

# Sea Link

## Volume 6: Environmental Statement

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Health & Wellbeing

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# 11. Health & Wellbeing

## 11.1 Introduction

- 11.1.1 This chapter of the Environmental Statement (ES) presents the assessment of the likely significant health and wellbeing effects that could result from the Proposed Project (as described in **Application Document 6.2.1.4 Part 1 Introduction Chapter 4 Description of the Proposed Project**).
- 11.1.2 This chapter describes the methodology used, the datasets that have informed the assessment, baseline conditions, mitigation measures and the health and wellbeing residual significant effects that could result from the Proposed Project.
- 11.1.3 The Order Limits, which illustrate the boundary of the Proposed Project, are illustrated on **Application Document 2.2.1 Overall Location Plan** and the Suffolk Onshore Scheme Boundary is illustrated on **Application Document 2.2.2 Suffolk Location Plan**.
- 11.1.4 This chapter should be read in conjunction with:
- **Application Document 6.2.1.3 Part 1 Introduction Chapter 3 Main Alternatives Considered;**
  - **Application Document 6.2.1.4 Part 1 Introduction Chapter 4 Description of the Proposed Project;**
  - **Application Document 6.2.1.5 Part 1 Introduction Chapter 5 EIA Approach and Methodology;**
  - **Application Document 6.2.1.6 Part 1 Introduction Chapter 6 Scoping Opinion and EIA Consultation;**
  - **Application Document 6.2.2.1 Part 2 Suffolk Chapter 1 Landscape and Visual;**
  - **Application Document 6.2.2.7 Part 2 Suffolk Chapter 7 Traffic and Transport;**
  - **Application Document 6.2.2.8 Part 2 Suffolk Chapter 8 Air Quality;**
  - **Application Document 6.2.2.9 Part 2 Suffolk Chapter 9 Noise and Vibration;**
  - **Application Document 6.2.2.10 Part 2 Suffolk Chapter 10 Socio-economics, Recreation and Tourism;**
  - **Application Document 6.2.2.12 Part 2 Suffolk Chapter 12 Suffolk Onshore Scheme Intra-Project Cumulative Effects; and**
  - **Application Document 6.2.2.13 Part 2 Suffolk Chapter 13 Suffolk Onshore Scheme Inter-Project Cumulative Effects.**
- 11.1.5 The chapter is supported by the following application documents:
- **Application Document 7.5.3 Outline Onshore Construction Environmental Management Plan (CEMP);**
  - **Application Document 7.5.3.1 CEMP Appendix A Outline Code of Construction Practice;**

- Application Document 7.5.3.2 CEMP Appendix B Register of Environmental Actions and Commitments (REAC);
- Application Document 7.5.9.1 Outline Public Rights of Way Management Plan – Suffolk (PRoWMP); and
- Application Document 7.5.7.1 Outline Landscape and Ecological Management Plan – Suffolk (LEMP).

## 11.2 Regulatory and Planning Context

- 11.2.1 This section sets out the legislation and planning policy that is relevant to the health and wellbeing effects assessment. A full review of compliance with relevant national and local planning policy is provided within **Application Document 7.1 Planning Statement** submitted as part of the application for Development Consent.
- 11.2.2 Policy generally seeks to minimise health and wellbeing effects from development and to avoid significant adverse effects. This applies particularly to ensuring suitable air quality, reducing noise pollution, and promoting access to green spaces for physical activity and mental well-being. Additionally, it includes designing infrastructure that supports safe and active transportation, ensuring easy access to healthcare facilities, and incorporating social and community engagement.

### Legislation

#### The Health and Care Act (2022)

- 11.2.3 The Health and Care Act (HM Government, 2022) was passed in April 2022. This Act sets out health reforms in England and formalises Integrated Care Systems (ICSs) as the means of provision of healthcare services. Each ICS has an Integrated Care Board (ICB); there are 42 ICBs which cover England, National Health Service (NHS) Suffolk and North East Essex ICB is the board which covers the study area relevant to the Suffolk Onshore Scheme.
- 11.2.4 Each ICB has been established with four strategic purposes:
- Improve population health and healthcare;
  - Tackling unequal outcomes and access;
  - Enhance productivity and value for money; and
  - Helping the NHS to support broader social and economic development.

### National Policy

#### National Policy Statements

- 11.2.5 National Policy Statements (NPS) set out the primary policy tests against which the application for a Development Consent Order (DCO) for the Proposed Project would be considered. Table 11.1 and Table 11.2 below provides details of the elements of NPS for Energy (EN-1) (Department for Energy Security and Net Zero, 2023) and NPS for Electricity Networks Infrastructure (EN-5) (Department for Energy Security and Net Zero, 2023) that are relevant to this chapter.

- 11.2.6 NPS EN-3 Renewable Energy Infrastructure has relevance to the Proposed Project, but only in respect of the offshore elements. As such it has no relevance to the assessment presented in this chapter.

**Table 11.1 NPS EN-1 requirements relevant to health and wellbeing**

NPS EN-1 section	Where this is covered in the ES
<p>4.4.1 <i>“Energy infrastructure has the potential to impact on the health and well-being (“health”) of the population. Access to energy is clearly beneficial to society and to our health as a whole. However, the construction of energy infrastructure and the production, distribution and use of energy may have negative impacts on some people’s health.”</i></p>	<p>The potential effects of the Proposed Project on health and wellbeing across all phases (construction, operation, maintenance and decommissioning) is considered in Section 11.9.</p>
<p>4.4.4 <i>“As described in the relevant sections of this NPS and in the technology specific NPSs, where the proposed project has an effect on humans, the ES should assess these effects for each element of the project, identifying any potential adverse health impacts, and identifying measures to avoid, reduce or compensate for these impacts as appropriate.”</i></p>	<p>It is expected that measures relevant to supporting technical assessments will manage risks and ensure effects on health and wellbeing are unlikely / minimised directly. The health and wellbeing assessment thus assesses the likely residual significant effects from the construction, operation, maintenance and decommissioning of the Proposed Project. The relevant assessment chapters include:</p> <ul style="list-style-type: none"> <li>• <b>Application Document 6.2.2.1 Part 2 Suffolk Chapter 1 Landscape and Visual;</b></li> <li>• <b>Application Document 6.2.2.7 Part 2 Suffolk Chapter 7 Traffic and Transport;</b></li> <li>• <b>Application Document 6.2.2.8 Part 2 Suffolk Chapter 8 Air Quality;</b></li> <li>• <b>Application Document 6.2.2.9 Part 2 Suffolk Chapter 9 Noise and Vibration;</b></li> <li>• <b>Application Document 6.2.2.10 Part 2 Suffolk Chapter 10 Socio-economics, Recreation and Tourism;</b></li> <li>• <b>Application Document 6.2.2.4 Part 2 Suffolk Chapter 4 Water Environment; and</b></li> <li>• <b>Application Document 6.2.2.5 Part 2 Suffolk Chapter 5 Geology and Hydrogeology.</b></li> </ul>
<p>4.4.5 <i>“The impacts of more than one development may affect people simultaneously, so the applicant</i></p>	<p>The cumulative impacts associated with the Suffolk Onshore Scheme are</p>

NPS EN-1 section	Where this is covered in the ES
<i>should consider the cumulative impact on health in the ES where appropriate.”</i>	considered within <b>Application Document 6.2.2.12 Part 2 Suffolk Chapter 12 Suffolk Onshore Scheme Intra-Project Cumulative Effects</b> and <b>Application Document 6.2.2.13 Part 2 Suffolk Chapter 13 Suffolk Onshore Scheme Inter-Project Cumulative Effects</b> .
4.4.2 <i>“The direct impacts on health may include increased traffic, air or water pollution, dust, odour, hazardous waste and substances, noise, exposure to radiation, and increases in pests.”</i>	Generally, those aspects of energy infrastructure which are most likely to have a significant and detrimental impact on health are subject to separate regulation (for example for air pollution) which will constitute effective mitigation of them. The health and wellbeing assessment, in Section 11.9, considers the outcomes of other technical chapters relevant to health and wellbeing.
4.4.3 <i>“New energy infrastructure may also affect the composition and size of the local population, and in doing so have indirect health impacts, for example if it in some way affects access to key public services, transport, or the use of open space for recreation and physical activity.”</i>	The health and wellbeing assessment, set out in Section 11.9, considers the impacts of any potential changes to access to key public services, transport or the use of open space for recreation and physical activity.
4.4.7 <i>“Generally, those aspects of energy infrastructure which are most likely to have a significantly detrimental impact on health are subject to separate regulation (for example for air pollution) which will constitute effective mitigation of them, so that it is unlikely that health concerns will either by themselves constitute a reason to refuse consents or require specific mitigation under the Planning Act 2008 (the Act).”</i>	The impact of noise and air quality on health and wellbeing is considered in Section 11.9.
4.4.6 <i>Opportunities should also be taken to mitigate indirect impacts; by promoting local improvements to encourage health and wellbeing, this includes potential impacts on vulnerable groups within society i.e. those groups within society which may be differentially impacted by a development compared to wider society as a whole</i>	A consideration of vulnerable groups within society is covered in this chapter as the health and wellbeing assessment utilises Institute of Environmental Management and Assessment (IEMA) guidance (IEMA, 2022), detailed in Section 11.4 of this chapter. This guidance details the need to consider whether there are any vulnerable sub-populations which would materially change the outcome of an assessment is covered in Section 11.9.
5.12.17 <i>“(part) The Secretary of State should not grant development consent unless they are satisfied that the proposals will meet the following</i>	An assessment of noise and vibration is set out in <b>Application Document 6.2.2.9 Part 2 Suffolk Chapter 9 Noise and</b>

NPS EN-1 section	Where this is covered in the ES
<p><i>aims through the effective management and control of noise;</i></p> <p><i>avoid significant adverse impacts on health and quality of life from noise;</i></p> <p><i>mitigate and minimise other adverse impacts on health and quality of life from noise; and</i></p> <p><i>where possible, contribute to improvements to health and quality of life through the effective management and control of noise.”</i></p>	<p><b>Vibration</b>; this considers any noise effects and discusses mitigation measures to control noise. The assessment of effects for health and wellbeing draws on the noise and vibration chapter and considers all of the points laid out in paragraph 5.11.9 of EN-1.</p>

**Table 11.2 NPS EN-5 requirements relevant to health and wellbeing**

NPS EN-5 section	Where this is covered in the ES
<p>2.10.11 “(part) <i>The Applicant should consider the following factors: [...]</i></p> <p><i>that optimal phasing of high voltage overhead power lines is introduced wherever possible and practicable in accordance with the Code of Practice to minimise effects of EMFs; and</i></p> <p><i>any new advice emerging from the Department of Health and Social Care relating to government policy for EMF exposure guidelines.”</i></p>	<p>As set out in the Scoping Report (AECOM, 2022) (<b>Application Document 6.14 Environmental Scoping Report 2022</b>) and agreed in the Scoping Opinion received from the Secretary of State (SoS) on 1 December 2022 (<b>Application Document 6.15 Scoping Opinion 2022</b>) this matter is scoped out on the basis that the application for development consent will demonstrate the design is compliant with the International Commission on Non-Ionizing Radiation Protection guidelines (1998) in ensuring that the threshold for impacts to humans is not met/exceeded. National Grid will ensure that policies and procedures are in place at the design phase to ensure that all equipment complies with public electric and magnetic fields (EMF) exposure limits.</p>

### National Planning Policy Framework

- 11.2.7 The National Planning Policy Framework (NPPF) as revised in December 2024 (Department for Levelling Up, Housing, and Communities, 2024) sets out national planning policies that reflect priorities of the Government for operation of the planning system and the economic, social, and environmental aspects of the development and use of land. The NPPF has a strong emphasis on sustainable development, with a presumption in favour of such development. The NPPF has the potential to be considered important and relevant to the SoS’ consideration of the Proposed Project.
- 11.2.8 Table 11.3 below provides details of the elements of the NPPF that are relevant to this chapter, and how and where they are covered in the ES.



