderate – Minor	Negligible
<b>Low</b>	<del>Minor</del> — Moderate Moderate	<del>Minor</del> Moderate – Minor	Negligible— <del>Minor</del> Low	Negligible
<b>Negligible</b>	Negligible	Negligible	Negligible	Negligible

Reference should also be made to the following documents:

- Essex Green Infrastructure Strategy (2020). It aims to enhance the urban and rural environment, through creating multi-functional GI that delivers multiple benefits to people and wildlife. It meets ECC’s aspirations to improve green space in our towns, cities and villages, especially close to areas of deprivation.
- Landscape Character Assessment of the Essex Coast (2005). Although much of the site is developed and classed as urban, this document provides a more detailed assessment of the surrounding landscape characteristic features and the key opportunities and threats.

We cannot agree the viewpoint locations until a Zone of Visual Influence (ZVI) and Landscape Baseline Map have been submitted. We would also like to undertake a site visit to determine whether there are any additional viewpoints or visually verified montages required.

We look forward to receiving further details regarding the study area, methodology, receptors and mitigation and are happy to be consulted throughout the process. When required, we welcome the opportunity to undertake site visits alongside the applicant to review viewpoint locations and visualisation types.

### **Minerals and Waste Planning**

ECC is the Minerals Planning Authority and the Waste Planning Authority for Castle Point Borough. The Essex Mineral Local Plan (2014) and Essex and Southend-on-Sea Waste Local Plan (2017) form part of the development plan in relation to this proposal, and are a material planning consideration.

### Minerals Planning

Given the close proximity of the proposed development area to existing development, and given the nature of that development, we would not be looking at any potential mineral safeguarding issues onsite. However, minerals should still be referred to in the ES in terms of likely mineral take of the project on a phased basis and demonstrate the need for best use to be made of them. We would welcome opportunities to discuss this further with the applicant.

### Waste Planning

Paragraph 3.30 refers to landside works which will include the “decommissioning, site preparation and clearance of any remaining redundant infrastructure and buildings”.

Dredging is also proposed to take place around jetty 2 and, as referred to in paragraph 7.7, “the dredged material will be required to be taken to either a licenced disposal/waste site on land or at sea following a Waste Hierarchy Assessment. A land disposal site will not affect the water environment, but a marine disposal site will require assessment.”

The act of dredging and disposal of dredged material at sea is outside of the remit of the Waste Planning Authority, and we have so no comments to make.

However, treatment of waste issues should be appropriately addressed within the ES especially as the applicant has acknowledged that the waste management process is not certain at the moment. They should be providing an assessment of the implications if they go with terrestrial based landfill, both for traditional construction waste and that arising from dredging. This should consider volumes and phasing.

We would welcome opportunities to discuss waste matters further with the applicant.

### **Public Health and Wellbeing**

The ES should include a chapter on population and human health as per the 2017 legislation. It is also recognised within the NPPF 2019 that “planning decisions should aim to achieve healthy, inclusive safe communities”. In the current proposed format of covering health through the various other chapters within the ES, it is unclear as to how this proposal impacts on the population nor how this proposal contributes to the objectives of the NPPF. There appears to be have been no justification provided within the scoping report as to why population and human health have been excluded and embedded into other chapters. By including the chapter on population and human health it will be clear as to how the proposal provides impacts that may be positive to the health and wellbeing of the population and also identify any unintended consequences that may need to be addressed.

The population and human health chapter should address how the proposal impacts on the wider determinants of health, how it impacts on those known to be impacted by health inequalities and link to the local health and wellbeing evidence which can be found on available public data sources such as those provided by Public Health England and ECC. The impacts upon the wider determinants of health can be assessed via a Health Impact Assessment (HIA) and details on HIA can be found on the Wales Health Impact Assessment Unit website within the HIA: a practical guide. This guidance also contains details of groups that may be more impacted by development as mentioned earlier.

The elements of environmental public health should be advised by the local environmental team within Castle Point Borough Council and the Public Health England Centre for Chemical, Radiation and Environmental Hazards (CRCE).

### **Emergency Planning**

ECC has a statutory duty to ensure that there are effective arrangements in place to respond to emergencies (and deal with disruptions affecting public services) in Essex. It is noted however that the Health and Safety Executive and the Environment Agency are the 'Competent Authority' in relation to the existing operation on site and this project, which will effectively double the storage capacity of the Oikos facility.

Reference to Essex County Council's External Emergency Plan (paragraph 20.24) which covers any incident that has the potential to have an impact beyond the boundary of the Oikos facility is welcomed.

### **Highways and Transportation**

ECC is the Highway Authority for Castle Point Borough. In early 2020 we had initial high-level discussions with the applicant in relation to this proposal, and we would welcome opportunities for further discussions.

The applicant will need to include a Transport Assessment (TA) and a Construction Management Plan as part of the submission documents. The scope of the TA needs to be agreed with the Highway Authority and in line with the principles of the EIA scope to include A130 / Canvey Road / B1014 Sommes Avenue up to the A13 junction at Sadlers Farm.

### **Economic Growth, Regeneration and Skills**

ECC and Castle Point Borough Council are part of the Association of South Essex Local Authorities (ASELA), and so the applicant may wish to include the ASELA subregion as one of the study areas for this project.

The evidence base for the socio-economic impact assessment should include:

- ASELA (2019) The South Essex Productivity Strategy
- ECC (2020) Essex Prosperity and Productivity Plan
- SQW (2019) South Essex Grow-on Space: A case for intervention
- GVA (2017) South Essex Economic Development Needs Assessment

The baseline analysis should include health and wellbeing outcomes (recognised in Table 4.2, but not listed in Chapter 19), as well as the commercial land and property market.

As well as considering adverse impacts and identifying mitigation measures, the socio-economic impact assessment should explicitly identify opportunities to maximise positive impacts. This should consider potential economies of production, distribution and consumption across the supply chain – and through engagement with other local businesses, business intermediaries and academia. There may also be opportunities to reduce socio-economic inequalities by making associated operational infrastructure (e.g. 5G or electric vehicle charging) publicly available.

We note that the Castle Point Pre-submission Local Plan (December 2019) identifies the requirement for a third access for Canvey Island, from Northwick Road, crossing Holehaven Creek, to the Manorway A1014 on the mainland. This would provide access for the island from an alternative route which does not rely on the B1014 / Canvey Way roundabout. This would provide alternative emergency access and would also open up access to employment opportunities to the west for Canvey Island residents. As a Nationally Significant Infrastructure Project, serving a vital and critical part of the UK's fuel supply infrastructure, the applicant should consider how it can contribute to the delivery of this project.

We note that because of the highly automated nature of the Oikos facility the level of additional employment is unlikely to be significant (as referred to in paragraph 10.41). However, the socio-economic impact assessment should consider skills provision to enable local communities to access any jobs created during construction and operation, including those further from the labour market.

The socio-economic impact assessment should also estimate the mix of indirect and induced jobs, and assess whether their creation will exacerbate identified supply-demand gaps for business accommodation / services / support, particularly accommodation in the Grow-on Space range (having regard to SQW's 2019 Grow-on Space Study). If this is the case, the application should consider how it can contribute to delivery of the identified requirement.

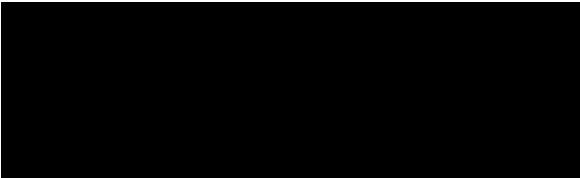


The socio-economic impact assessment should provide assurance that the whole life costs of physical infrastructure, including safe operation and maintenance and responsible decommissioning, will be met without recourse to the public purse.

## **Conclusion**

In light of the above we recommend that the ES takes into account the comments provided in relation to ECC's statutory and non-statutory services. I hope the above is of assistance – if you require further information on the contents of this single response, please contact Natalie Hayward (Principal Planner) as detailed below. When a decision is made on the applicant's EIA Scoping Report, any opinion should be sent through to ECC upon publication.

Yours sincerely



Matthew Thomas  
Growth and Development Manager  
Essex County Council

Enquiries to: Natalie Hayward (Principal Planner – Major Development and New Communities)



Email: [natalie.hayward@essex.gov.uk](mailto:natalie.hayward@essex.gov.uk)

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

Your ref: TR030004  
Our ref: 4.2.1.6693

HSE email: [NSIP.applications@hse.gov.uk](mailto:NSIP.applications@hse.gov.uk)

FAO Emily Park  
The Planning Inspectorate  
Temple Quay House  
Temple Quay  
Bristol  
BS1 6PN

6 May 2020

Dear Emily

**PROPOSED OIKOS MARINE AND SOUTH SIDE DEVELOPMENT  
PROPOSAL BY OIKOS STORAGE LIMITED (the applicant)  
INFRASTRUCTURE PLANNING (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2017 (as  
amended) – Regulations 10 and 11**

Thank you for your letter of 8 April 2020 regarding the information to be provided in an environmental statement relating to the above project. HSE does not comment on EIA Scoping Reports but the following information is likely to be useful to the applicant.

**HSE's land use planning advice**

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

According to HSE's records there is one major accident site within the indicated red line boundary for this nationally significant infrastructure project; as illustrated in, figure 1.2 '*OIKOS MARINE & SOUTH SIDE DEVELOPMENT BOUNDARY PLAN*' as part of the document '*ENVIRONMENTAL STATEMENT - SCOPING REPORT - April 2020* Planning Inspectorate Reference: TR030004'

Major accident hazard site

1. HSE ref H0179; operated by Calor Gas LTD

HSE's Land Use Planning advice would be dependent on the location of areas where people may be present. When we are consulted by the Applicant with further information under Section 42 of the Planning Act 2008, we can provide full advice.