**Table 11.3 NPPF requirements relevant to health and community**

NPPF section	Where this is covered in the ES
<p>Paragraph 8 (b)“[...] a social objective – to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering well-designed beautiful and safe places, with accessible services and open spaces that reflect current and future needs and support communities’ health, social and cultural well-being”</p>	<p>The impact of the Suffolk Onshore Scheme on access to social infrastructure, open space, leisure and play and social cohesion and community identity is considered in Section 11.9.</p>
<p>Paragraph 96 ‘c’“[...] enable and support healthy lives, through both promoting good health and preventing ill-health, especially where this would address identified local health and well-being needs and reduce health inequalities between the most and least deprived communities – for example through the provision of safe and accessible green infrastructure, sports facilities, local shops, access to healthier food, allotments and layouts that encourage walking and cycling.” .”</p>	<p>The impact of the Suffolk Onshore Scheme on enabling and supporting healthy lifestyles is considered in Section 11.9. This includes assessing the Suffolk Onshore Scheme's impacts on factors such as access to healthcare, air quality, noise and vibration, transport and access, open space, and social cohesion and community identity, ensuring that proposed developments align with the goal of fostering healthy and inclusive communities.</p>
<p>Paragraph 98 “[...] take into account and support the delivery of local strategies to improve health, social and cultural well-being for all sections of the community;”</p>	<p>Local strategies and policies regarding social and cultural wellbeing are included in Local Planning Policy within this section and provide context for the assessment of health and wellbeing effects set out in Section 11.9. This includes assessing the Suffolk Onshore Scheme's impacts on factors such as access to healthcare, air quality, noise and vibration, transport and access, open space, and social cohesion and community identity, ensuring that proposed developments align with the goal of fostering social and cultural wellbeing.</p>
<p>Paragraph 103 “Access to a network of high-quality open spaces and opportunities for sport and physical activity is important for the health and well-being of communities, and can deliver wider benefits for nature and support efforts to address climate change.”</p>	<p>Access to open space and active travel networks are considered in Section 11.9.</p>
<p>Paragraph 135 “[...] create places that are safe, inclusive and accessible and which promote health</p>	<p>The impact of the Suffolk Onshore Scheme on creating safe, inclusive, and accessible communities, as well</p>

NPPF section	Where this is covered in the ES
<p><i>and well-being, with a high standard of amenity for existing and future users; and where crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion and resilience.”</i></p>	<p>as impacts on quality of life and community cohesion are considered in Section 11.9.</p>
<p>Paragraph 198 “[...] <i>Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should:</i></p> <ul style="list-style-type: none"> <li><i>(a) mitigate and reduce to a minimum potential adverse impacts resulting from noise from new development – and avoid noise giving rise to significant adverse impacts on health and the quality of life;</i></li> <li><i>(b) identify and protect tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason; and</i></li> <li><i>(c) limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.</i></li> </ul>	<p>An assessment for health and wellbeing is set out in Section 11.9 of this chapter. A cumulative effects assessment is undertaken and presented within <b>Application Document 6.2.2.12 Part 2 Suffolk Chapter 12 Suffolk Onshore Scheme Intra-Project Cumulative Effects</b> and <b>Application Document 6.2.2.13 Part 2 Suffolk Chapter 13 Suffolk Onshore Scheme Inter-Project Cumulative Effects</b>. An assessment of noise and vibration is set out in <b>Application Document 6.2.2.9 Part 2 Suffolk Chapter 9 Noise and Vibration</b>. An assessment of landscape and visual impact is set out in <b>Application Document 6.2.2.1 Part 2 Suffolk Chapter 1 Landscape and Visual</b>.</p>
<p>Paragraph 223 (f) “[...] <i>set out criteria or requirements to ensure that permitted and proposed operations do not have unacceptable adverse impacts on the natural and historic environment or human health, taking into account the cumulative effects of multiple impacts from individual sites and/or a number of sites in a locality.</i>”</p>	<p>An assessment for health and wellbeing is set out in Section 11.9 of this chapter. A cumulative effects assessment is undertaken and presented within <b>Application Document 6.2.2.13 Part 2 Suffolk Chapter 13 Suffolk Onshore Scheme Inter-Project Cumulative Effects</b>.</p>
<p>Paragraph 224 (b) “[...] <i>ensure that there are no unacceptable adverse impacts on the natural and historic environment, human health or aviation safety, and take into account the cumulative effect of multiple impacts from individual sites and/or from a number of sites in a locality;</i>”</p>	<p>An assessment for health and wellbeing is set out in Section 11.9 of this chapter. A cumulative effects assessment is undertaken and presented within <b>Application Document 6.2.2.13 Part 2 Suffolk Chapter 13 Suffolk Onshore Scheme Inter-Project Cumulative Effects</b>.</p>

## National Planning Practice Guidance

### National Planning Practice Guidance

- 11.2.9 Accompanying the NPPF, the National Planning Practice Guidance ('NPPG') (Department for Levelling Up, Housing and Communities, 2024) provides guidance on planning and provides a web-based resource in support of the NPPF. The NPPG offers guidance on health and wellbeing in planning and planning obligations, and covers:
- The role of health and wellbeing in planning; and
  - The links between health and wellbeing and planning.
- 11.2.10 The NPPG suggests that local authority planners should consult with the Director of Public Health on mitigation measures for any planning applications that are likely to have an impact on the health and wellbeing of the local population or particular groups.
- 11.2.11 The NPPG states that: *“strategic-policy-making authorities can work with public health leads and health organisations to understand and take account of the current and projected health status and needs of the local population, including the quality and quantity of, and accessibility to, healthcare and the effect any planned growth may have on this. Authorities will also need to assess the quality and quantity of, and accessibility to, green infrastructure, education, sports, recreation and places of worship including expected future changes, and any information about relevant barriers to improving health and well-being outcomes”* (See 'Plan-Making' Guidance, Paragraph 46).
- 11.2.12 The NPPG for health and safe communities covers the role of positive planning on healthier communities and how the design and use of the built and natural environments, including green infrastructure, are major determinants of health and wellbeing. The guidance states that *“planning and health need to be considered together in two ways: in terms of creating environments that support and encourage healthy lifestyles, and in terms of identifying and securing the facilities needed for primary, secondary and tertiary care, and the wider health and care system”*.
- 11.2.13 The NPPG for open space, sports and recreation facilities, Public Rights of Way (PRoW) and local green space provides additional guidance on those designation and how they should be taken into consideration in planning. The guidance mentions that planning should consider proposals that may affect existing open space as they provide health and recreational benefits to people living and working nearby.

## Local Planning Policy

- 11.2.14 The Suffolk Onshore Scheme lies (refer to **Application Document 2.2.2 Suffolk Location Plan**) within the jurisdiction of Suffolk County Council (SCC). County and local planning guidance which is relevant to a study of health and wellbeing, and provides context for and informs the assessment of effects in this chapter are as follows:
- Leiston Neighbourhood Plan 2015-2029 (Leiston Town Council, 2017);
  - Saxmundham Neighbourhood Plan (2022-2036) (East Suffolk Council, 2023);
  - East Suffolk Cycling and Walking Strategy (2022) (East Suffolk Council, 2020);
  - Suffolk County Council's (SCC) Energy and Climate Adaptive Infrastructure Policy (2023) (Suffolk County Council, 2023); and
  - Suffolk County Council's (SCC) Community Engagement and Wellbeing Supplementary Guidance Document (2024) (Suffolk County Council, 2024).

## Local Plans

- 11.2.15 The Suffolk Onshore Scheme (refer to **Application Document 2.2.2 Suffolk Location Plan**) lies within the jurisdiction of ESC. Local planning policy for ESC consists of two parts; the Suffolk Coastal Local Plan (East Suffolk Council, 2020) and the Waveney Local Plan (East Suffolk Council, 2019).
- 11.2.16 The Suffolk Onshore Scheme lies within the boundary of the Suffolk Coastal Local Plan (adopted September 2020). Local Plan policies which are relevant to health and community assessment matters and have informed the health quality assessment are detailed in Table 11.4.

**Table 11.4 Local planning policies relevant to health and wellbeing – Suffolk Coastal Local Plan**

Suffolk Coastal Local Plan - Policy	Where this is covered in the ES
<b>SCLP3.4: Proposals for Major Energy Infrastructure Projects</b> <i>Policy requirements which address health and wellbeing with regard to mitigating impacts of proposals for Major Energy Infrastructure Projects include: Appropriate packages of local community benefit to mitigate the impacts of disturbance experienced by the local community for hosting major infrastructure projects; and, community safety and cohesion impacts.</i>	The impacts of the Suffolk Onshore Scheme with regards to community safety and cohesion impacts is considered in Section 11.9.
<b>SCLP8.2: Open Space</b> <i>This policy relates to the council supporting the provision of open space and recreational facilities and notes the few exceptional circumstances where loss of provision will be permitted.</i>	The impacts of the Suffolk Onshore Scheme on open space is considered in Section 11.9.

## Leiston Neighbourhood Plan 2015-2029 (Leiston Town Council, 2017)

- 11.2.17 The Leiston Neighbourhood Plan was published in 2017 and represents part of the development plan for the parish over the period of 2015 to 2029. The plan was formally adopted as part of the District Council's Local Plan in 2017.
- 11.2.18 The objectives of most relevance to the assessment of health and wellbeing include:
- Objective 3 - Improve the community infrastructure of Leiston in order to provide more places for people, young and old, to undertake their leisure pursuits; and
  - Objective 5 - Improve movement by non-car modes, principally walking and cycling, whilst ensuring that all new residential properties have levels of parking that are appropriate to Leiston's role as a rural settlement and parish.

## Saxmundham Neighbourhood Plan (2022-2036) (East Suffolk Council, 2023)

- 11.2.19 The Saxmundham Neighbourhood Plan was published in June 2023 and represents part of the development plan for determining planning applications in Saxmundham over



the period of 2022 to 2036, consistent with the Local Plan. A key part of the vision for Saxmundham (to 2036) is “a safe and healthy town”, which is of relevance to the topic of health and wellbeing.

11.2.20 Area wide objectives of most relevance to the assessment of health and wellbeing include:

- Objective 2: To secure for the community of Saxmundham a full range of physical and community infrastructure to meet the growing needs of the town and its environs;
- Objective 3: To improve transport and safe accessibility for the people of Saxmundham by foot, bicycle, mobility scooter and public or private transport, resulting in environmental and health benefits; and
- Objective 6: To protect and enhance the conservation area, the town’s heritage, green spaces, natural features and rural setting, and to address the challenges of climate change.

11.2.21 Saxmundham Neighbourhood Plan policies of relevance to health and wellbeing include:

- SAX4: New community facilities;
- SAX5: Improving connectivity;
- SAX6: Public rights of way;
- SAX13: Protection and enhancement of natural assets;
- SAX14: Community gardens and allotments; and
- SAX15: Protection of existing Local Green Spaces.

### **East Suffolk Cycling and Walking Strategy (2022) (East Suffolk Council, 2020)**

11.2.22 This strategy replaces the Waveney Cycle Strategy (2016) and serves as the Local Cycling and Walking Infrastructure Plan (LCWIP) for East Suffolk Council (ESC). The strategy’s purpose is “*to create safe, coherent, direct, comfortable, and attractive cycling, walking and wheeling environments that lead to improvements in health and wellbeing, facilitate greater social interaction and play, encourage more environmentally sustainable lifestyles, reduce road congestion, and support economic growth*”.

11.2.23 The four types of recommendations relate to key corridors; leisure routes; local plan site allocation recommendations; and community recommendations. Key corridors are concentrated in the north and the south of the district, in the Lowestoft area and the Ipswich and Felixstowe areas, meaning they avoid any of the areas near the Suffolk Onshore Scheme.

### **Suffolk County Council’s (SCC) Energy and Climate Adaptive Infrastructure Policy (2023) (Suffolk County Council, 2023)**

11.2.24 SCC’s Energy and Climate Adaptive Infrastructure Policy was adopted in May 2023. The policy outlines how Suffolk has “*specific natural and geographic advantages which make it very attractive for locating offshore wind and interconnection projects*.” The policy explains how SCC is working to minimise and mitigate any adverse impacts of such infrastructure on local communities and the environment, which includes resident’s health and wellbeing.

- 11.2.25 Overall, *"the purpose of this policy is to outline how, in principle, the Council will engage and influence other parties to ensure adverse impacts to our communities are understood and addressed by future decisions."*

### **Suffolk County Council's (SCC) Community Engagement and Wellbeing Supplementary Guidance Document (2024) (Suffolk County Council, 2024)**

- 11.2.26 SCC published a Community Engagement and Wellbeing Supplementary Guidance Document in September 2024 to support the Energy and Climate Adaptive Infrastructure Policy adopted in May 2023. The guidance outlines in principle how SCC expects project promoters to engage with the topic of health and wellbeing throughout the Nationally Significant Infrastructure Planning (NSIP) process.
- 11.2.27 The Supplementary Guidance Document outlines in principle how the Council expects project promoters to:
- *"Secure effective dialogue with communities about change, through their engagement with those who are expected to host NSIP proposals, to ensure a fair process and to protect community wellbeing;*
  - *Ensure assessment of community wellbeing, as part of the Environmental Impact Assessment; and*
  - *Secure and safeguard community wellbeing, through effective and robust mitigation measures, that minimise or eliminate the adverse impacts of pre-application engagement, consulting, and construction".*
- 11.2.28 The Supplementary Guidance Document outlines that the Council acknowledges that the topic of community wellbeing, and the impact of infrastructure projects on community wellbeing, is a new and evolving issue and that will require recurrent review.

## **11.3 Scoping Opinion and Consultation**

### **Scoping**

- 11.3.1 A Scoping Report for the Proposed Project was issued to the Planning Inspectorate (PINS) on 24 October 2022 (**Application Document 6.14 Environmental Scoping Report 2022**) and a Scoping Opinion was received from the SoS on 1 December 2022 (**Application Document 6.15 Scoping Opinion**). Table 11.5 sets out the comments raised in the Scoping Opinion and how these have been addressed in this ES. The Scoping Opinion takes account of responses from prescribed consultees as appropriate. **Application Document 6.3.1.6.A Appendix 1.6.A Response to Scoping Opinion** provides responses to the comments made by the prescribed consultees at scoping stage and how each comment has been considered.

**Table 11.5 Comments raised in the Scoping Opinion**

<b>ID</b>	<b>Inspectorate's comments</b>	<b>Response</b>
3.11.1	<i>All phases –EMF</i> The Inspectorate agrees this matter can be scoped out on the	The inspectorate's response has been noted.

ID	Inspectorate's comments	Response
	basis that the ES demonstrates the design is compliant with the International Commission on Non-Ionizing Radiation Protection guidelines (1998) in ensuring that the threshold for impacts to humans is not met/exceeded.	
3.11.2	<p><i>Census data</i></p> <p>Where new census data from 2021 is available, this should be used to inform baseline data and the ES assessment.</p>	New census data from 2021 is used throughout Section 11.7 where relevant. Alternative forms of data are only used when census 2021 data is not available for a specific indicator or geography.
3.11.3	<p><i>Study area</i></p> <p>The study area for impacts from severance vary between 1 km and 500 m however, the Inspectorate considers severance can be caused by changes in traffic movements and type. The assessment of potential severance impacts on receptors from changes in the road network from the Proposed Development should consider the entirety of the affected road network rather than an arbitrary buffer zone.</p>	As detailed in <b>Application Document 6.2.2.7 Part 2 Suffolk Chapter 7 Traffic and Transport</b> , the study area has now been agreed with SCC Highways and based on the extent of the affected road network.
3.11.4	<p><i>Judgement of significance</i></p> <p>Scoping Report paragraph 2.12.7.12 states that the proposed guidance does not provide a methodology for assessing the significance of effects. The ES should describe the methodology for determining the significance of effects and report the significance of effects on human health.</p> <p>The Applicants attention is directed to the response of UK Health Security Agency at Appendix 2 to this Opinion with regards to this matter.</p>	The methodology for determining the significance of effects is laid out in Section 11.4. The methodology follows a best practice approach, including in utilising the new IEMA guidance for determining significance for human health in EIA (IEMA, 2022), which was published following the issue of the Scoping Report in October 2022.

## Statutory Consultation

- 11.3.2 Statutory Consultation for the Proposed Project took place between 24 October and 18 December 2023. A further Targeted Consultation exercise on the main changes to the Proposed Project introduced after the 2023 statutory consultation, was undertaken between 8 July and 11 August 2024. In addition, a project update and a local engagement exercise took place between 22 November 2024 and 12 January 2025, focusing on design amendments made following Targeted Consultation. A summary of relevant feedback received during statutory consultation relating to water environment is provided in subsequent paragraphs below. Further details on how consultation responses have informed the assessment can be found **Application Document 5.1 Consultation Report** and **Application Document 5.1.9 Appendix H Summary 2023 Response**.
- 11.3.3 Feedback from the prescribed consultees included the following issues:
- *PRoW and Recreational Routes* - Feedback has been noted considering the local importance of PRoW in Suffolk, calling for greater consideration of this network and the qualitative sensitivity of receptors. Concern has also been raised surrounding the availability of alternative routes during the construction phase of the Proposed Project. Impacts on PRoW are considered throughout the ES, across the **Application Document 6.2.2.10 Part 2 Suffolk Chapter 10 Socio-economics, Recreation and Tourism** and **Application Document 6.2.2.7 Part 2 Suffolk Chapter 7 Traffic and Transport** chapters, as well as this health and wellbeing assessment (across relevant determinants in this Chapter). **Application Document 7.5.9.1 Outline Public Rights of Way Management Plan - Suffolk** has also been produced for the application which deals with closures and diversions to PRoW routes; and
  - *Assessment Guidance* – Feedback has been noted concerning the use of the NHS Healthy Urban Development Unit (HUDU) Rapid Health Impact Assessment Tool (NHS Healthy Urban Development Unit (HUDU), 2019) due to the fact Suffolk is a predominantly rural county. The main guidance used to inform the health and wellbeing assessment in Section 11.9 are IEMA released guidance on *Effective Scoping of Human Health in Environmental Impact Assessment (EIA)* (IEMA, 2022) and *Determining Significance for Human Health in EIA* (IEMA, 2022) and this has been agreed with SCC and ESC. HUDU is mentioned since it was used at scoping stage, which was produced prior to the release of the IEMA guidance in November 2022. HUDU is only used as a supplementary tool, in line with the best practice approach used in DCO scheme assessments and this ES chapter notes the importance of this tool being localised for specific use. Section 11.4 of this chapter outlines in further detail the guidance used to inform the health and wellbeing assessment in Section 11.9.
  - *Acknowledging Additional Planning Guidance and Resources* – Feedback has been noted to consider SCC's Suffolk in 20 years resource (Suffolk County Council, 2022). This resource has been considered and referred to in Section 11.7. Feedback has also been noted to consider SCC Green Access Strategy 2020-2030 (Suffolk County Council, 2024). This strategy has been considered in **Application Document 6.2.2.10 Part 2 Suffolk Chapter 10 Socio-economics, Recreation and Tourism** under the sensitivity and magnitude criteria for the PRoW assessment. It is noted that the sensitivity and magnitude criteria for PRoW assessment broadly aligns with the sensitivity and magnitude criteria within SCC's Public Rights of Way and Green Access SPG.



- *Employment and Income Assessment* – Feedback has been noted concerning the fact that the health and wellbeing assessment does not account for impacts to the existing local economy, but only additional jobs relating to the Proposed Project. The employment and income assessment in Section 11.9 considers the potential health and wellbeing impacts of employment-related opportunities directly related to the Proposed Project including for local people. **Application Document 6.2.2.10 Part 2 Suffolk Chapter 10 Socio-economics, Recreation and Tourism** covers an assessment of economic impacts, including the generation of direct and indirect employment opportunities; and consideration of impacts on the local economy from Gross Value Added (GVA) generation associated with the Suffolk Onshore Scheme.

## Further Engagement

- 11.3.4 To date, three health and wellbeing thematic meetings have been held with SCC and ESC since the Preliminary Environmental Information Report (PEIR): one meeting in October 2023, one in February 2024, and one in November 2024. The meetings primarily focused on discussing points raised by the local planning authorities in the Statutory Consultation and provided the opportunity to discuss key aspects of local context to help inform the health and wellbeing assessment for the ES.

## Summary of Scope of Assessment

- 11.3.5 This section details what aspects have been scoped in and scoped out of the assessment through the scoping process and consultation with stakeholders.

### Aspects scoped into the assessment

- 11.3.6 The assessment in this chapter follows IEMA guidance to assign significance to health effects as it is the recognised best practice approach for the assessment of health and wellbeing. Therefore, it is deemed appropriate to use IEMA determinants and terminology. The health determinants scoped into the study are covered under the following assessments presented in Section 11.9:

- Access to healthcare services and other social infrastructure;
- Access to open space, leisure and play;
- Air quality;
- Noise and vibration;
- Transport modes, access, connections, and physical activity;
- Employment and income; and
- Social Cohesion and Community identity.

- 11.3.7 The impacts of the Proposed Project on these determinants of health and wellbeing have been assessed using professional judgement, best practice and drawing on other assessments within the ES. The relevant assessment chapters include:

- **Application Document 6.2.2.1 Part 2 Suffolk Chapter 1 Landscape and Visual;**
- **Application Document 6.2.2.7 Part 2 Suffolk Chapter 7 Traffic and Transport;**
- **Application Document 6.2.2.8 Part 2 Suffolk Chapter 8 Air Quality;**

- **Application Document 6.2.2.9 Part 2 Suffolk Chapter 9 Noise and Vibration;** and
- **Application Document 6.2.2.10 Part 2 Suffolk Chapter 10 Socio-economics, Recreation and Tourism.**

- 11.3.8 Assessments within other relevant technical chapters have been reviewed, and where potential health effects are identified these have been considered in the health and wellbeing assessment as relevant. These are:
- **Application Document 6.2.2.4 Part 2 Suffolk Chapter 4 Water Environment;** and
  - **Application Document 6.2.2.5 Part 2 Suffolk Chapter 5 Geology and Hydrogeology.**
- 11.3.9 It is expected that measures relevant to these technical assessments will manage risks and ensure effects on health and wellbeing are unlikely.
- 11.3.10 Table 11.6 sets out a summary of the health and wellbeing determinants scoped into this assessment, and the source, pathway, and receptor links relevant to each.

**Table 11.6 Health determinants: Source-Pathway-Receptor links**

<b>Determinant</b>	<b>Source</b>	<b>Pathway</b>	<b>Receptor</b>	<b>Proposed Project Phase</b>
<b>Access to healthcare and other social infrastructure</b>	Potential changes to access to healthcare arising from an influx of workers to the local area	Potential adverse impact on access to health services due to effects of levels of provision resulting from additional workforce in the local area	Human receptors who use local healthcare services	Construction / decommissioning
	Potential changes to access to healthcare arising from temporary or permanent closures, diversions or amenity impacts on PRow or impacts on the local road network	Potential adverse impact on access to health services which could impact human health	Human receptors living within local communities	Construction / decommissioning

<b>Determinant</b>	<b>Source</b>	<b>Pathway</b>	<b>Receptor</b>	<b>Proposed Project Phase</b>
	Potential changes to demand for social infrastructure arising from an influx of workers to the local area, and potential increased traffic reducing accessibility to social infrastructure	Potential adverse impact on access to social infrastructure which could impact human health	Human receptors who use local social infrastructure	Construction / decommissioning
<b>Access to open space, leisure and play</b>	Potential changes to community connectivity and wider community services including open space arising from temporary or permanent closures, diversions or amenity impacts on PRow or impacts on the local road network	Potential adverse impacts on access to open spaces, which could impact human health	Human receptors living within local communities	Construction / decommissioning, operation, maintenance
<b>Air quality</b>	Potential temporary changes in local air quality which could impact on health and wellbeing	Potential adverse human health impacts arising from increased exposure to dust and particulate matter emissions arising from the Proposed Project	Human receptors likely to be at risk of possible direct and indirect air quality impacts from the Proposed Project	Construction / decommissioning, operation, maintenance
<b>Noise and vibration</b>	Potential temporary or permanent changes in noise levels arising from the Proposed Project	Potential adverse health and wellbeing impacts arising from increased exposure to noise due to the Proposed Project	Human receptors likely to be at risk of possible direct and indirect noise impacts from the Proposed Project	Construction / decommissioning, operation, maintenance

<b>Determinant</b>	<b>Source</b>	<b>Pathway</b>	<b>Receptor</b>	<b>Proposed Project Phase</b>
<b>Transport modes, access, connections and physical activity</b>	Potential changes to community connectivity and accessibility, including active travel networks, arising from temporary or permanent closures, diversions or amenity impacts on PRow and other active travel networks	Potential adverse impacts on journeys made by active travel modes, which could impact health and wellbeing	Human receptors living within local communities	Construction / decommissioning, operation, maintenance
<b>Employment and income</b>	Potential temporary or permanent increase in employment opportunities, directly related to the Proposed Project	Potential beneficial economic impacts arising from employment, training and income opportunities for those working on the Proposed Project, which could impact human health	Human receptors who could potentially benefit from employment and training opportunities, directly related to the Proposed Project	Construction / decommissioning
<b>Social Cohesion and Community identity</b>	Potential temporary or permanent changes to social cohesion and community identity (including potential changes to landscape and visual amenity)	Potential adverse impacts on health and wellbeing resulting from disruption to community connectivity and potential changes to landscape and visual amenity, which could impact mental health	Human receptors in communities near to the Proposed Project	Construction / decommissioning, operation, maintenance

### **Aspects scoped out of the assessment**

- 11.3.11 Consideration of the Code of Practice on the effects of EMF and any new EMF exposure guidelines from the Department of Health and Social Care, has been scoped



out. The Planning Inspectorate agreed that this matter can be scoped out on the basis that the design is compliant with the International Commission on Non-Ionizing Radiation Protections guidelines (1998).