Hazardous Substance Consent

The presence of hazardous substances on, over or under land at or above set threshold quantities (Controlled Quantities) will probably require Hazardous Substances Consent (HSC) under the Planning (Hazardous Substances) Act 1990 as amended. The substances, alone or when aggregated with others for which HSC is required, and the associated Controlled Quantities, are set out in The Planning (Hazardous Substances) Regulations 2015 as amended.

HSC would be required to store or use any of the Named Hazardous Substances or Categories of Substances at or above the controlled quantities set out in Schedule 1 of these Regulations.

Further information on HSC should be sought from the relevant Hazardous Substances Authority.

#### Consideration of risk assessments

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

#### Explosives sites

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

#### **Electrical Safety**

No comment, from a planning perspective.

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

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

Yours sincerely



Dave Adams  
CEMHD4 Policy

**From:** [REDACTED]  
**To:** [Oikos Port Development](#); [Park, Emily](#)  
**Cc:** [Planning SE](#)  
**Subject:** TR030004 - Oikos Marine and South Side Development - EIA Scoping Opinion  
**Date:** 07 May 2020 11:38:03

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**For the attention of:** Emily Park

**Site:** Oikos Marine & South Side Development, Canvey Island, Essex SS8 9SS

**Development:** Environmental Impact Assessment – Scoping Opinion

**Application Ref:** TR030004-000005

**Highways England Ref.:** #10142

Dear Emily Park,

Thank you for your consultation letter dated 8<sup>th</sup> April 2020 on the above EIA scoping opinion at Oikos Storage Limited. Highways England has been appointed by the Secretary of State for Transport as strategic highway company under the provisions of the Infrastructure Act 2015 and is the highway authority, traffic authority and street authority for the strategic road network (SRN). The SRN is a critical national asset and as such Highways England works to ensure that it operates and is managed in the public interest, both in respect of current activities and needs as well as in providing effective stewardship of its long-term operation and integrity.

In the case of this proposed site, Highways England are interested in the potential impact that development might have upon the A13, in particular the Junction with the A13 and A130, and the wider impact on the M25 at Junction 30. We are interested as to whether there would be any adverse safety implications or material increase in queues and delays on the SRN during construction and operation.

Highways England have no comment on whether an EIA is required; but if it is, it should be compatible and consistent with the required Transport Assessment for the application site. The method of assessment for the EIA should be in line with Highways England's recommended method of drawing upon the information presented in the Transport Assessment that we expect to be produced for this site.

Any assessment should be undertaken in accordance with the DfT Circular 02/2013 "*The Strategic Road Network and the Delivery of Sustainable Development*" outlining how Highways England will engage with developers including assessment requirements to deliver growth and safeguard the operation of the SRN. This includes a robust assessment of the vehicular impacts "with" and "without" development for the horizon year (full occupation) and the end of the Local Plan period to examine the net impact of non-consented development.

Although Highways England acknowledge that the site is some distance from the SRN, given the nature of the site, Highways England would expect consideration

to be given to the impact of both the operational and construction traffic on the SRN, most notably those travelling to/ from the M25 at Junction 30 and along the A13, as this route experiences heavy congestion in the peak periods.

Highways England would expect to register as an interested party when formally notified of the DCO submission by PINS and therefore early engagement will be beneficial for both parties. We are willing to attend any future meetings to discuss the proposals at this site.

I trust you find these comments useful. Please do not hesitate to contact me if you require further information.

Kind Regards,

**Alicia Price**

Highways England | Bridge House | 1 Walnut Tree Close | Guildford | Surrey | GU1 4LZ

Web: <https://highwaysengland.co.uk>

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**Birmingham B32 1AF | [https://www.gov.uk/government/organisations/highways-](https://www.gov.uk/government/organisations/highways-england)**  
**[england](https://www.gov.uk/government/organisations/highways-england) | [info@highwaysengland.co.uk](mailto:info@highwaysengland.co.uk)**

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**[england](https://www.gov.uk/government/organisations/highways-england) | [info@highwaysengland.co.uk](mailto:info@highwaysengland.co.uk)**

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1 Walnut Tree Close, Guildford, Surrey GU1 4LZ

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EAST OF ENGLAND OFFICE

Ms Emily Park  
[OikosPortDevelopment@planninginspectorate.gov.uk](mailto:OikosPortDevelopment@planninginspectorate.gov.uk)  
**BY EMAIL**

Our ref: PL00702722  
Your ref: TR030004-  
000005  
Telephone  
01223 582710

1 May 2020

Dear Ms Park

**Planning Act 2008 (as amended) and the Infrastructure Planning (EIA) Regulations  
2017(Regulations 10 and 11)**

**Application by Oikos Storage Limited (the Applicant) for a DCO for the Oikos Marine and  
South Side Development - Scoping**

Thank you for your letter dated 08<sup>th</sup> April 2020 with a formal request for a scoping opinion in relation to the above application, in accordance with Regulation 13 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2011. Historic England, as the governments lead advisors on the historic environment would like to offer our comments on this proposal, taking into consideration the information provided by the applicant. This is the document titled 'Oikos Marine & South Side Development Environmental Statement Scoping Report' (Adams Hendry Consulting – Dated April 2020).

From the information provided in the report, we understand the proposed Oikos Marine and South Side Development (OMSSD) project is to develop additional storage capacity at its existing liquid bulk harbour facility on Canvey Island (Essex). We appreciate that Oikos storage facilities have already operated at this site, handling ship delivered fuel, oil and petroleum based products for over 80 years



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Telephone 01223 58 2749 [HistoricEngland.org.uk](http://HistoricEngland.org.uk)

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The historic environment is a finite and non-renewable environmental resource which includes designated heritage assets<sup>1</sup>, non-designated assets and built heritage, historic landscapes and unidentified sites of historic and/or archaeological 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. Historic England is the Government's lead advisor on the historic environment and for the purposes of section 42 of the Planning Act 2008 and Regulation 11 of Infrastructure Planning (Environmental Impact Assessment) Regulations 2009, we are a statutory consultee. Our remit in relation to this application is twofold. Within the On-shore environment are primary consideration is in relation to designated heritage assets; Historic England's general powers under section 33 of the National Heritage Act 1983 were extended (via the National Heritage Act 2002) to modify our functions to include securing the preservation of monuments in, on, or under the seabed within the seaward limits of the UK Territorial Sea adjacent to England. We also provide our advice in recognition of the English marine plan areas (inshore and offshore) as defined by the Marine and Coastal Access Act 2009 and the UK Marine Policy Statement."

### **Historic England Advice - On-shore Historic Environment**

We confirm our view that the impact upon the historic environment is likely to be significant in EIA terms, however we support the conclusions drawn in relation to the scoping exercise that only proposes to take forward a small number of designated heritage for assessment in the Environmental Statement. The scoping report has also correctly identified a potential impact upon non-designated heritage assets and we agree that non-designated heritage assets would need to be considered.

On a more general point we recommend the LVIA sets out to provide heritage specific viewpoints with both photographs and photomontages to illustrate the ES and to support the results of the heritage assessment. If these are to be presented in the Landscape and Visual chapter, then the assessment needs to be clearly set out and cross referenced with the heritage chapter. The setting of heritage assets is not however just restricted to visual impacts and other factors should also be considered in particular noise, light, traffic and landscape assessments. Where relevant, the cultural heritage should therefore be cross-referenced to these other chapters, and we advise that all supporting technical heritage information (e.g. desk-based assessments, reports etc.) are included as appendices.

We strongly recommend that the applicant involve the county's specialist advisers on archaeological matters and we recognise that they are best placed to provide advice on non-designated heritage assets and to give advice on how the proposal can be tailored to avoid

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<sup>1</sup> Designated Heritage Assets are defined in the National Planning Policy Framework as 'A World Heritage Site, Scheduled Monument, Listed Building, Protected Wreck Site, Registered Park and Garden, Registered Battlefield or Conservation Area designated under the relevant legislation'.



and minimise potential adverse impacts on the historic environment; and of any required mitigation measures; and opportunities for securing wider benefits for the future conservation and management of heritage assets. Likewise the local Conservation Officer will need to be consulted in relation to the Grade II listed buildings which will form the focus of this assessment and are outside of the remit of Historic England.

We acknowledge the report stresses the assessment will be carried out in accordance with established policy and guidance, including the EIA regulations with reference to the National Planning Policy Framework, the Planning Practice Guidance and Historic England's Good Practice Advice.

Whilst standardised EIA matrices are considered in some planning practices to be useful tools, 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 that 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 (as described in NPPF) to set out 'what matters and why' in terms of the heritage assets' significance and setting, together with the effects of the development upon them.

### **Historic England Advice - Marine Historic Environment**

The current facility presently uses three overall and two operational jetties with transfer utilising loading arms and pipelines along these jetties into a series of storage tanks. These are described thus:

- Jetty 1 is able to accommodate tanker vessels of up to 55,000 Dead Weight Tonnes (DWT) with a draft of -12.5m chart datum (CD);
- Jetty 2 is able to accommodate tanker vessels of up to 120,000 DWT with a draft of -14.5m CD; and
- Jetty 3 is not operational.

The project requirements include provision of additional marine loading arms and infrastructure on two of the existing operational jetties (Jetty 1 and Jetty 2) to allow additional volumes of liquid products to be embarked and disembarked at the facility. We also understand that a capital dredge will be required for the Jetty2 berth pocket.

In relation to the existing and operational jetties; as this infrastructure will not produce any additional impact on known historic assets we have no further comment or other advice to offer regarding this component of the proposed OMSSD project.