## 11.4 Approach and Methodology

- 11.4.1 **Application Document 6.2.1.5 Part 1 Introduction Chapter 5 EIA Approach and Methodology** sets out the overarching approach which has been used in developing the environmental assessment. This section describes the technical methods used to determine the baseline conditions, sensitivity of the receptors and magnitude of effects and sets out the significance criteria that have been used for the health and wellbeing assessment.

### Guidance Specific to the Health and Wellbeing Assessment

- 11.4.2 The health and wellbeing assessment has been carried out in accordance with the following good practice guidance documents:
- IEMA Guide to Effective Scoping of Human Health in EIA (2022);
  - IEMA Guide for Determining Significance for Human Health in EIA (2022);
  - NHS Healthy Urban Development Unit (HUDU) Rapid Health Impact Assessment HIA Assessment Tool (2019);
  - Public Health England (PHE) Spatial Planning for Health: An evidence resource for planning and designing healthier places (2017);
  - PHE Strategy 2020-2025;
  - The Marmot Review: Fair Society, Healthy Lives (2010);
  - Health Equity in England 10 Years On (2020);
  - Build Back Fairer: The Covid-19 Marmot Review (2020); and
  - NHS Long Term Plan (2019).

#### **IEMA Guide to Effective Scoping of Human Health in EIA**

- 11.4.3 The IEMA Guide to Effective Scoping of Human Health in EIA (IEMA, 2022) was published in November 2022.
- 11.4.4 The guide provides information on determining the relevant health issues that should be included in EIAs by those responsible for the commissioning, conducting, or reviewing or EIAs. The guide emphasises the need to take a holistic approach to health, considering physical, mental and social dimensions of health, as well as health inequalities.

#### **IEMA Guide for Determining Significance for Human Health in EIA;**

- 11.4.5 The IEMA guidance on Determining Significance for Human Health in Environmental Impact Assessment (IEMA, 2022) was published in November 2022.
- 11.4.6 The guide presents a framework that should be used by EIA practitioners to identify, describe, and assess the direct and indirect significant effects of a proposed development on human health. It defines significance as informed expert judgement of

the importance, desirability, or acceptability of a change, which must be evidence-based and explained within context.

- 11.4.7 In particular, the guidance highlights the need to consider the significance of human health effects in relation to vulnerable groups.

### **NHS HUDU Rapid Health Impact Assessment Tool (2019)**

- 11.4.8 NHS England developed the HUDU Rapid Health Impact Assessment (HIA) Toolkit (NHS Healthy Urban Development Unit (HUDU), 2019), which identifies eleven broad determinants of health that are likely to be influenced by specific development proposals and can be influenced through design and management measures. It provides an assessment checklist against which the likely impacts of new developments can be assessed.

### **PHE Spatial Planning for Health: An evidence resource for planning and designing healthier places (2017)**

- 11.4.9 In 2017, PHE published Spatial Planning for Health: An evidence resource for designing healthier places (Public Health England, 2017).
- 11.4.10 The review provided public health planners and local communities with evidence informed principles for designing healthy places. The review addresses the relationship which exists between public health and the built environment. It identifies five aspects of the built and natural environment which can be influenced by local planning policy:
- neighbourhood design;
  - housing;
  - healthier food;
  - natural and sustainable environment; and
  - transport.
- 11.4.11 For each aspect identified above, the review provides the evidence base underpinning why they are important determinants of public health. It also sets out principles which public health professionals and planners should follow to ensure healthier places.
- 11.4.12 The two aspects deemed most relevant to the Proposed Project are ‘neighbourhood design’ and ‘natural and sustainable environment’. For ‘neighbourhood design’, the review states that *“neighbourhoods are places where people live, work, and play and have a sense of belonging. The design of a neighbourhood can contribute to the health and well-being of the people living there. Several aspects of neighbourhood design (walkability and mixed land use) can also maximise opportunities for social engagement and active travel. Neighbourhood design can impact on our day-to-day decisions and therefore have a significant role in shaping our health behaviours”* (Public Health England, 2017).
- 11.4.13 For the ‘natural and sustainable environment’, the review states *“there is a very significant and strong body of evidence linking contact and exposure to the natural environment with improved health and wellbeing. For the purpose of this review, the natural and sustainable environment is comprised of neighbourhood ecosystems and the resulting co-benefits between the environment and health. Protecting the natural environment is essential to sustaining human civilization”* (Public Health England, 2017).

## **PHE Strategy 2020-2025 (2020)**

- 11.4.14 The PHE Strategy 2020 to 2025 (Public Health England, 2020) was published in 2020 and states PHE's objectives over the five-year period. Note, in 2021 PHE was replaced by the UK Health Security Agency and Office for Health Improvement and Disparities.
- 11.4.15 Relevant priorities within the strategy include:
- healthier diets, healthier weights: help make the healthy choice the easy choice to improve diets and rates of childhood obesity;
  - cleaner air: develop and share advice on how best to reduce air pollution levels and people's exposure to polluted air; and
  - better mental health: promote good mental health and contribute to the prevention of mental illness.

## **The Marmot Review: Fair Society, Healthy Lives (2010)**

- 11.4.16 The Marmot Review (The Marmot Review, 2010) argued that serious avoidable health inequalities exist across England and shows these inequalities to be determined by a wide range of socio-economic factors.
- 11.4.17 The Review identifies policy objectives including the following of relevance to the Proposed Project:
- create fair employment and good work for all;
  - ensure a healthy standard of living for all;
  - create and develop healthy and sustainable places and communities; and
  - strengthen the role and impact of ill health prevention.

## **Health Equity in England 10 Years On (2020)**

- 11.4.18 Ten years following the original review, the follow up Marmot Review, Health Equity 10 Years On (Institute of Health Equity , 2020) was published in February 2020.
- 11.4.19 The report highlighted the growth in health inequality over the preceding 10 years, especially for those living in more deprived districts and regions. The report calls upon the Government to make health and wellbeing a central policy goal which will in turn create a better society, with better health and health equity.

## **Build Back Fairer: The Covid-19 Marmot Review (2020)**

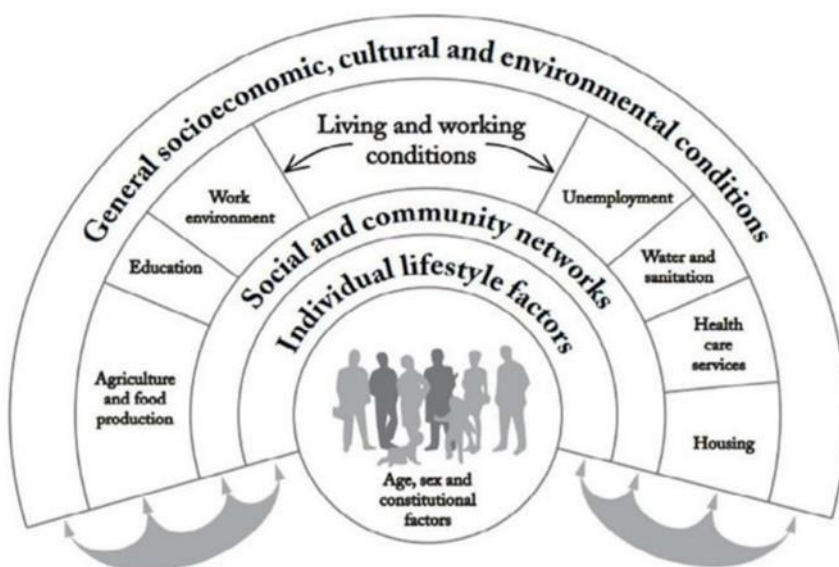
- 11.4.20 An update to the Marmot Review 10 Years On report, Build Back Fairer: The Covid-19 Marmot Review (Institute of Health Equity , 2020) was published in December 2020 to investigate how the pandemic has affected health inequalities in England. The Covid-19 pandemic exposed and amplified some of the inequalities highlighted in the Marmot Review 10 Years On report.

## **NHS Long Term Plan (2019)**

- 11.4.21 The NHS Long Term Plan 2019 (Department of Health and Social Care, 2019) sets out a ten-year programme of phased improvements to the NHS. The plan outlines how the NHS will attempt to reduce health inequalities through wider preventative action in deprived areas and improved integrated community-based care systems. This includes

funding support to programmes which help to reduce obesity and air pollution in vulnerable communities.

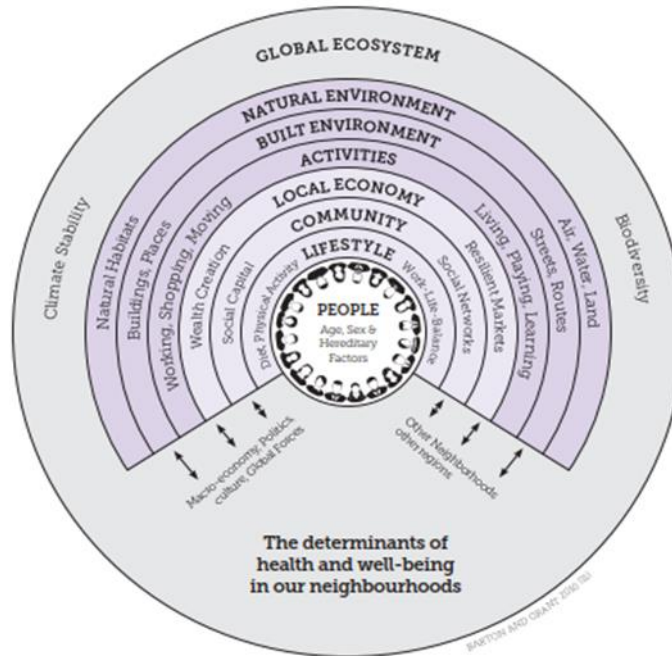
- 11.4.22 The IEMA guidance, *Determining Significance for Human Health In Environmental Impact Assessment*, forms the basis of the approach adopted to assess impacts on human health and wellbeing in this chapter. This guidance was published in November 2022, following the writing of the Scoping Report (**Application Document 6.14 Environmental Scoping Report 2022**) for the Proposed Project, but is considered throughout the health and wellbeing assessment as this is deemed the most up to date, best practice approach.
- 11.4.23 In addition, consideration has been given to NHS England's HUDU Rapid Health Impact Assessment (HIA) Toolkit 2019 to help with the identification of relevant health determinants and mapping of health pathways (the route through which changes to health determinants would be expected to lead to changes in health outcomes).
- 11.4.24 The World Health Organisation (WHO) Europe defines health as a *"state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity"* (World Health Organisation, 1946). Public health therefore encompasses general wellbeing, not just the absence of illness.
- 11.4.25 The health and wellbeing of individuals is determined by a broad range of individual constitutional and behavioural factors (or "determinants"), as well as broader environmental, social and economic factors. Some factors are direct and obvious, others are indirect.
- 11.4.26 Dahlgren and Whitehead's model of the main determinants of health (Dahlgren, G & Whitehead, M, 2021) illustrates the breadth of possible influences on health, as shown in Plate 11.1. At the centre of the illustration are factors that are largely fixed, including individual age, sex, constitutional and genetic factors. Outside this are factors generally described as the wider or broader determinants of health. The model emphasises interactions between the layers. Moving outwards from the centre, individual lifestyle choices are embedded in social norms and community networks, and in living and working conditions, which in turn are shaped by and related to the wider socioeconomic and cultural environment.



Source: (Dahlgren, G & Whitehead, M, 2021)

## Plate 11.1 Determinants of Health

- 11.4.27 This model has been developed to show elements of the built environment and communities that are the most significant determinants of health, as shown in Plate 11.2.



Source: (Bartan, H & Grant, M, 2006)

## Plate 11.2 Determinants of Health in Neighbourhoods

- 11.4.28 Within a population there can also be health inequalities, defined by the WHO as “differences in health status or in the distribution of health determinants between different population groups. For example, differences in mobility between elderly people and younger populations or differences in mortality rates between people from different social classes”.

## Baseline Data Gathering and Forecasting Methods

- 11.4.29 This chapter assesses the potential health and wellbeing effects of the Suffolk Onshore Scheme against the current health and wellbeing baseline conditions within the study areas.

### Desktop Survey

- 11.4.30 In order to understand the existing health and wellbeing baseline, data illustrating the existing health and wellbeing conditions has been collected through a desk-based research exercise using publicly available sources, documents, and web-based applications.

- 11.4.31 Sources of information consulted include:

- (Office for National Statistics, 2022); Census 2021;



- (Ministry of Housing, Communities and Local Government (MHCLG), 2019); English Indices of Deprivation;
- (The Office for Health Improvement & Disparities (OHID), 2020); Health Profiles;
- (NHS Digital, 2024); General Practice Workforce (August 2024); and
- (Department for Culture, Media and Sport, 2023); Community Life Survey.

## Field Surveys

- 11.4.32 **Application Document 6.2.2.1 Part 2 Suffolk Chapter 1 Landscape and Visual** sets out details of the preliminary field work undertaken within summer 2022, and winter 2023 to inform the scoping process, assess the existing character of the landscape and visit representative viewpoints. Viewpoint photography was also captured on the 15 March 2023. As part of the ES, further landscape photography was also undertaken in summer 2023 (July to September) and winter 2024 (February and March).
- 11.4.33 **Application Document 6.2.2.7 Part 2 Suffolk Chapter 7 Traffic and Transport** sets out details of the traffic survey undertaken in January 2024 as part of the ES in order to obtain comprehensive set of baseline traffic flows within the agreed study area.
- 11.4.34 **Application Document 6.2.2.8 Part 2 Suffolk Chapter 8 Air Quality** sets out that no air quality surveys have been undertaken as part of the ES. Data has been collected from the following sources: Defra UK Air website, local authority websites and annual Air Quality Status Reports, and the MAGIC website.
- 11.4.35 **Application Document 6.2.2.9 Part 2 Suffolk Chapter 9 Noise and Vibration** sets out details of noise surveys carried out in March and April 2024 to assess baseline conditions of relevance to the potential noise impacts of the Suffolk Onshore Scheme.

## Assessment Criteria

- 11.4.36 The Health and Wellbeing assessment follows the general assessment methodology set out in **Application Document 6.2.1.5 Part 1 Introduction Chapter 5 EIA Approach and Methodology**. However, the specific impact magnitude and impact sensitivity criteria for this assessment have been set out in this section.
- 11.4.37 The classification and significance of an effect reflects the relationship between the scale of impact (magnitude) and the sensitivity of the affected receptor. As such, the significance of health and wellbeing effects has been assessed based on the expert judgment and professional experience of the author, and relies on the following considerations:
- Sensitivity of human health receptors including general populations and potentially vulnerable sub-populations: the assessment takes account of the qualitative (rather than quantitative) sensitivity of relevant populations and sub-populations and their ability to respond to change as applicable to each determinant; and
  - Magnitude of impact: this entails consideration of the scale of the exposure of the population to an impact; whether the impact is one-off or continuous; the likely nature of the human health impact; the permanence of the change; and the proportion of the relevant study area population that would be affected.
- 11.4.38 Criteria for receptor sensitivity and impact magnitude are set out below. The classification of effect matrix is provided following the receptor sensitivity and impact magnitude criteria.

## Sensitivity of health and wellbeing receptors

11.4.39 Sensitivity of population health and wellbeing is driven by a number of factors which are set out in Table 11.7 below and are based on guidance set out by IEMA guidance. This good practice approach is based on existing national and international guidance, hence why the sensitivity levels differ slightly from that set out in **Application Document 6.2.1.5 Part 1 Introduction Chapter 5 EIA Approach and Methodology**.

**Table 11.7 Health and Wellbeing Sensitivity of Receptor Criteria**

Sensitivity Level	Criteria
High	High levels of deprivation (including pockets of deprivation); reliance on shared resources (between the population and the Proposed Project); existing wide inequalities between the most and least healthy; a community whose outlook is predominantly anxiety or concern; people who are prevented from undertaking daily activities; dependants; people with very poor health status; and/or people with a very low capacity to adapt.
Medium	Moderate levels of deprivation; few alternatives to shared resources; existing widening inequalities between the most and least healthy; a community whose outlook is predominantly uncertainty with some concern; people who are highly limited from undertaking daily activities; people providing or requiring a lot of care; people with poor health status; and/or people with a limited capacity to adapt.
Low	Low levels of deprivation; many alternatives to shared resources; existing narrowing inequalities between the most and least healthy; a community whose outlook is predominantly ambivalence with some concern; people who are slightly limited from undertaking daily activities; people providing or requiring some care; people with fair health status; and/or people with a high capacity to adapt.
Very Low	Very low levels of deprivation; no shared resources; existing narrow inequalities between the most and least healthy; a community whose outlook is predominantly support with some concern; people who are not limited from undertaking daily activities; people who are independent (not a carer or dependent); people with good health status; and/or people with a very high capacity to adapt.

## Magnitude of health and wellbeing impacts

- 11.4.40 Magnitude of impact is driven by a number of factors which are set out in Table 11.8 below and are based on guidance set out by IEMA guidance and the terminology set out in **Application Document 6.2.1.5 Part 1 Introduction Chapter 5 EIA Approach and Methodology**.

**Table 11.8 Health and Wellbeing Magnitude of Impact Criteria**

Magnitude Level	Criteria
Large	High exposure or scale; long-term duration; continuous frequency; severity predominantly related to mortality or changes in morbidity (physical or mental health) or very severe illness/injury outcomes; majority of population affected; permanent change; substantial service quality implications.
Medium	Low exposure or medium scale; medium-term duration; frequent events; severity predominantly related to moderate changes in morbidity or moderate change in quality of life; large minority of population affected; gradual reversal; small service quality implications.
Small	Very low exposure or small scale; short-term duration; occasional events; severity predominantly related to minor change in morbidity or moderate change in quality of life; small minority of population affected; rapid reversal; slight service quality implications.
Negligible	Negligible exposure or small scale; very short-term duration; one off frequency; severity predominantly relates to minor change in quality of life; very few people affected; immediate reversal once activity complete; no service quality implications.

## Classification and significance of effects

- 11.4.41 Health and wellbeing effects reflect the relationship between the sensitivity of the relevant population's health, and the magnitude of the impact, as set out in Table 11.9. Where two options are shown for the classification of effect (e.g. minor/negligible), professional judgement is used to determine which of the two options is most appropriate.

**Table 11.9 Classification of Effect**

Magnitude of Impact	Sensitivity of Receptor			
	High	Medium	Low	Very Low
<b>Large</b>	Major	Major / Moderate	Moderate / Minor	Minor / Negligible
<b>Medium</b>	Major / Moderate	Moderate	Minor	Minor / Negligible
<b>Small</b>	Moderate / Minor	Minor	Minor	Negligible
<b>Negligible</b>	Minor / Negligible	Minor / Negligible	Negligible	Negligible

- 11.4.42 Duration of effect is also considered, with more weight given to longer-term or permanent changes than to shorter-term or temporary ones.
- 11.4.43 In accordance with the methodology set out within **Application Document 6.2.1.5 Part 1 Introduction Chapter 5 EIA Approach and Methodology**, the following criteria is then applied to determine the significance of the effect:
- ‘Major’ or ‘moderate’ effects are classed as ‘significant’;
  - ‘Minor’ effects are classed as ‘not significant’, although they may be a matter of local concern; and
  - ‘Negligible’ effects are classed as ‘not significant’.

## Assumptions and Limitations

- 11.4.44 The assessment of the significance of health and wellbeing effects has been carried out against a benchmark of current health and wellbeing baseline conditions prevailing around the Suffolk Onshore Scheme, as far as is possible within the limitations of such a dataset. Baseline data is subject to a time lag between collection and publication. As with any dataset, these conditions may be subject to change over time which may influence the findings of the assessment. Baseline conditions reported in Section 11.7 regarding health and wellbeing are based on the latest data available at the time of writing.
- 11.4.45 The assessment of likely health and wellbeing effects arising from the Suffolk Onshore Scheme is based on professional judgement, drawing on relevant legislation, policy and guidance as set out in Section 11.2. It considers both the potential beneficial and adverse impacts that the Proposed Project is likely to have on health and wellbeing.
- 11.4.46 The assessment of effects on health and wellbeing draws on assessments of relevance to health and wellbeing and its wider determinants. The chapters of relevance are defined in Section 11.3.7. Relevant assumptions and limitations set out in related assessments are set out in respective topic chapters.
- 11.4.47 If the Proposed Project is required to be decommissioned, the activities and effects associated with the decommissioning phase are expected to be of a similar level to those during the construction phase works. Therefore, the likely significance of effects

relating to the construction phase assessment would be applicable to the decommissioning phase, and hence decommissioning effects are not always discussed separately within Section 11.9 of this chapter.

## 11.5 Basis of Assessment

- 11.5.1 This section sets out the assumptions that have been made in respect of design flexibility maintained within the Proposed Project and the consideration that has been given to alternative scenarios and the sensitivity of the assessment to changes in the construction commencement year.
- 11.5.2 Details of the available flexibility and assessment scenarios are presented in **Application Document 6.2.1.4 Part 1 Introduction Chapter 4 Description of the Proposed Project** and **Application Document 6.2.1.5 Part 1 Introduction Chapter 5 EIA Approach and Methodology**.

### Flexibility Assumptions

- 11.5.3 The environmental assessments have been undertaken based on the description of the Proposed Project provided in **Application Document 6.2.1.4 Part 1 Introduction Chapter 4 Description of the Proposed Project**. To take account of the flexibility allowed in the Proposed Project, consideration has been given to the potential for effects to be of greater or different significance should any of the permanent or temporary infrastructure elements be moved within the Limits of Deviation (LoD) or Order Limits.
- 11.5.4 The assumptions made regarding the use of flexibility for the main assessment, and any alternatives assumptions are set out in Table 11.10.

**Table 11.10 Flexibility assumptions**

Element of flexibility	How it has been considered within the assessment
Lateral LoD HVDC/HVAC cables	The assumption that high voltage direct current (HVDC) cables have the potential to be laid anywhere within the lateral LoD has been considered for the assessment. In order to assess the reasonable worst-case scenario on land take, the maximum design parameters have been selected to inform the assessment.
Lateral LoD Saxmundham Converter Station and Friston Substation	The assumption considered within this assessment is that the Saxmundham Converter Station and Friston are to be constructed based on their indicative location as shown in <b>Application Document 2.2.2 Suffolk Location Plan</b> and <b>Application Document 2.5.1 Work Plans - Suffolk</b> . However, Saxmundham Converter Station and Friston Substation could be constructed anywhere within the lateral LoD and this has been considered within the assessment of effects for health and wellbeing. In order to assess the reasonable worst-case scenario on land take required during the operation phase, the maximum design parameters have been selected to inform the assessment.