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We are aware that Jetty 2 extends approximately 390m into the tidal channel at River Thames Sea Reach. At the head of the jetty, the current berth provides an alongside depth of approximately -15 m below Chart Datum (CD). The Scoping Report explains that adjacent to Jetty 2 a capital dredge is proposed to create a berth pocket with a depth of -16.5m chart datum. The pocket will be approximately 350m in length and 60m wide with appropriate provision for dredge pocket side slopes.

### Specific comments

Chapter 5 (Legislation and Policy Context) does not make reference to the draft South East Marine Plan (although the relevance of the UK Marine Policy Statement is explained); this detail is to be addressed within any ES produced.

Chapter 7 (Water environment) in paragraph 7.7 it states that the method of dredging has not been finalised, but could be any of the following:

- Water Injection Dredging (WID);
- Trailer Suction Hopper Dredging (TSHD); or
- backhoe dredging.

If TSHD or backhoe dredging is used, then the dredged material will be required to be taken to either a licenced disposal/waste site on land or at sea.

The Scoping Report explains that the proposed capital dredge will be into post-Pleistocene gravels, sands and mud predominately from the Holocene Epoch. We also note that the Scoping Report includes the results of geotechnical work conducted for the construction OSL Deepwater Jetty (otherwise known as Jetty 2) and that the material likely to be encountered during dredging will be non-cohesive medium sand. However, the comment is made that sedimentary layers comprising gravel with pebbles are known to occur at a depth of 3m, which is below the proposed dredge depth although paragraph 7.77 does suggest that gravel could be "...exposed at the base of the dredge."

Paragraph 7.53 describes analysis of long term bathymetric changes in the general area of the proposed OMSSD project and that in the vicinity of the capital dredging area seabed depth can fluctuate by 2m with no discernible trend for either erosion or accretion.

Paragraph 7.68 describes how the capital dredge area adjacent to Jetty 2 is located on the edge of the main River Thames navigation channel with bathymetry of between -14.5 to -16mCD. The proposed capital dredge aims to lower the berth pocket -16.5mCD. It is therefore apparent that the depth of the proposed capital dredge is approximately 1m. It is therefore worth considering the detail contained within paragraphs 7.69 and 7.70 which describe,



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respectively, historic capital dredging campaigns and maintenance dredging programmes that have occurred or continue to be required within the Thames estuary.

Chapter 18 (Historic Environment) – paragraph 18.2 should also take account of the relevant policies within the draft South East Marine Plan. We also acknowledge the detail contained within paragraph 18.10 that the ES produced for this proposed development will assess any known archaeological resource within or adjacent to the proposed OMSSD project utilising information held by local and national archive sources. Furthermore, we note within Table 18.5 (Summary of Historic Environment Assessment Scope) that “marine remains” has been scoped into the ES. However, in reference to paragraph 18.35 we note that it is anticipated that given that no significant archaeological remains are known to exist within the Oikos Facility or in the vicinity of the jetties that there is considered ‘low potential’ for any presently unknown archaeological materials of possible interest or importance to survive within the OMSSD project development area. Consequently, the Scoping Report concludes that archaeological mitigation measures are unlikely to be required. It therefore seems that the determination of risk of encountering any presently unknown materials of archaeological interest is minimal.

### **Marine Historic Environment - Conclusions**

In reference to the statement made in paragraph 4.35 that the “...overall significance of a potential environmental effect is generally accepted to be determined by the interaction between the sensitivity and importance and value of the receptor and the predicted magnitude of the impact being generated” we must question the approach to be adopted to determine whether or not any ‘marine remains’ of archaeological interest might be present.

We consider this an important matter to be addressed in the preparation of the ES in reference to paragraph 4.26 and the statement: “Effects which are considered to be significant, will be subject to further consideration to see if the magnitude of impact can be further reduced.”

Overall, the Scoping Report focussed attention on desk-based work, but no specific attention appears to be given to commissioning geophysical or geotechnical surveys. It is therefore an important matter to be addressed by the Applicant if any accompanying survey strategy is merited to satisfactorily produce an ES. Conventional practice would see the ES utilises such specifically commissioned survey data to corroborate the Desk-Based Assessment. An important principle therefore is that if any survey programme is commissioned to inform the design of the proposed capital dredging campaign then it should be informed by and guided by archaeological advice in reference to an adequate determination of risk.

### **Recommendations**



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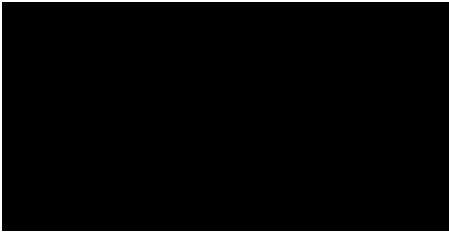
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We broadly accept the approach set out in the scoping report, but consider further assessment will be necessary to fully consider the impact on the historic environment, particularly the marine historic environment. We agree the historic environment represents a potentially significant issue in EIA terms, and we would support the need for further work.

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

Yours sincerely



Dr Will Fletcher

Inspector of Ancient Monuments (Bedfordshire, Cambridge and Essex)

[will.fletcher@historicengland.org.uk](mailto:will.fletcher@historicengland.org.uk)



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**From:** [JNCC Offshore Industries Advice](#)  
**To:** [Oikos Port Development](#)  
**Subject:** RE: TR030004 - Oikos Marine and South Side Development - EIA Scoping Notification and Consultation Reg 11  
**Date:** 15 April 2020 15:37:48  
**Attachments:** [image001.jpg](#)  
[image002.jpg](#)  
[image004.gif](#)  
[image005.gif](#)  
[image006.jpg](#)  
[image007.jpg](#)  
[image008.jpg](#)

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Good Afternoon,

Thank you for consulting JNCC on the application for Oikos Marine and South Side Development, which we received on 08/04/2020.

JNCC is the statutory conservation adviser to Government for UK offshore waters (beyond 12 nautical miles). Therefore, Natural England should provide a full response.

As such JNCC have not reviewed this application and will not be providing further comment.

Kind regards,

**Jon Connon**

*OIA Admin Officer*

*Marine Management Team*

JNCC, Inverdee House, Baxter Street, Aberdeen, AB11 9QA

Tel: 01224 266590



Email: [jon.connon@jncc.gov.uk](mailto:jon.connon@jncc.gov.uk)



[jncc.gov.uk](http://jncc.gov.uk)



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**From:** Oikos Port Development <[OikosPortDevelopment@planninginspectorate.gov.uk](mailto:OikosPortDevelopment@planninginspectorate.gov.uk)>

**Sent:** 08 April 2020 17:32

**Subject:** TR030004 - Oikos Marine and South Side Development - EIA Scoping Notification and Consultation Reg 11

Dear Sir/Madam

Please see attached correspondence on the proposed Oikos Marine and South Side Development.

Please note the deadline for consultation responses is 07 May 2020.

Kind regards,

Emily Park (MSc ACIEEM AIEMA)  
EIA Advisor

Major Casework Directorate  
The Planning Inspectorate, Temple Quay House, Temple Quay, Bristol BS1  
6PN  
Direct Line: 0303 444 5657  
Helpline: 0303 444 5000  
Email: [emily.park@planninginspectorate.gov.uk](mailto:emily.park@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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## **Decision Notice**

MC/20/0856



Emily Park  
Major Casework Directorate  
Temple Quay House  
2 The Square  
Bristol  
BS1 6PN

**Applicant Name:**  
Emily Park

Planning Service  
Physical & Cultural Regeneration  
Regeneration, Culture, Environment &  
Transformation  
Gun Wharf  
Dock Road  
Chatham  
Kent  
ME4 4TR  
01634 331700  
01634 331195  
[Planning.representations@medway.gov.uk](mailto:Planning.representations@medway.gov.uk)

### **Town and Country Planning Act 1990**

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**Location:** Oikos Storage Ltd (Oikos), Essex, , ,

**Proposal:** Consultation from the Planning Inspectorate on a request under the Planning Act 2008 (as amended) and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 - Regulations 10 and 11 2015 for a scoping opinion in respect of the Oikos Marine and South Side Development

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I refer to your letter of consultation regarding the above and would inform you that the Council **RAISES NO OBJECTION** to it.

- 0 No objections to the scoping report are raised on the basis that the development would be likely to have minimal direct or significant impact on the Medway Council administrative area and as other specialist bodies will provide advice on detailed matters such as marine and nature conservation.

#### **Your attention is drawn to the following informative(s) :-**

- 1 This decision relates to the consultation letter from the Planning Inspectorate dated 8 April 2020 reference TR030004-000005.



David Harris  
Head of Planning  
Date of Notice 28 April 2020

**TOWN & COUNTRY PLANNING (APPEALS) (WRITTEN REPRESENTATIONS)  
(ENGLAND) (AMENDMENT) (REGULATIONS 2013)**

**TOWN AND COUNTRY PLANNING ACT 1990**

***Appeals to the Secretary of State***

- If you are aggrieved by the decision of your Local Planning Authority to refuse permission for the proposed development or to grant it subject to conditions, then you can appeal to the Secretary of State under section 78 of the Town and Country Planning Act 1990.
- If you want to appeal against your Local Planning Authority's decision then you must do so within **12 weeks** from the date of this notice for appeals being decided under the **Commercial Appeals Service** and **6 months** from the date of this notice for all other **minor and major applications**.
  - However, if an enforcement notice has been served for the same or very similar development within the previous 2 years, the time limit is:
    - **28 days** from the date of the LPA decision if the enforcement notice was served before the decision was made yet not longer than 2 years before the application was made.
    - **28 days** from the date the enforcement notice was served if served on or after the date the decision was made (unless this extends the appeal period beyond 6 months).
  - Appeals must be made using a form which you can obtain from the Planning Inspectorate by contacting Customer Support Team on 0303 444 50 00 or to submit electronically via the Planning Portal at

[https://www.planningportal.co.uk/info/200207/appeals/110/making\\_an\\_appeal](https://www.planningportal.co.uk/info/200207/appeals/110/making_an_appeal)

**Commercial Appeals Service**

- This type of appeal proceeds by way of written representations, known as the "Commercial Appeals Service". Third parties will not have the opportunity to make further representations to the Planning Inspectorate on these.