Element of flexibility	How it has been considered within the assessment
Vertical LoD  Saxmundham Converter Station and Friston Substation	The assumption considered within the assessment is that there is a 26 m maximum vertical LoD for Saxmundham Converter Station and 18 m for Friston Substation as explained in <b>Application Document 6.2.1.4 Part 1 Introduction Chapter 4 Description of the Proposed Project</b> . In order to assess the reasonable worst-case scenario on amenity impacts, the maximum design parameters have been selected to inform the assessment.
Lateral and Vertical LoD overhead line (where Friston Substation is built as part of the Proposed Project)	<p>The assumption considered within this assessment is that overhead line works are to take place within the lateral LoD. In order to assess the reasonable worst-case scenario on land take required for the Proposed Project, the maximum design parameters have been selected to inform the assessment.</p> <p>The assumption considered within this assessment is that new overhead line pylons are to be built within the vertical LoD as described in <b>Application Document 6.2.1.4 Part 1 Introduction Chapter 4 Description of the Proposed Project</b>. In order to assess the reasonable worst-case scenario on amenity impacts, the maximum design parameters have been selected to inform the assessment.</p>
Order Limits - temporary construction works	The assumption considered within the assessment is that construction works could take place anywhere within the Order Limits, therefore the maximum design parameters have been considered to inform the assessment.

## Consideration of Scenarios

- 11.5.5 The following scenarios with regards to Friston Substation have been considered in the assessment as explained in **Application Document 6.2.1.4 Part 1 Introduction Chapter 4 Description of the Proposed Project**:
- Friston Substation is installed under the current consent granted by Scottish Power Renewables (SPR); or
  - Friston Substation is built as part of the Proposed Project.
- 11.5.6 Friston Substation would be located across Footpath 354/006/0. **Application Document 6.2.2.10 Part 2 Suffolk Chapter 10 Socio-economics, Recreation and Tourism** is used to inform the health and wellbeing assessment, set out in Section 11.9. **Application Document 6.2.2.10 Part 2 Suffolk Chapter 10 Socio-economics, Recreation and Tourism** sets out an assessment of socio-economics, recreation and tourism that includes impacts on PRoW and recreational routes, residential properties, local businesses, visitor attractions, community facilities and open space for the full construction of the Suffolk Onshore Scheme, including Friston Substation. This offers a robust worst-case scenario assessment by assuming that Friston Substation would be built as part of the Proposed Project and therefore considering impacts on Footpath 354/006/0. Due to the fact that the health and wellbeing assessment draws on the socio-economic, recreation and tourism assessment, it is appropriate to utilise the same

methodology of assuming a worst-case scenario. Resultantly, a robust worst-case scenario assessment of health and wellbeing has been adopted in Section 11.9.

- 11.5.7 Should Friston Substation be installed under the current consent granted to SPR, then this would be expected to reduce impacts on socio-economic receptors given that this would result in fewer PRow interactions.
- 11.5.8 The following options with regards to the proposed bridge over the River Fromus have been considered in the assessment as described in **Application Document 6.2.1.4 Part 1 Introduction Chapter 4 Description of the Proposed Project**:
- Option 1 - A bridge height of up to 6 m (from the ground level at the abutment to the top of the parapet) with 62 m long approach ramps; and
  - Option 2 - A bridge height of up to 4 m (from the ground level at the abutment to the top of the parapet) with 42 m long approach ramps.
- 11.5.9 The two options for the bridge over the River Fromus are assumed to have the same impact on the level of usage of the River Fromus. It is not anticipated that the height of the bridge or its footprint will change the assessment outcome.
- 11.5.10 The construction phase assessment considers that there would be three options for the Saxmundham Converter Station construction compound location (S02, S03 and S04/05), as illustrated in **Application Document 2.14.1 Indicative General Arrangement Plans – Suffolk**. Only one of the construction compound options will be used however the area is sized to allow flexibility that is required for potential colocation with other projects. With regard to effects on health and wellbeing receptors, the assessment has considered the human populations likely to be at risk from the possible direct and indirect health impacts that might arise from the Suffolk Onshore Scheme, considering the maximum parameters in accordance with the relevant guidance and assumption that the construction compound could be located in any of these sites. This offers a robust worst-case scenario assessment by considering the impact on factors such as access to healthcare, air quality, noise and vibration, transport and access, open space, and social cohesion and community identity.

## Sensitivity Test

- 11.5.11 It is likely that under the terms of the DCO, construction could commence in any year up to five years from the granting of the DCO which is assumed to be 2026. Consideration has been given to whether the effects reported would be any different if the works were to commence in any year up to year five. Where there is a difference, this is reported in Section 11.12.

## 11.6 Study Area

- 11.6.1 The study areas for the assessment of potential health and wellbeing effects have been defined to include human populations likely to be at risk from the possible direct and indirect health impacts that might arise from the Suffolk Onshore Scheme. The study areas for human health are therefore based both on the extent and characteristics of the Suffolk Onshore Scheme, and the populations assessed to be likely to be directly and indirectly affected by it. Therefore, the study areas for the health assessment vary by the type of impact being assessed.
- 11.6.2 The population health baseline comprises the two wards in which the Suffolk Onshore Scheme Boundary is located. These include: Aldeburgh & Leiston and Saxmundham,

both located in East Suffolk District. A best fit Lower Super Output Area (LSOA)<sup>1</sup> study area is used for deprivation. Where data is not available at the ward level, local district level data is provided for East Suffolk district. Comparator data is provided for East of England and England as a whole, where relevant.

- 11.6.3 For sensitive receptors, the study area is defined based on the geographic extent of other topics for each environmental aspect of relevance to health and wellbeing, namely Landscape and Visual, Traffic and Transport, Air Quality, Noise and Vibration, and Socio-economics, Recreation and Tourism. These study areas are set out in the relevant chapters of this ES and are summarised in the table below.
- 11.6.4 Table 11.12 presents the different components of the health and wellbeing effects assessment for this ES, the geographical scale at which each component is assessed, and the rationale behind these geographical scales.

**Table 11.11 Health and wellbeing impacts by geographical scale**

Potential Impact	Study Area	Rationale
Potential adverse impacts on access to healthcare services and other social infrastructure	1 km radius from the Suffolk Onshore Scheme Order Limits.	Study area includes communities and road users that could be affected by severance or access impacts, or journey delay, as set out in <b>Application Document 6.2.2.10 Part 2 Suffolk Chapter 10 Socio-economics, Recreation and Tourism and Application Document 6.2.2.7 Part 2 Suffolk Chapter 7 Traffic and Transport.</b>
Potential adverse impacts related to accessibility of PRoW, recreational routes and open space, which could impact health and wellbeing	Users of PRoW, recreational routes and open space within and up to 500 m radius from the Suffolk Onshore Scheme Order Limits.  Human receptors in the vicinity of the road network related to the Proposed Project.	The study area includes human receptors that could be affected by impacts on PRoW or the local road network as a result of the Proposed Project, as set out in <b>Application Document 6.2.2.10 Part 2 Suffolk Chapter 10 Socio-economics, Recreation and Tourism and Application Document 6.2.2.7 Part 2 Suffolk Chapter 7 Traffic and Transport.</b>

<sup>1</sup> Lower Super Output Areas (LSOAs) are ONS defined small geographic areas across England designed to allow data reporting across small areas. Each LSOA in England is of a similar population size, with an average of approximately 1,500 residents of 650 households. The best fit LSOA area across the local ward study area comprises the following LSOAs: Suffolk Coastal 003A, 003C, 003E, and 004A.

Potential Impact	Study Area	Rationale
Potential adverse impacts on air quality from the Proposed Project, which could impact health and wellbeing	The study area for construction dust emissions is 350 m from the Order Limits and 50 m of the route(s) used by construction vehicles on the public highway, 500 m from the site entrances. The study area for construction vehicle emissions comprises an area within 200 m of the affected road network.	Study area includes human receptors which could be impacted by construction phase dust or emissions generated by construction vehicle emissions. These study areas are in accordance with the relevant guidance (IAQM construction dust guidance and DMRB LA105 guidance respectively), as set out in <b>Application Document 6.2.2.8 Part 2 Suffolk Chapter 8 Air Quality</b> .
Potential adverse impacts arising from increased noise and vibration due to the Proposed Project, which could impact health and wellbeing	The study area for construction noise effects includes noise sensitive receptors (NSR) within 300 m of the Order Limits. The study area for construction vibration comprises 100m from the closest construction activity with the potential to generate vibration impacts at NSR. For construction traffic noise, the existing road network would be assessed for each applicable road. The operational noise study area includes NSR within 1 km of the converter station and substation.	Study area includes human receptors that could be impacted by increased exposure to noise and vibration. These study areas are in accordance with the relevant guidance, as set out in <b>Application Document 6.2.2.9 Part 2 Suffolk Chapter 9 Noise and Vibration</b> .

Potential Impact	Study Area	Rationale
Potential beneficial impacts on access to employment, training and income opportunities, which could impact health and wellbeing	60-minute travel area (drive time estimate using GIS data, based on the Suffolk Onshore Scheme Order Limits and indicative site access points).	Study area includes human receptors that could benefit from local economic and employment impacts. Research by the Chartered Institute of Personnel and Development (CIPD) found that 90% of national employees commuted for 60 minutes or less each way. This was reported by CIPD in the 2017 Employee outlook 'Employee views on working life' (Chartered Institute of Personnel Development, 2017), as set out in <b>Application Document 6.2.2.10 Part 2 Suffolk Chapter 10 Socio-economics, Recreation and Tourism.</b>
Potential adverse impacts on social cohesion and community identity	The study area for the landscape and visual assessment of the Suffolk Onshore Scheme comprises an area of 3 km from the Order Limits.	Study area includes human receptors that could be impacted by landscape and visual impacts. The study area has been informed by a review of the design of the Suffolk Onshore Scheme, desk-based research, field-based appraisal, ZTV mapping and professional judgement, as well as being agreed with statutory consultees, as set out in <b>Application Document 6.2.2.1 Part 2 Suffolk Chapter 1 Landscape and Visual.</b> The 3 km study area is larger than and therefore encompasses the study areas of other relevant technical chapters.

## 11.7 Baseline Conditions

- 11.7.1 This section describes the baseline conditions of relevance to health and wellbeing. First, a population health baseline of the local population is set out. Secondly, an infrastructure baseline is laid out, which considers the existing local infrastructure



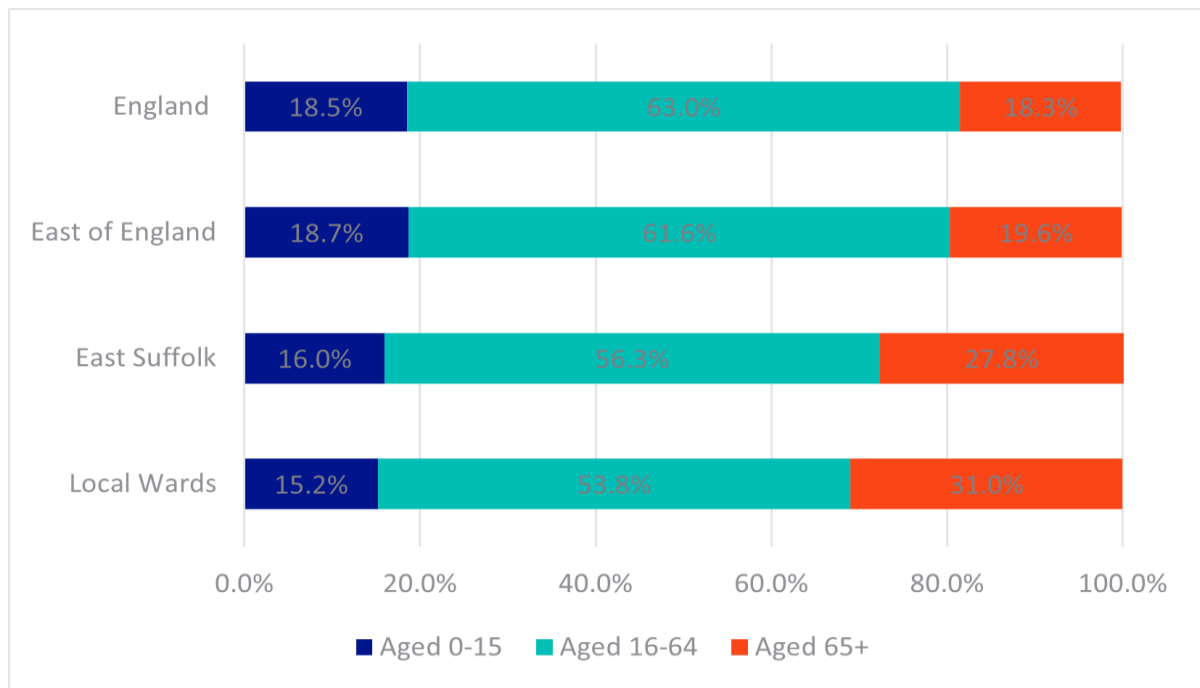
relevant to the health and wellbeing assessment, this draws largely on **Application Document 6.2.2.10 Part 2 Suffolk Chapter 10 Socio-economics, Recreation and Tourism** and includes residential properties, community facilities and recreational routes such as PRoW. This is followed by a summary of baseline conditions from other chapters of the ES which are relevant to the assessment of health and wellbeing, and then a discussion of the future baseline.

## Existing Baseline

### Population health baseline

#### Population

- 11.7.2 According to the latest data from the 2021 Census (Office for National Statistics, 2022), Aldeburgh & Leiston has a population of 12,093 and Saxmundham has a population of 4,786. Therefore, the total population for the two wards in which the Proposed Project is located (local wards) is approximately 16,879.
- 11.7.3 Plate 11.3 shows the breakdown of total population by age groups for the local ward study area, East Suffolk, East of England region and England, using 2021 Census data for age by single year.
- 11.7.4 The proportion of residents aged 0-15 in the local ward study area is 15.2%. This is lower than the proportions in East Suffolk (16%), the East of England (18.7%) and England (18.5%).
- 11.7.5 The proportion of residents of working age (16- to 64-year-olds) in the study area is 53.8%. This is lower than the proportion recorded in East Suffolk (56.3%), and notably lower than recorded for the East of England region (61.6%) and England (63%).
- 11.7.6 The proportion of residents aged 65 and over in the local wards is 31%. This is higher than the proportion in East Suffolk (27.8%), and considerably higher than the proportions for East of England (19.6%) and England (18.3%). The health and wellbeing of this large population of over-65-year-olds is likely to be more sensitive than other sub-groups of the population and may have a higher reliance on health services and social infrastructure.



Source: (Office for National Statistics, 2022); Census 2021.

## Plate 11.3 Age breakdown by geography

### Ethnicity

- 11.7.7 The 2021 Census (Office for National Statistics, 2022) provides the latest data showing residents self-identified ethnicity. As shown in Table 11.13, at the time of the Census, the proportion of white residents living in the local wards (97.4%) was higher than the proportion for East Suffolk (96.2%), the East of England (86.5%) and England (81%) overall. The proportions of residents of each ethnic minority group recorded by the 2021 Census living in the local wards was lower than the proportions across the three comparator geographies.

## Table 11.12 Ethnicity (Census 2021)

Source: (Office for National Statistics, 2022), *Census 2021*. Figures may not sum due to rounding.

Ethnic Group	Local Wards	East Suffolk	East of England	England
White (%)	97.4	96.2	86.5	81.0
Mixed/multiple ethnic groups (%)	1.1	1.5	2.8	3.0
Asian/Asian British (%)	1.2	1.4	6.4	9.6
Black/African/Caribbean/Black British (%)	0.3	0.6	2.9	4.2
Other ethnic group (%)	0.4	0.4	1.4	2.2

### Deprivation

- 11.7.8 The Government's English Index of Multiple Deprivation (IMD) (Ministry of Housing, Communities and Local Government (MHCLG), 2019) provides an overall deprivation score for each LSOA and Local Authority in England. The overall score is based on a number of domains and sub-domains which together provide a measure of deprivation. Each area is ranked according to its score, and the index provides a measure of relative deprivation across all areas.
- 11.7.9 Based on the 2019 IMD, East Suffolk is ranked as the 158th most deprived local authority of 317 districts in England (where 1 is the most deprived). Within East Suffolk, 10 of the LSOAs are in the top 10% most deprived LSOAs in England (6.8% LSOAs in East Suffolk). Across East Suffolk, 15 LSOAs rank in the top 10% least deprived LSOAs in England (10.3% of LSOAs).
- 11.7.10 More granular deprivation data is available at the LSOA level. A best fit LSOA study area has been used to assess deprivation around the Proposed Project. The best fit study area across the local wards comprises the following LSOAs<sup>2</sup>: Suffolk Coastal 004A, Suffolk Coastal 003E, Suffolk Coastal 003A and Suffolk Coastal 003C.
- 11.7.11 Table 11.13 shows a summary of relevant IMD data across the LSOA study area and East Suffolk district.

## Table 11.13 IMD (2019)

	Suffolk Coastal 004A	Suffolk Coastal 003E	Suffolk Coastal 003A	Suffolk Coastal 003C	East Suffolk
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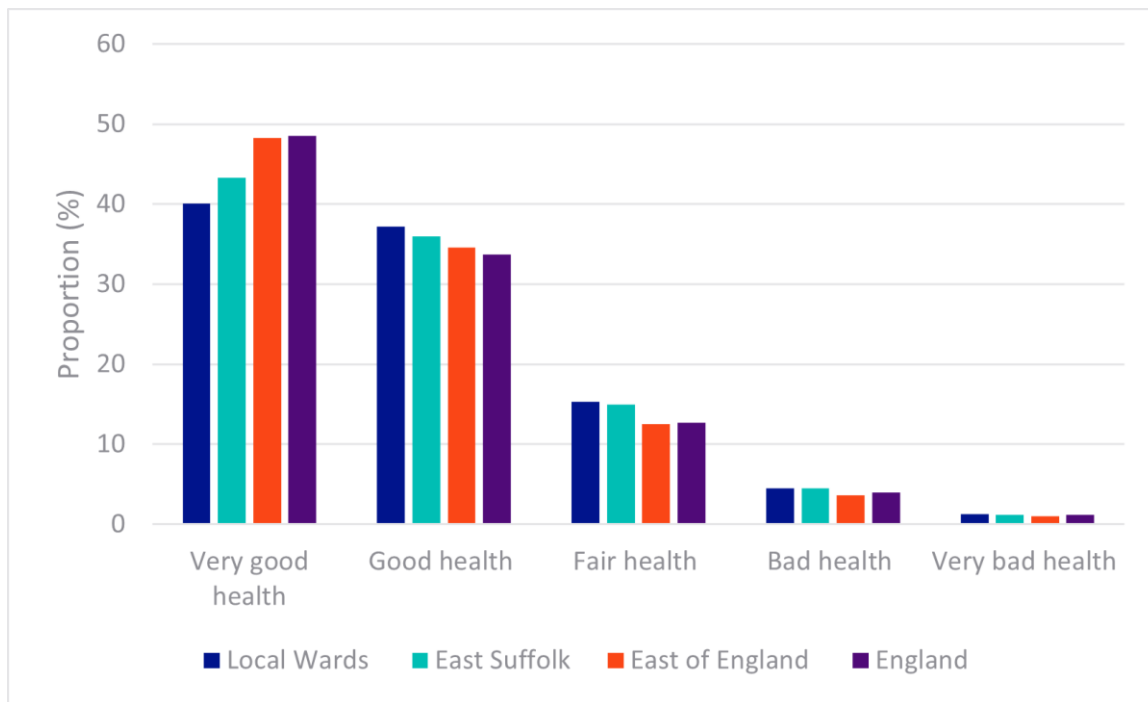
<sup>2</sup> Suffolk Coastal district and Waveney district merged in 2019 to form the new ESC, hence the LSOA names.

	<b><i>Decile</i></b>				<b><i>Rank</i></b>
Overall deprivation	8 <sup>th</sup>	6 <sup>th</sup>	6 <sup>th</sup>	6 <sup>th</sup>	158 <sup>th</sup>
Health deprivation	8 <sup>th</sup>	9 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	159 <sup>th</sup>
Barriers to housing and services	3 <sup>rd</sup>	2 <sup>nd</sup>	4 <sup>th</sup>	10 <sup>th</sup>	209 <sup>th</sup>
Living environment deprivation	5 <sup>th</sup>	1 <sup>st</sup>	7 <sup>th</sup>	4 <sup>th</sup>	133 <sup>rd</sup>

Source: (Ministry of Housing, Communities and Local Government (MHCLG), 2019); IMD

### Health profile and outcomes

- 11.7.12 Data from the 2021 Census (Office for National Statistics, 2022) provides the most recent data showing residents' self-assessment of health with individuals identifying their overall health ranging from 'Very Good' to 'Very Bad'.
- 11.7.13 Across the local wards, most residents identified that they are in 'very good' or 'good' health. At the time of the 2021 Census, 5.8% of local residents identified themselves in 'bad' or 'very bad' health. This proportion is similar to East Suffolk (5.7%), but higher than the rate across the East of England (4.6%) and England (5.2%). The full breakdown of self-assessed health across the local wards, East Suffolk, East of England and England is shown in Plate 11.4.

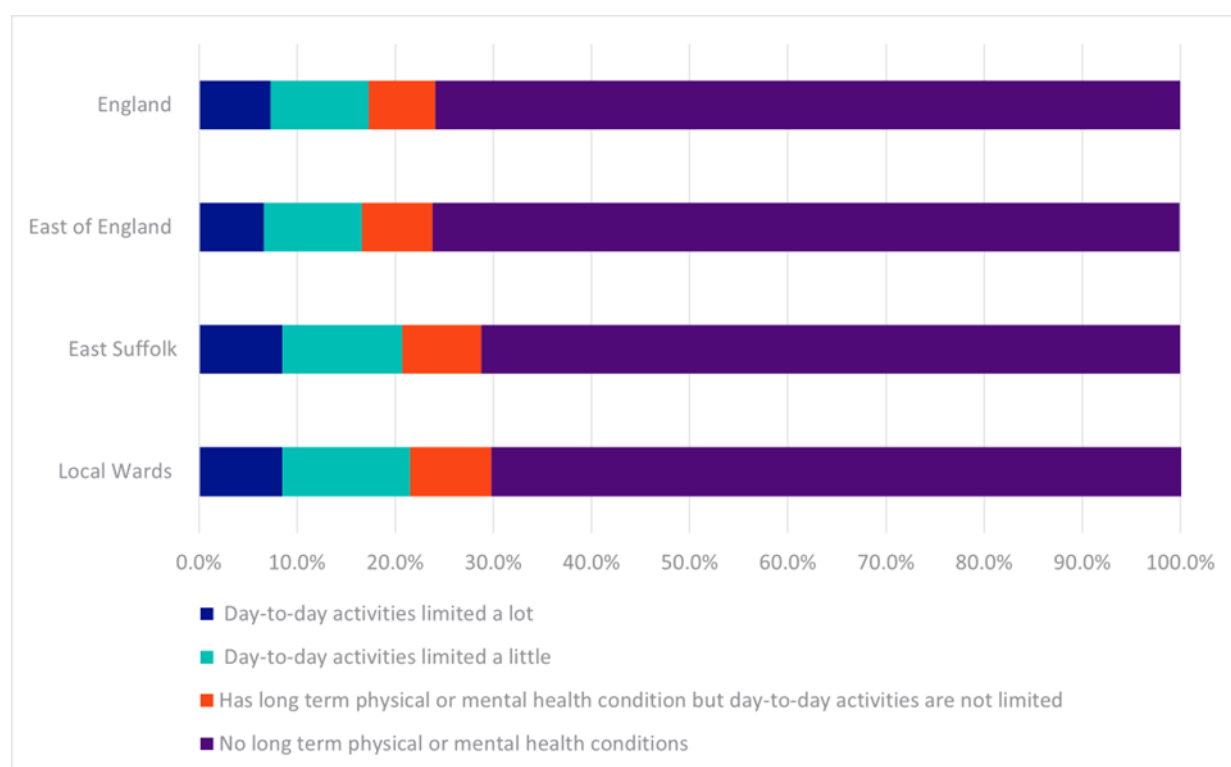


Source: (Office for National Statistics, 2022); *Census 2021*

## Plate 11.4 Self-Assessment of Health

11.7.14 Plate 11.5 illustrates self-assessment of the extent to which residents' day to day activities are impacted by long-term health problems or disability, according to data from the 2021 Census. The proportion of residents in the local wards that experience limitations to their daily activities a little or a lot as a result of a health problem or disability is 21.4%. This is higher than the proportion across East Suffolk (20.7%), the East of England (16.6%) and England (17.3%).