**All other Minor and Major Applications**

- The Secretary of State can allow a longer period for giving notice of an appeal, but he will not normally be prepared to use this power unless there are special circumstances which excuse the delay in giving notice of appeal.
- The Secretary of State need not consider an appeal if it seems to him that the Local Planning Authority could not have granted planning permission for the



proposed development or could not have granted it without the conditions they imposed, having regard to the statutory requirements, to the provisions of any development order and to any directions given under a development order.

- In practice, the Secretary of State does not refuse to consider appeals solely because the Local Planning Authority based on their decision on a direction given by him.

### ***Purchase Notes***

- If either the Local Planning Authority or the Secretary of State refuses permission to development land or grants it subject to conditions, the owner may claim that he can neither put the land to a reasonably beneficial use in its existing state nor render the land capable of a reasonably beneficial use by the carrying out of any development which has been or would be permitted.
- In these circumstances, the owner may serve a purchase notice on the Council (District Council, London Borough Council or Common Council of the City of London) in whose area the land is situated. This notice will require the Council to purchase his interest in the land in accordance with the provisions of Part VI of the Town and Country Planning Act 1990.

**Land and Acquisitions**

Anne Holdsworth  
DCO Liaison Officer  
Land and Property  
anne.holdsworth@nationalgrid.com

www.nationalgrid.com

SUBMITTED ELECTRONICALLY:  
[OikosPortDevelopment@planninginspectorate.gov.uk](mailto:OikosPortDevelopment@planninginspectorate.gov.uk)

4<sup>th</sup> May 2020

Dear Sir / Madam

**Ref: Application by Oikos Storage Limited (the Applicant) for an Order granting Development Consent for the Oikos Marine and South Side Development (the Proposed Development) Scoping consultation**

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

I refer to your letter dated 8<sup>th</sup> April 2020 regarding the Proposed Development.

**Electricity Transmission**

National Grid Electricity Transmission has no apparatus within or in close proximity to the proposed site boundary.

**Gas Transmission**

National Grid Gas has no apparatus within or in close proximity to the proposed site boundary.

If you require any further information, please do not hesitate to contact me.

Yours faithfully

**Anne Holdsworth**  
**DCO Liaison Officer, Land and Acquisitions**

Date: 07 May 2020  
Our ref: 314141  
Your ref: TR030004-000005



The Planning Inspectorate  
**BY EMAIL ONLY**

Customer Services  
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Crewe  
Cheshire  
CW1 6GJ

T 0300 060 3900

Dear Emily Park

**RE: EIA Scoping and Regulation 11 for the Oikos Marine and South Side Development Jetty 1 and 2 at Hole haven Wharf Canvey Island Essex.**

Thank you for seeking our advice on the scope of the Environmental Statement (ES) in your consultation dated 08 April 2020 which we received on the same date.

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.

With respect to the marine aspects of the proposals, Natural England are currently unable to confirm the suitability of what is included in the scoping report for two main reasons. Firstly, the final dredging methodology has not been confirmed. Natural England would expect that the decision on which method is adopted is based on which is found to be least environmentally damaging and by the contamination levels identified within the targeted dredging footprint. Details of a confirmed method and the levels of contamination within the sediment and down to the proposed dredge level, in line with Cefas action levels, should be provided in the Environmental Statement.

Secondly, the full footprint of the project has not been provided. This means that natural England cannot confirm that the designated sites listed in the scoping report are accurate or sufficient. In order to ascertain a full zone of influence, Natural England advise that up-to-date modelling (to include sediment plume and hydrodynamic impacts) based on sufficient and up-to-date data should be presented within the Environmental Statement. This modelling should capture all aspects of the dredge, including the current capital dredge and maintenance dredge schedule. Furthermore given the lifetime of the project, we would expect the most up-to-date and precautionary climate change predictions should be included as well. Until this modelling is provided, Natural England are unable to support the conclusion that Benfleet & Southend Marshes should be scoped out of the Environmental Statement, as we have not been provided with the evidence to support this.

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<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://www.ebarchive.nationalarchives.gov.uk/+http://www.communities.gov.uk/planningandbuilding/planning/sustainability/environmental/environmentalimpactassessment/noteenvironmental/>

Once the final dredge methodology, and the full footprint of the project has been produced, Natural England would expect that all relevant designated sites together with their relevant features be assessed against a full suite of impact pathways.

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

We would be happy to comment further should the need arise but if in the meantime you have any queries please do not hesitate to contact us. For any queries relating to the specific advice in this letter only please contact me on 02080263523. 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

Anna Bush  
Lead Planning Adviser

## **Annex A – Advice related to EIA Scoping Requirements**

### **1. General Principles**

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

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

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

### **2. Biodiversity and Geology**

#### **2.1 Ecological Aspects of an Environmental Statement**

Natural England advises that the potential impact of the proposal upon features of nature conservation interest and opportunities for habitat creation/enhancement should be included within this assessment in accordance with appropriate guidance on such matters. Guidelines for Ecological Impact Assessment (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.

Natural England generally supports the proposed approach to the assessment of ecological impacts detailed in Chapter 6 of the Environmental Scoping Report. This approach is in line with the mitigation hierarchy: avoid, mitigate, compensate.

Natural England are in agreement with the Important Ecological Features identified at this stage within Chapter 6.

## **2.2 Internationally and Nationally Designated Sites**

The ES should thoroughly assess the potential for the proposal to affect designated sites.

European sites (e.g. designated Special Areas of Conservation and Special Protection Areas) 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, possible Special Areas of Conservation, 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.

### **Sites of Special Scientific Interest (SSSIs) and sites of European or international importance (Special Areas of Conservation, Special Protection Areas and Ramsar sites)**

The development site is within close proximity i.e. within 5 km of the following designated nature conservation site(s):

- Holehaven Creek SSSI; South Thames Estuary and Marshes SSSI; Thames Estuary and Marshes Ramsar & SPA; Canvey Wick SSSI; Benfleet and Southend Marshes SSSI SPA and Ramsar; and Vange and Fobbing Marshes SSSI.
- Natural England notes the proposal to prepare a HRA Screening Report in accordance with the requirements of the Conservation of Habitats and Species Regulations 2017 (the Habitats Regulations). In particular, we note this will include an assessment of the foreshore area, which may have a functional linkage to the Thames Estuary and Marshes SPA & Ramsar. We advise that a screening assessment should consider impacts to functional linkages particularly in relation to the winter water bird assemblages. Functionally linked land provides an important role in maintaining or restoring the population of qualifying species at favourable conservation status.
- Natural England advises that it is likely that the developmental footprint may overlap with SPA birds activity either directly or through overlap with functional land. Therefore, consideration should be given to ensuring no adverse impact on overwintering bird populations. For example, temporal work restrictions may need to be considered.
- Natural England advises that the development should thoroughly assess the impacts to all relevant designated sites using Natural England's Impact Risk Zones. This information should inform the distance at which an initial assessment of the potential risks to SSSIs posed by the development proposals should be considered. Guidance can be found here: <https://data.gov.uk/dataset/5ae2af0c-1363-4d40-9d1a-e5a1381449f8/sssi-impact-risk-zones-england>
- Further information on SSSI's and their 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.

- We advise that the relevant conservation advice packages are referred to in order to establish that all impact pathways are considered in the Environmental Statement. European site conservation objectives are available on our internet site <http://publications.naturalengland.org.uk/category/6490068894089216>

### **2.3 Regionally and Locally Important Sites**

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

Natural England recognise that Local Wildlife Sites within 2km of the proposed development have been identified in Table 6.5.

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

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

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

### **2.5 Habitats and Species of Principal Importance**

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

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

Natural England advises that a habitat survey (equivalent to Phase 2) is carried out on the site, in

order to identify any important habitats present. In addition, ornithological, botanical and invertebrate surveys should be carried out at appropriate times in the year, to establish whether any scarce or priority species are present. The Environmental Statement should include details of:

- Any historical data for the site affected by the proposal (e.g. from previous surveys);
- Additional surveys carried out as part of this proposal;
- The habitats and species present;
- The status of these habitats and species (e.g. whether priority species or habitat);
- The direct and indirect effects of the development upon those habitats and species;
- Full details of any mitigation or compensation that might be required.

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

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

Natural England advise that consideration should be given to species protected under Schedule 5 of the Wildlife and Countryside Act (1981 as amended). For example, the Thames Estuary is known to have records of tentacle lagoon worm. Further details of the species protected through this legislation can be found here: <https://www.gov.uk/government/publications/protected-marine-species>

## **2.6 Local Records**

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

## **3. Designated Landscapes and Landscape Character**

### **Landscape and visual impacts**

Natural England would wish to see details of local landscape character areas mapped at a scale appropriate to the development site as well as any relevant management plans or strategies pertaining to the area. The EIA should include assessments of visual effects on the surrounding area and landscape together with any physical effects of the development, such as changes in topography.

The 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). The methodology set out is almost universally used for landscape and visual impact assessment.

In order to foster high quality development that respects, maintains, or enhances, local landscape character and distinctiveness, Natural England encourages all new development to consider the character and distinctiveness of the area, with the siting and design of the proposed development reflecting local design characteristics and, wherever possible, using local materials. The Environmental Impact Assessment process should detail the measures to be taken to ensure the



building design will be of a high standard, as well as detail of layout alternatives together with justification of the selected option in terms of landscape impact and benefit.

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

The assessment should refer to the relevant [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.

### **Heritage Landscapes**

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

### **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. 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 of the NPPF. We 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 of the NPPF.

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

### **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 expects the ES to consider local environmental priorities. These include the potential importance of the proposed site to Canvey Wick SSSI in terms of its nationally significant invertebrate populations, particularly considering its proximity at ca. 700m. Natural England would welcome any proposals which improved the connectivity of invertebrate habitats between the SSSI and the proposed development.

Natural England supports the projects intention to supply an appropriate level of Biodiversity Net Gain, in addition to the proposed off-site mitigation land.

With regards fish species and fish migration in the Thames, we recommend that advice is sought from the Environment Agency.

## **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.

Emily Park  
EIA Advisor  
Planning Inspectorate  
Major Casework Directorate  
Temple Quay House  
2 The Square  
Bristol, BS1 6PN

**7 May 2020**

**Port of London Authority Response: Oikos Marine & South Side Development Environmental Statement Scoping Report Consultation. Ref: TR030004-000005**

Dear Emily

Thank you for your letter dated 8<sup>th</sup> April 2020 inviting the Port of London Authority (PLA) to comment on the information that it considers should be provided in the Environmental Statement (ES) for the Oikos Marine & South Side Development proposal at Canvey Island in Essex.

For information, The PLA is the Statutory Harbour Authority for the Tidal Thames between Teddington and the Thames Estuary. Its statutory functions include responsibility for conservancy, dredging, maintaining the public navigation and controlling vessel movement's and its consent is required for the carrying out of all works and dredging in the river and the provision of moorings. The PLAs functions also include for promotion of the use of the river as an important strategic transport corridor to London. The PLA also has a particular interest in the proposal as the landowner of the site and surrounding areas, in addition to its function as the Statutory Harbour Authority.

**Site Location:**

- The PLA note that the redline boundary for the proposed development extends beyond the physical aspects of the development and into the River Thames itself, including the proposed dredging area at jetty two and parts of the river around jetties one and three. It is questioned, particularly for jetties one and three that if there are no works proposed in the river around these

sites, whether the red line boundary should just extend around the jetties themselves rather than include parts of the riverbed where no works are proposed.

### **General Points:**

- It is noted that the development site has a current river works licence, granted under section 66 of the 1968 PLA Act for the works and use of the existing jetties. It will be important for discussions to be held between the PLA and the applicant at an early stage regarding any amendments to the river works license (including dredging) and its incorporation as part of the DCO process.
- The PLA in general welcome the proposal which is looking to make greater use of the River Thames for the transportation of goods and materials, as well as the proposal to make use of the river during the construction phase of the proposed development as part of new proposed marine infrastructure to be installed on jetties one and two. The ES will need to demonstrate how the use of the river for the transportation of construction and waste materials, either directly to/from site or through the supply chain via other nearby terminals is to be maximised in line with planning policy. It will also need to be made clear as the scheme develops on any impacts as a result of the increased river traffic, particularly once the facility is operational.
- Throughout the document, there are several references to the need for a Construction Environmental Management Plan (CEMP) to be produced. The CEMP must include full consideration of the use of the river during the construction phase of the proposal, not just for works on the jetties themselves, but for the landside construction works as well.
- The proposal is expected to increase the quantity of product through the facility by more than five million tonnes a year. The ES should clearly display the existing throughput, expected increase and overall total of product to be processed annually, as well as the expected number of additional vessels that will be expected to visit the facility annually.
- In each of the chapters within the Scoping Report there is a summary of the consultation that will be required and with whom included. Although the PLA is mentioned in some sections but not in others. It is considered that the PLA must be consulted as part of each section within the ES where the PLA have made comments in this response.

- Although some PLA documents have been included in the scoping report, other relevant documents have not. This includes the PLAs Vision for the Tidal Thames (The Thames Vision) (2016). This document must be considered as part of the ES, as many of the goals included here are directly relevant to the proposal.

**Specific Comments:**

Site and Surroundings:

- Figure 1.2 (Boundary Plan) identifies an 'envisaged location of ecological mitigation and enhancement' with the precise area to be defined. Further details of this proposed area including the specific amount of land required for the ecological mitigation and enhancement must be provided as part of the ES. In addition, this land is currently rented to Brickhouse Farm by the PLA as landowner and is not included within the red-line boundary for the site. The applicants will need to secure the written consent of the PLA as the landowner with regard to the use of this land.
- Related to this, figure 6.2 (Habitat Features) in the Terrestrial Ecology chapter identifies two areas of mitigation areas within the site boundary. The ES must confirm whether these areas are proposed in addition to the 'envisaged location of ecological mitigation and enhancement' identified in figure 1.2 or is an alternative, particularly as one of these identified areas, to the east of compound 4, appears unchanged in figure 3.1 (*THE OMSSD PROJECT*). In addition, figure 6.2 also includes a different red-line boundary for the proposal around the jetties. It must be ensured that the redline boundary is consistent throughout the scoping report and forthcoming ES.
- Paragraph 2.9 states that jetty one is able to accommodate tanker vessels of up to 55,000 Dead Weight Tonnes (DWT) with draft within the berth box of -12.5m chart datum (CD). However, significant shoaling means that the recent depth on the berth was 8.4m, with depths between 5 and 8m in the approaches. The dredge campaign currently consented by the PLA underway only allows a dredge to -9m CD.
- Furthermore, paragraph 2.9 also states that jetty two is able to accommodate tanker vessels of up to 120,000 DWT with a draft of -14.5m CD and as part of this project it is proposed to increase the depth at jetty two, to allow for larger vessels to visit, as well as improve loading facilities at both operational jetties. However there does not appear to be a specific reference on the maximum

vessel size that is expected to visit the jetties as a result of the project scheme. Details of such vessels must be provided as part of the ES.

- Paragraph 2.11 states that there is an emergency access route via the Calor Gas roadway, but no further details are provided of the route. This must be included within the ES including confirmation of whether this is an existing or proposed access route.

#### Environmental Issues and the EIA Process:

- The project includes the proposal in paragraph 3.22 for the new storage tanks to be connected to the existing underground fuel pipelines. As the project develops further detail will be required on the amount of spoil that may need to be removed to enable the provision of new underground infrastructure, and whether this spoil will be removed via road or river.
- Paragraph 3.42 correctly states that the Oikos Facility is located both within and adjacent to the statutory PLA Harbour Authority Area on the River Thames, and that part of the facility located outside the statutory area is on port operational land owned by the PLA. As noted above, the ES must clearly state that the PLA are also the freehold owner of both the riverbed and adjoining land, including the Oikos site, the HBC facility and Brickhouse Farm.

#### Legislative and Policy Context

- With regard to paragraph 4.19, it is understood that the applicant does not yet have the PLA's consent as landowner to transfer ecological mitigation off site to the existing farmland located to the north of the facility. The ES must detail how the project results in an appropriate level of biodiversity net gain, taking into the account the loss of environmental mitigation sites within the red line boundary and how the mitigation extent proposed offsite will address this loss as well as provide net gain.
- The Marine Management Organisations (MMO) recently published draft South East Marine Plan (2020) should be included and considered within this section.

## Terrestrial Ecology

- The applicant is proposing to address the relocation of two existing ecological mitigation measures within the Oikos Facility in advance of the DCO project under the Town and Country Planning Consenting Regime. As noted above, the PLA must also give its consent to this as the landowner.
- Table 6.1 (*Desk study data/geographical radi*) does not refer to UK Biodiversity Action Plan (BAP) Priority Habitats which are included under section 41 (41) of the Natural Environment and Rural Communities (NERC) Act. These must be considered under the desk-based study. In addition, it is noted that Aquatic Invertebrates are not included here but the birds that feed on them are. Also, Table 6.4 (*Designated statutory sites within 5km of the development site boundary*), although included in the Terrestrial ecology section, includes aquatic protected sites. The ES must ensure that the Terrestrial Ecology and Marine Ecology sections are closely linked and cross-referenced in order they can be read as a whole, to ensure all relevant species and habitats are robustly assessed.
- Under the consultation section in paragraph 6.27, the PLA must be consulted as landowner on the proposed desk study and ecological survey work, as well as other relevant agencies including the RSPB.
- Paragraphs 6.34 and 6.36 appear to have had some protected species redacted. The applicant must confirm if this is a mistake and share the full results of the surveys undertaken to date with the PLA, as landowner of the site.
- With regard to paragraph 6.41, the PLA requests to see further detail on why, for operational reasons, the applicant would wish to relocate the current ecological mitigation areas that exist on site to an area off-site even in the absence of this project. The PLA recommends that as part of the ES, all potential sites within the redline boundary are considered for any potential environmental enhancements, such as the planting of wildflowers or marshland plants around drainage areas, before looking at off-site mitigation.
- Paragraph 6.45 states that a scope for an HRA Screening Report will be produced and agreed with the relevant statutory bodies. The PLA must also be involved in this. As highlighted above,

although this is included in the terrestrial ecology section, it includes aquatic sites whilst the mitigation only appears to be terrestrial.

- As part of the identification of initial mitigation measures, paragraph 6.56 states that at the operational stage the applicant will provide an appropriate Ecological Management Plan for any off-site area to ensure its continuing value for biodiversity in the long term. This implies that the applicant will manage land owned by the PLA for mitigation currently without the PLAs consent. Details of the monitoring proposed for such a site must be provided as part of the ES and the PLA consulted.

### Water Environment

- The need for a Water Framework Directive Assessment is included in section 8 (Marine ecology) but is not mentioned within this section. This should be amended as part of the ES.
- Paragraph 7.7 includes a number of options with regard to the method of dredging for jetty two. With regard to disposal it is stated that the only presently open licenced marine disposal sites in the local area are understood to be in the Outer Thames Estuary. Within the ES consideration must be given to the potential use of material at nearby land-based disposal sites such as at Cliffe and Rainham Marshes for habitat enhancements, noting that these are highlighted in paragraph 7.70.
- It is stated in paragraph 7.15 that the hydrodynamic and sediment process effects are often the primary cause of effects in other topic areas, such as benthic habitats, water quality, navigation etc. which are considered separately in other chapters - such as Marine Ecology and Commercial and Recreational Navigation – of the Scoping Report. As noted in the Terrestrial Ecology chapter above further detail is required on what is to be included within this section and what is included in other related chapters.
- Paragraph 7.51 should be amended to refer to the Medway Channel rather than Medway coast.
- Paragraph 7.68 states that the proposed dredge is larger than any previous proposed size dredge at the site. With regard to previous schemes at the site there is no mention of the sampling results of sediment quality that was submitted to the PLA and the MMO in 2019 for proposed dredging works at jetty two and whether this could be of use as part of this scheme.



- As noted above, the PLA must be included within the consultation part of this chapter.

### Marine Ecology

- The 2010 JNCC link in table 8.2 (*Data Sources*) is not accessible and should be updated. In addition, the CEFAs report is only for commercially important fish species and should also be updated to reflect this.
- The Medway Marine Conservation Zone (MCZ) should be included in this section. In addition, the cockle and saltmarsh beds located in close proximity around Canvey Island and Two Tree Island must also be included here and taken into account as part of the future assessment.
- Within paragraph 8.73, bottlenose dolphin (*Tursiops truncatus*) are commonly found around the Southend area. Also on paragraph 8.74, seals are regularly recorded on the Blyth sands, in smaller groups than at Marsh End but still significant. These should be recognised within the ES and taken into account within future assessments.
- As noted above, the PLA must be included within the consultation part of this chapter.

### Commercial and Recreational Navigation

- It is essential that a Navigational Risk Assessment (NRA) is completed as part of the Environmental Statement, and that this covers impacts during both the construction and operation stages of the proposed development, particularly to assess any potential risks / impacts for vessels that currently use the facility, including during the construction phase.
- Welcome reference to the need to continue consultation with the PLA on this topic as well as the need to consult nearby recreational clubs, marinas and boatyards. Any nearby small-scale commercial operations should also be included in this section as well.

- Under the initial assessment of likely effects section, it is considered that the effects must also include swamping of craft during the construction phase and grounding of construction craft in the approaches to jetty one.
- Paragraph 9.33 lists the mitigation measures or mitigation controls which will be identified through the NRA process for adoption/implementation as appropriate. However, all the controls listed are already in place. The ES must confirm this and confirm if this is appropriate or if any additional measures will also be required.

### Traffic and Transport

- It is considered that the ES should include consideration of the potential implications of the proposed Roscommon Way (Phase 3) extension, which has been indicatively identified on the policies map of the Castle Point Pre-submission Local Plan (2019) to the north of the Oikos facility through the Brickhouse Farm site and in close proximity to the proposed ecological mitigation area. Albeit it is understood that there is currently no funding or timeframe for this scheme, and there is no consent from the landowner.
- It is expected that the ES will provide details on the estimated number of vessel movements that will take place as part of the construction phase of the project.
- As noted above, the PLA must be included within the consultation part of this chapter.

### Air Quality

- More detail will be required in the ES on what the assessment on ship emissions will cover. As part of the assessment the applicant may need to access the PLAs port wide inventory data and therefore the PLA must be included as a relevant consultation body as part of paragraph 11.33 on consultation.
- There is no mention of the Clean Maritime Plan (2019) or Port Air Quality Strategies (2019) documents in this chapter or the scoping report. These must be referenced and if not considered necessary to include, the applicant should state why.

Table 11.2 (Summary of Scope of Air Quality Assessment), states that the potential impacts of vessel emissions in the operational phase are proposed to be scoped out of the Air Quality Assessment. The PLA considers that this potential impact should instead be scoped into the assessment. This is due to the expected substantial increase in throughput as part of the scheme, which will lead to increased vessel numbers visiting the facility. The PLA is involved in updating its air quality strategy in line with the Department for Transport guidance above and strongly considers that this potential impact is scoped into the assessment.

- Figure 11.2 (*Relevant Castle Point Borough Air Quality Monitoring Sites*) states that several existing monitoring sites are located some distance from the site. If monitoring is for the Air Quality Management Strategy (AQMS) there is a risk that exceedances could be elsewhere on the site or near public spaces. The ES must confirm if this is appropriate.
- The use of low sulphur fuel is already a requirement in the Thames and is not relevant to this application.
- As noted above, the PLA must be included within the consultation part of this chapter.

### Greenhouse Gases

- Although it is welcomed that the PLAs Air Quality Strategy (2018) is included in this section in paragraph 12.23 it is disappointing that it has not been referred to in chapter 11 on Air Quality. This must be amended as part of the ES. There is also reference to the PLAs Adapting to Climate Change Report which includes a commitment to reduce carbon emissions from PLA activities. To note this is the PLAs own strategy. The applicant within the ES should identify their own targets to reduce GHG emissions.
- There is also little mention of net zero within this section or the document as a whole, including on any transition required over the lifetime of the project. This must be addressed in more detail in the ES.
- Table 12.1 (*Summary of Scope of GHG Assessment*) states that as part of the construction phase, vessel emissions will only consider emissions from inbound vessel movements only. Further detail must be provided on why this is the case and outbound vessels or vessels at berth are not

included. It must also be ensured that this assessment is closely aligned with the air quality scoping report mentioned in section 11.

- Table 12.1 also states that no land use change will occur as part of the project, however some land use change will be occurring as some existing ecological mitigation areas are proposed to be moved. The table must be amended accordingly and addressed within the GHG assessment.
- With regard to paragraph 12.39, support the reference to the implementation of policies to encourage low emission sea transport for imported fuels. Further detail on these policies should be provided with the ES and as part of the GHG Assessment.
- As noted above, the PLA must be included within the consultation part of this chapter.

#### Noise and Vibration

- No comments

#### Ground Conditions

- No comments

#### Flood Risk and Surface Water Drainage

- The applicant through the ES must provide details of the safeguards that will be in place in the event one of Canvey Islands main surface water pumps fails as part of the flood risk and surface water drainage assessments.

#### Landscape and Visual

- Chapter 6 (Terrestrial Ecology) states that even in the absence of the OMSSD project, it is expected that, for operational reasons, the applicant would wish to relocate the current ecological mitigation areas that exist on site to an area off-site. Therefore it is considered that this section must provide more detail on the expected changes and potential loss of habitat within the site within the Landscape and Visual Impact Assessment.
- As noted above, the PLA must be included within the consultation part of this chapter.

## Lighting

- It must be ensured that the proposed lighting assessment considers potential adverse effects of proposed lighting on river ecology. It is also noted that although navigational lighting is specifically referenced in paragraph 17.5 as a potential receptor group considered to be sensitive to changes resulting from this project, it does not appear to have been specifically considered further in this section. Further detail must be provided with regard to this in the lighting assessment and the PLA specifically included as part of the consultation section.

## Historic Environment

- No comments

## Socio-Economics

- No comments

## Safety

- No comments

## Cumulative and In-Combination Effects

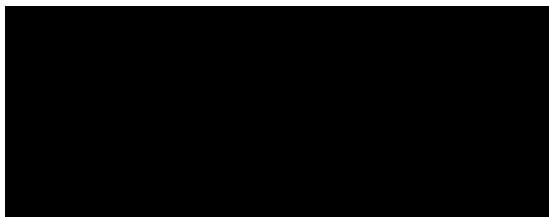
- Overall the scoping report gives the impression that both jetties will work to full design capacity, so the jetty one berth and approach will continue to require substantial maintenance and in the process some accretion does occur for a short time (weeks-months) in jetty two. To note the arrival and departure of fully laden 16m vessels to jetty two is not just dependant on the depth on the berth but also on the extensive approaches which extend outside of the PLA's navigational jurisdiction. The proposed scheme therefore becomes reliant on the deep water channel to the Sunk being monitored and maintained so that the socio-economic benefits that will be presented can be realised. This has been raised previously with regard to previous proposals at jetty two and must be considered as part of this proposal, particularly the potential reliance of this scheme on others, such as London Gateway within this chapter.

## Glossary and Acronyms

- No comments

I hope these comments are of assistance, if you wish to discuss any of the matters raised above please contact me on the details at the top of this response.

Yours Faithfully



Michael Atkins  
Senior Planning Officer  
Port of London Authority



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England

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Your Ref: TR030004-000005  
Our Ref: 53250CIRIS

Ms Emily Park  
EIA Advisor  
The Planning Inspectorate  
Major Casework Directorate  
Temple Quay House  
2 The Square  
Bristol, BS1 6PN

6<sup>th</sup> May 2020

Dear Ms Park

**Nationally Significant Infrastructure Project  
Oikos Marine and South Side Development Scoping Consultation Stage**

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

PHE exists to protect and improve the nation's health and wellbeing and reduce health inequalities; these two organisational aims are reflected in the way we review and respond to Nationally Significant Infrastructure Project (NSIP) applications.

The health of an individual or a population is the result of a complex interaction of a wide range of different determinants of health, from an individual's genetic make-up, to lifestyles and behaviours, and the communities, local economy, built and natural environments to global ecosystem trends. All developments will have some effect on the determinants of health, which in turn will influence the health and wellbeing of the general population, vulnerable groups and individual people. Although assessing impacts on health beyond direct effects from for example emissions to air or road traffic incidents is complex, there is a need to ensure a proportionate assessment focused on an application's significant effects.

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

**Environmental Public Health**

We note that this site is a top tier Control of Major Accident Hazards (COMAH) site and we assume the site will adhere to the relevant COMAH regulations which fall outside of this NSIP.

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**

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

### **Human Health and Wellbeing**

This section of PHE's 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
- Socioeconomic
- Land Use

Having considered the submitted Scoping Report, PHE wish to make the following specific comments and recommendations:

### **Vulnerable populations/ sensitive receptors**

Although local sensitive residential receptors have been listed, a detailed approach to the identification of sensitive receptors has not been provided.

The EIA should identify the population that will be affected by the potential impacts. Clearly those living and working near to the development may be exposed to a range of impacts. In addition to the general population of the local community, certain parts of the population may experience disproportionate negative health effects, for example, as a result of the 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 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?).

When considering receptors, we must also consider physical receptors, which may directly or indirectly influence human health. The value of the receptor is a function of a range of factors (e.g. biodiversity value, social/community value, and economic value).



These could involve sensitive locations or assets, for example:

- Leisure facilities
- Publicly available green/blue space
- Community assets, such as village halls, health and social care facilities, public sector facilities, VCSE assets
- Businesses

### Scoping Recommendation

The PEIR should address the proportionate identification of sensitive human and physical receptors and assess the significance of any impact arising from the scheme

In addition to the baseline data listed in paragraphs 19.10 & 19.22 information from PHE's Public Health Outcomes framework, the local authority Joint Strategic Needs Assessment / Health and Wellbeing Board Strategy or other health needs assessments should be considered.

### **Physical activity and active travel**

The report, via the use of GEART, identifies how non-motorised user (NMU) will be impacted through the loss or change in the existing road network. Paragraph 10.12 lists the environmental factors to be considered, but this fails to specifically include cyclist safety and amenity.

Active travel forms an important part in helping to promote healthy weight environments and as such it is important that any changes have a positive long term impact where possible. It is important to understand current NMU activity across the affected highway and therefore any potential impacts and effects.

Paragraph 2.20 identifies the existence of the public footpath running along the flood defence wall. The existing public footpath (Reference: CANV\_8) immediately to the south of the Oikos Facility forms part of a circular route that runs around the perimeter of Canvey Island. The scoping report does not scope in any assessment on the potential impact for users of this footpath.

### Scoping Recommendations

Any traffic counts and traffic assessment should, as far as reasonably practicable, identify the scale of NMU use and assess the likely significance of any impacts on these sensitive receptors, including cyclists.

The ES should assess and address any impact on the use of the public footpath, which runs adjacent to jetty 1 & 2.

### **Cumulative Impact Assessment**

This part of Essex is expected to experience a number of large developments and NSIPs in the short term. The demand for additional public services, including healthcare, or the need to find accommodation may create significant impacts due to the presence of the individual construction workforces. The cumulative impact assessment must therefore consider a geographic scope wider than those proposed for direct impacts on health, for example a travel to work approach.

### **Housing affordability and supply**

The presence of construction workers could foreseeably have an impact on the local availability of affordable housing, particularly that of short term tenancies, for certain communities. These residents will have the least capacity to respond to change (for example, where there may be an overlap between construction workers seeking accommodation in the private rented sector, and people in receipt of housing benefit seeking the same lower-cost accommodation).

Although the scheme in isolation may not have a significant effect the demand for local housing, this needs to be considered across the wider geographic housing area and in particular the demand for accommodation from other concurrent large developments and NSIPs, for example for Lower Thames Crossing

#### Scoping Recommendation

Given the number of other large developments near the study area the cumulative impact on housing provision should be included.

Demand for temporary accommodation by the construction work force should be identified and an assessment made regarding the impact on local housing supply and affordability, particularly in relation to low cost housing.

#### **Impact on health and social care**

The presence of construction workers could foreseeably have an impact on the local demand for public services and local health services.

Although the scheme in isolation may not have a significant effect, this needs to be considered across the wider geographic area and in particular the demand public services from other concurrent large developments and NSIPs, for example for Lower Thames Crossing

#### Scoping Recommendations

Given the number of other large developments near the study area the cumulative impact on public services should be included

The ES should assess the current and future demand on public services and the subsequent assessment of significance as a result of the DCO.

Yours sincerely

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**

PHE was established on 1 April 2013 to bring together public health specialists from more than 70 organisations into a single public health service. We are an executive agency of the Department of Health and are a distinct delivery organisation with operational autonomy to advise and support government, local authorities and the National Health Service (NHS) in a professionally independent manner.

We operate from 8 local centres, plus an integrated region and centre for London, and 4 regions (North of England, South of England, Midlands and East of England, and London). We work closely with public health professionals in Wales, Scotland and Northern Ireland, and internationally.<sup>1</sup> We have specialist teams advising on specific issues such as the potential impacts of chemicals, air quality, ionising and non-ionising radiation and other factors which may have an impact on public health, as well as on broader issues such as the wider determinants of health, health improvement and health inequalities.

### **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>2</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>3</sup> in relation to a proposed NSIP, PHE will be consulted by the Planning Inspectorate about the scope, and level of detail, of the

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<sup>1</sup> <https://www.gov.uk/government/organisations/public-health-england/about#priorities>

<sup>2</sup> The Infrastructure Planning (Interested Parties and Miscellaneous Prescribed Provisions) Regulations 2015

<sup>3</sup> The scoping process is administered and undertaken by the Planning Inspectorate on behalf of the Secretary of State

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**

**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>4</sup>, IEMA Guide to Delivering Quality Developments<sup>5</sup>, and Guidance: on Environmental Impact Assessment<sup>6</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 :

<sup>4</sup> <https://www.gov.uk/government/publications/handbook-for-scoping-projects-environmental-impact-assessment>

<sup>5</sup> <https://www.iema.net/assets/newbuild/documents/Delivering%20Quality%20Development.pdf>

<sup>6</sup> <https://www.gov.uk/guidance/environmental-impact-assessment#the-purpose-of-environmental-impact-assessment>

- 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.
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>7</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

<sup>7</sup> DCLG guidance, 1999 <http://www.communities.gov.uk/documents/planningandbuilding/pdf/155958.pdf>

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 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<sup>1</sup> 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>8</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>9</sup>, jointly published by Liverpool John Moores University and the Health Protection Agency (HPA), examined health risk perception and environmental problems

<sup>8</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>9</sup> Available from: <http://www.cph.org.uk/wp-content/uploads/2012/08/health-risk-perception-and-environmental-problems--summary-report.pdf>



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.

### **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>10</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>11</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>12,13</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>14</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>15</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.

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<sup>10</sup> <https://www.gov.uk/government/collections/electromagnetic-fields#low-frequency-electric-and-magnetic-fields>

<sup>11</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>12</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>13</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>14</sup> <http://webarchive.nationalarchives.gov.uk/20140629102627/http://www.hpa.org.uk/Publications/Radiation/NPRBArchive/DocumentsOfTheNRPB/Absd1502/>

<sup>15</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)

## **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 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 EMFs (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>16</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>17</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>18</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>19</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.

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<sup>16</sup> <http://www.emfs.info/policy/sage/>

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[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>18</sup> These recommendations are given in publications of the ICRP notably publications 90 and 103 see the website at <http://www.icrp.org/>

<sup>19</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.

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 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>20</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>21</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>22</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>20</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>21</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>22</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.

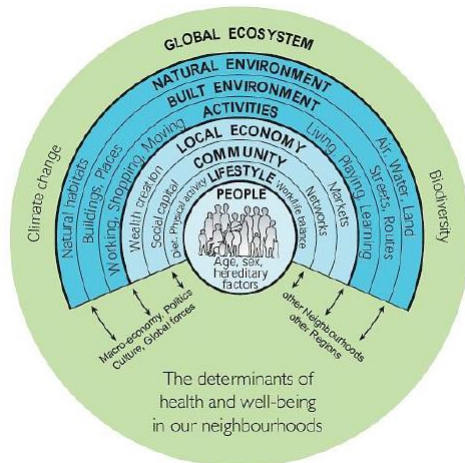
For inadvertent intrusion, the dose if the intrusion occurs should be presented. It is recommended that the post-closure phase be considered as a series of timescales, with the approach changing from more quantitative to more qualitative as times further in the future are considered.

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>23</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

<sup>23</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.

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. 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 from the above guides.

#### **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 on 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 crossed 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.



## **Oikos Marine and South Side Development – proposed by Oikos Storage Ltd**

### **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 8 April 2020 requesting Royal Mail's comments on information that should be provided in Oikos Storage Ltd Environmental Statement.

Royal Mail's consultants BNP Paribas Real Estate have reviewed the applicant's Scoping Report dated April 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:

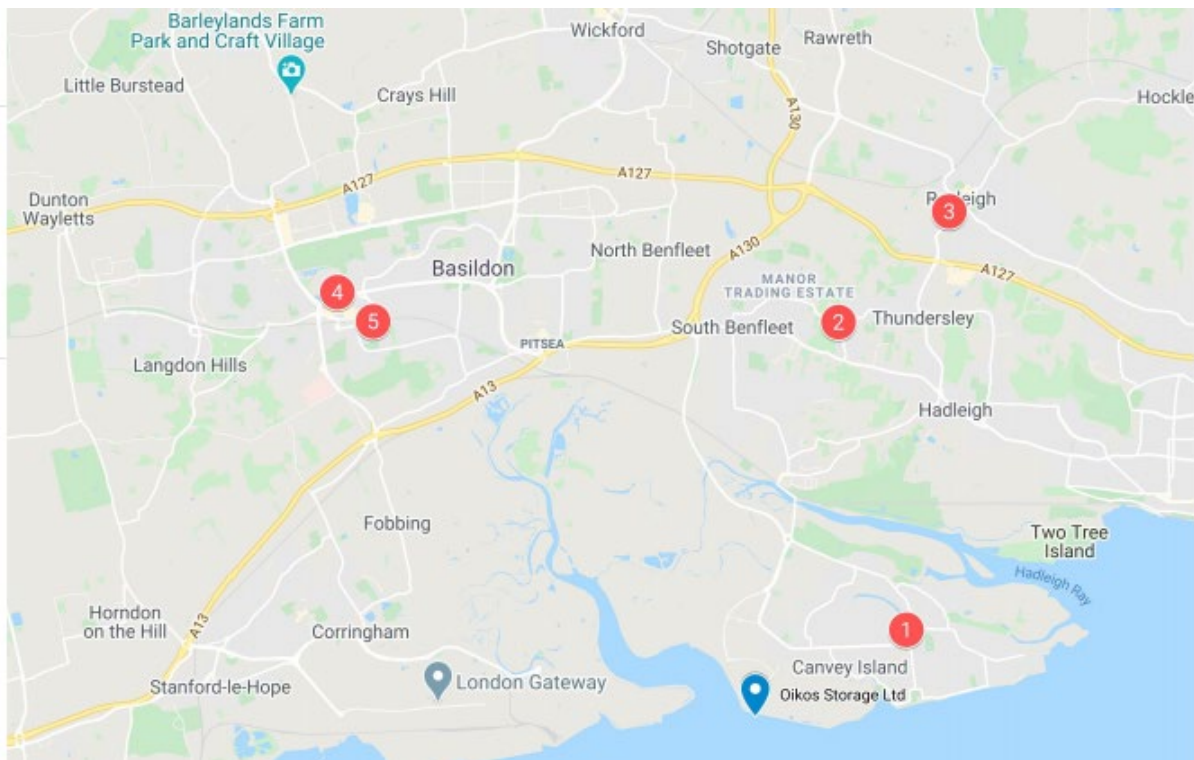
- collections,
- clearance through plant, and
- delivery.

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 five operational properties within 10 miles of the proposal site, as identified below:

Ref.	BE	Business Entry Name	Address	Distance (miles)
1.	1558	Canvey Island DO/GAR	20-24 Furtherwick Road, Canvey Island, SS8 7AA	2.5
2.	1552	Benfleet DO/GAR	Church Road, Benfleet, SS7 3HA	5.7
3.	1581	Rayleigh DO	160 High Street, Rayleigh, SS6 7BT	7.1
4.	3804	Basildon PAR	Great Oaks, Basildon, SS14 1AH	9.5
5.	1551	Basildon DO/DMB/OFF/VSC/ST	25 East Square, Basildon, SS14 1AA	9.6



In view of Royal Mail's operational assets illustrated above the additional vehicle movements a day (365 during construction and 672 during operation) suggested within the Scoping Report could impact Royal Mail's network. This will be particularly evident along the

main arterial routes at Roscommon Way, Canvey Road (A130) and Canvey Way (A130) and then the A13, of which is used by Canvey Island DO.

### **Royal Mail's comments on the information that should be provided in Oikos Storage Ltd Environmental Statement**

The content of the Traffic and Transportation section of the ES Scoping Report looks adequate to Royal Mail. However, Royal Mail has the following comments / requests:

1. Royal Mail requests that the Traffic and Transportation section of 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 Oikos Storage Ltd 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.

Ref: TR030004-000005  
Date: 7<sup>th</sup> May 2020  
Enquiries to: Georgia Teague  
Tel: 01473265054  
Email: georgia.teague@suffolk.gov.uk



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

Dear Ms Park,

**Environmental Impact Assessment (EIA) Scoping Opinion for Oikos Marine and South Side Development (OMSSD) Project.**

Thank you for consulting Suffolk County Council (SCC) on scoping of the EIA for the above proposal. As a neighbouring county, we appreciate the opportunity to comment at this early stage.

**Flooding, Drainage and Water Management**

With regard to the dredging of the berth pocket at Jetty 2, the concern is where the material will be deposited. If this is offshore, depending on the location, there could be impacts on the Suffolk coastline, with potential changes to waves and tides, and therefore possible impacts to erosion and deposition processes on the shoreline environments of the county.

If the sediment is to be transported and deposited on land, it would be helpful to know the location, as this may have impacts on the highway networks in the region. Further issues regarding transport are highlighted in the section below.

Notwithstanding the above, the physical act of dredging in the Thames as part of this proposed development is unlikely to have impacts in Suffolk, due to the distance to the location of the project.

**Highways and Traffic**

It is noted that highways matters have been considered in the Environmental Statement Scoping Report.

The Scoping Report highlights that severance, driver delay, pedestrian delay, pedestrian amenity, accidents and safety, and hazardous loads have been identified as potential impacts. However, care needs to be taken when using commonly accepted methodology such as GEART / WEBTAG to assess these impacts as they are a rather coarse tool and for

some matters subjective. They may not clearly identify the impacts at specific locations or on specific receptors.

Whilst the distance of the OMSSD Project from Suffolk makes the impact on our highways network unlikely to be severe, it is still important that the following potential impacts on traffic and highways in Suffolk be considered. The Scoping Report states that part of the highways route is the A130 at South Benfleet, which continues to Chelmsford where it connects with the A12. The A12 is the main trunk road between Suffolk and Essex.

There is the potential for congestion at the Copdock Interchange, where the A12 and A14 meet, during both the construction and the operational phases. This junction is already very busy with a heavy traffic flow, and there is the concern that the OMSSD Project could exacerbate conditions, particularly during construction.

It would be helpful if the Scoping Report were to provide further information of the following issues:

- What the journeys are for construction traffic, in particular for the delivery of materials, and if this would have an impact on the transport and highways networks in Suffolk.
- The commute for construction workers and operational workers, and whether they will be travelling from out of the county of Essex.
- The route for export of fuel products, and whether this will include areas of Suffolk, particularly the A12.
- If the dredged sediment is to be deposited on shore, where this would be located, and if the route travelled is through Suffolk, particularly on the A12.

It is noted that scope for air quality impacts have been highlighted in the Scoping Report. The concern is the potential for an impact on air quality and pollution in Suffolk, arising from an increase in vehicular movements during construction and operational phases, if these routes are required to go through the county. This is particularly the case for the transport of materials, the commute of workers during the construction and operational phases, and the resultant increased capacity for export of fuel products following the development of the Oikos site.

## **Socio-Economic**

Whilst a project start date is still to be communicated, which will be important to understand any possible cumulative effects, we are pleased to see the recognition that the project will have wide reaching, significant economic impacts and welcome the proposal that the socio economic assessment will be at a national level. The East is currently seeing an unprecedented amount of large, significant infrastructure construction and we have concerns of the cumulative impact of mitigation and displacement of the construction workforce.

## **Cumulative Impacts**

In the cumulative impacts section, significant projects have been considered within a distance of 5km. The zone of influence, particularly for labour market impact, should take into account a 90-minute travel to work radius for residential workers. However, the zone of influence for a supply chain assessment that would identify local supply for construction and

operation should include a far greater geography ensuring areas such as Ipswich, Lowestoft and Great Yarmouth, where a significant supply chain supporting other energy infrastructure builds, are located. There is the potential for impacts on transport networks, especially if the proposed timescales are similar to that of the projects in Suffolk and these potential cumulative effects should be considered for further assessment. Although there is a distance between Canvey Island to projects within Suffolk, if there is an overlap of timescales, there could be a significant impact on the county and potentially a number of planned and approved projects.

It is also important to that views from Essex County Council, as lead local flood and highway authority, should be fully considered before the scope of the Environmental Statement is confirmed.

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I hope that these comments have been helpful. If there is anything I have raised, that you would like to discuss, please use my contact information at the top of this letter.

Yours sincerely,

Georgia Teague  
Planning Officer  
Growth, Highways and Infrastructure

**From:** [Carr Richard](#)  
**To:** [Oikos Port Development](#)  
**Cc:** [REDACTED]  
**Subject:** FW: TR030004 - Oikos Marine and South Side Development - EIA Scoping Notification and Consultation Reg 11  
**Date:** 16 April 2020 11:22:01  
**Attachments:** [Letter to stat cons Scoping & Reg 11 Notification.doc.docx](#)

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Dear Sir/Madam

Thank you for consulting Transport for London (TfL). I can confirm that due to the distance from London, TfL has no comments to make on either the EIA scoping report or the proposed development

Best wishes  
Richard Carr

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**From:** Spatial Planning  
**Sent:** 09 April 2020 11:03  
**To:** Carr Richard <[RichardCarr@tfl.gov.uk](mailto:RichardCarr@tfl.gov.uk)>  
**Subject:** FW: TR030004 - Oikos Marine and South Side Development - EIA Scoping Notification and Consultation Reg 11

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**From:** Oikos Port Development <[OikosPortDevelopment@planninginspectorate.gov.uk](mailto:OikosPortDevelopment@planninginspectorate.gov.uk)>  
**Sent:** 08 April 2020 17:32  
**Subject:** TR030004 - Oikos Marine and South Side Development - EIA Scoping Notification and Consultation Reg 11

Dear Sir/Madam

Please see attached correspondence on the proposed Oikos Marine and South Side Development.

Please note the deadline for consultation responses is 07 May 2020.

Kind regards,

Emily Park (MSc ACIEEM AIEMA)  
EIA Advisor

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