Sources: (Office for National Statistics, 2022); Census 2021

## Plate 11.5 Self-Assessment of Long-Term Health or Disability

- 11.7.15 The Office for Health Improvement & Disparities (OHID) (The Office for Health Improvement & Disparities (OHID), 2020) publishes data on a range of health indicators at ward and local authority level. A summary of relevant indicators is shown in Table 11.14.
- 11.7.16 Life expectancy at birth for males is higher than the England average across Saxmundham ward, East Suffolk and the East of England, but lower in Aldeburgh & Leiston. Life expectancy at birth for females is higher than the national average across Aldeburgh & Leiston Ward, East Suffolk and the East of England, but lower than average in Saxmundham.
- 11.7.17 Data showing inequality between populations with respect to life expectancy at birth is not available at local ward level. Inequality in life expectancy at birth for males and females is lower (less unequal) across East Suffolk and the East of England compared to the England average.
- 11.7.18 In terms of the number of deaths among the local population aged 75 and under, generally fewer deaths than the nationally averaged rate took place over the years 2016-2020 across Aldeburgh & Leiston (Standardised Mortality Ratio (SMR) of 91.7) and East Suffolk (SMR of 86.9), but more deaths than average took place in Saxmundham (SMR of 105.3).
- 11.7.19 With respect to deaths from respiratory diseases all geographies included in Table 11.14 8 performed better than the national average over the years 2016-2020. Rates of deaths from all causes considered preventable (2016-2020) are also better than the national average across the local wards, East Suffolk and East of England.
- 11.7.20 The proportion of Year 6 children who are obese (3-years data combined 2019 to 2020, to 2021 to 2022), when compared to the national average (21.6%), is lower in

Saxmundham (17.6%), East Suffolk (18.5%) and the East of England (19.5%), but higher in Aldeburgh & Leiston (23.1%).

**Table 11.14 Community health profile**

	<b>Aldeburgh &amp; Leiston Ward</b>	<b>Saxmundham Ward</b>	<b>East Suffolk</b>	<b>East of England</b>	<b>England</b>
<b>Life Expectancy at Birth (males) (2018-2020) (years)</b>	78.9	82.7	80.5	80.2	79.5
<b>Life Expectancy at Birth (females) (2018-2020) (years)</b>	84.3	81.2	83.8	83.8	83.2
<b>Inequality in Life Expectancy at Birth (males 2018-2020) (SII)</b>	<i>Data not available at ward level</i>		7.3	7.9	9.7
<b>Inequality in Life Expectancy at Birth (females 2018-2020) (SII)</b>	<i>Data not available at ward level</i>		5.4	6.2	7.9
<b>Deaths from all causes, under 75 years, Indirectly standardised ratio 2016 to 2020 (Standardised mortality ratio (SMR))</b>	91.7	105.3	86.9	n/a	100
<b>Deaths from respiratory diseases, all ages, Indirectly standardised ratio, 2016 to 2020 (SMR)</b>	88.1	76	83.2	n/a	100
<b>Deaths from causes considered preventable, under 75 years, Indirectly standardised ratio, 2016 to 2020 (SMR)</b>	90.2	92.1	83	n/a	100
<b>Smoking prevalence (%) (at age 15) (2014)</b>	5.3%	4.8%	5.9%	5.7%	5.4%
<b>Prevalence of Obesity in Children</b>	23.1%	17.6%	18.5%	19.5%	21.6%

	Aldeburgh & Leiston Ward	Saxmundham Ward	East Suffolk	East of England	England
(%) (Year 6) 3-years data combined 2019 to 2020, to 2021 to 2022					

Source: (The Office for Health Improvement & Disparities (OHID), 2020). OHID.

### Local health priorities

- 11.7.21 Relevant local health priorities are set out at county level within Suffolk's Joint Local Health and Wellbeing Strategy 2022-2027 (Suffolk County Council, 2022). Current priorities within Suffolk's Joint Health and Wellbeing strategy include:
- public mental health;
  - good work and health;
  - listening and engaging with local voices; and
  - wellbeing of children and young people.

### Community cohesion

- 11.7.22 According to the Community Life Survey (Department for Culture, Media and Sport, 2023), in the East of England (the most granular level of data) 64% of respondents in 2021 felt like they belonged strongly or fairly strongly to their immediate neighbourhood. This is lower than the average for England (65%).

## Infrastructure Baseline

### Settlements

- 11.7.23 There are no residential properties located within the Suffolk Onshore Scheme Order Limits, as set out in **Application Document 6.2.2.10 Part 2 Suffolk Chapter 10 Socio-economics, Recreation and Tourism**.
- 11.7.24 A number of settlements lie within close proximity to the Suffolk Onshore Scheme. To the north west of the Suffolk Onshore Scheme, Saxmundham borders the Suffolk Onshore Scheme Order Limits. The southern portion of the village of Knodishall borders the Suffolk Onshore Scheme Order Limits to the north. The north of the village of Friston borders the South of the Suffolk Onshore Scheme Order Limits. The town of Aldeburgh is located approximately 460 m to the south of the Suffolk Onshore Scheme Order Limits. The villages of Benhall and Sternfield are also located within 500 m of the Suffolk Onshore Scheme Order Limits to the south west.
- 11.7.25 There are no additional settlements located within 1 km of the Suffolk Onshore Scheme Order Limits.
- 11.7.26 A number of small clusters of residential properties or isolated properties also lie within close proximity to the Suffolk Onshore Scheme Order Limits. This includes a cluster of residential properties located along Leiston Road. These are discussed further in

Healthcare facilities

- 11.7.27
- The nearest hospital (with an accident and emergency department) to the Proposed Project is Ipswich Hospital, which is around 26 km south-west of the Suffolk Onshore Scheme Order Limits. There is also a community hospital in Aldeburgh, approximately 1.6 km from the Suffolk Onshore Scheme Order Limits.
- 11.7.28
- The Suffolk Onshore Scheme is located within the NHS Suffolk and North East Essex ICB area which, as of August 2024 had 91 General Practitioner (GP) practices, a total of 1,073,803 registered patients, and 575 full time equivalent general practitioners (FTE GPs) (NHS Digital, 2024). This equates to an average patient list size of 1,867 patients per FTE GP. This average list size for ICB is higher than the target list size outlined in guidance from the Royal College of General Practitioners recommends a GP:Patient ratio of 1:1,800.
- 11.7.29
- There are three GP practices within approximately 2 km of the Suffolk Onshore Scheme Order Limits, including Saxmundham Health Centre in Saxmundham (around 170 m away), The Peninsula Practice in Aldeburgh (approximately 1.1 km away), and the Leiston Surgery in the village of Leiston (approximately 2 km away). All surgeries are currently accepting new patients.
- 11.7.30
- The latest GP practice (August 2024) data published by NHS Digital (NHS Digital, 2024) indicates that Saxmundham Health Centre has 8 GP practices that provide care to 9,439 registered patients, this corresponds to 1,180 patients per GP. The Peninsula Practice has 5 GPs that provide care to 6,811 registered patients, this corresponds to 1,362 patients per GP. Leiston Surgery has 7 GPs that provide care to 9,485 registered patients, this corresponds to 1,355 patients per GP. All three GP practices have patient to GP ratios which are below the Royal College of General Practitioners target of 1,800 patients per GP.

Table 11.15 GP baseline

GP Practice	Distance (km)	GPs (headcount)	Patients per GP (headcount)	Accepting New Patients?
Saxmundham Health Centre	0.17	8	1,180	Yes
The Peninsula Practice in Aldeburgh	1.1	5	1,362	Yes
Leiston Surgery	2.0	7	1,355	Yes

Source: (NHS Digital, 2024); Patient List Size and GP Count by Practice.

Emergency services

- 11.7.31 The East of England Ambulance Service Trust (EEAST) serves a population of approximately 6.3 million people across 7,500 square miles, covering Bedfordshire, Hertfordshire, Essex, Norfolk, Suffolk, and Cambridgeshire. The region is supported by six Integrated Care Systems (ICSs).
- 11.7.32 In the 2023/24 period, the Trust received 1,384,547 emergency 999 calls and assisted around 10% of these through its Clinical Assessment Service. Additionally, 479,375 non-emergency patient transport service (PTS) journeys were completed, and more than 850,000 calls were handled through the commercial contact centre (CallEEAST).
- 11.7.33 The service operates with over 5,000 staff members and 1,000 volunteers across three ambulance operations centres in Bedford, Chelmsford, and Norwich. Its fleet consists of 498 frontline vehicles (targeting 525 by Q4 2024), 73 rapid response vehicles, 194 non-emergency ambulances, and 51 vehicles for hazardous area response, major incidents, and resilience (East of England Ambulance Service NHS Trust (EEAST)).
- 11.7.34 There are no police or fire stations within 500 m of the Suffolk Onshore Scheme Order Limits. The nearest police and fire stations are Saxmundham Police Station and Saxmundham Fire Station, both located approximately 770 m to the west of the Suffolk Onshore Scheme Order Limits.

#### Education facilities

- 11.7.35 The closest primary schools to the Suffolk Onshore Scheme are Benhall Saint Mary's Primary School located approximately 640 m to the south and Saxmundham Primary School located approximately 960 m to the north.
- 11.7.36 The closest secondary school is SET Saxmundham School in Saxmundham, around 900 m from the Suffolk Onshore Scheme Order Limits. The next closest secondary school is Alde Valley Academy in Leiston (approximately 2.5 km from the Proposed Project).

#### Community and recreational facilities, and open space

- 11.7.37 There are a number of community facilities within 500 m of the Suffolk Onshore Scheme Order Limits, as set out in **Application Document 6.2.2.10 Part 2 Suffolk Chapter 10 Socio-economics, Recreation and Tourism**. Additionally, Saxmundham Community Hub is located approximately 530 m to the north.
- 11.7.38 There are twelve areas of open space within 500 m of the Suffolk Onshore Scheme Order Limits, as set out in **Application Document 6.2.2.10 Part 2 Suffolk Chapter 10 Socio-economics, Recreation and Tourism** and outlined in Table 11.16 below.

**Table 11.16 Open spaces within 500 m of the Suffolk Onshore Scheme Order Limits**

Receptor	Location	Approximate distance from the Suffolk Onshore Scheme Order Limits	Typology
Aldeburgh Beach	Aldeburgh	0m	Beach / Open water



Receptor	Location	Approximate distance from the Suffolk Onshore Scheme Order Limits	Typology
Royal Society for the Protection of Birds (RSPB) North Warren		230 m	Access Land / Countryside and Rights of Way (CRoW)
Hazelwood Marshes		420m	Nature Reserve
Un-named Saxmundham Park and Playspace	Church Hill, Saxmundham	380m	Park / Amenity green space
Friston Playing Fields	Friston	100 m	Amenity green space
Coldfair Green Woodland	Knodishall	350 m	Woodland
Knodishall Playground	Knodishall	440 m	Amenity green space
River Fromus	N/A	0 m	Running water

## Employment

- 11.7.39 There are 30 businesses within 500 m of the Suffolk Onshore Scheme Order Limits, as detailed in **Application Document 6.2.2.10 Part 2 Suffolk Chapter 10 Socio-economics, Recreation and Tourism**. These businesses include a golf course, campsite, restaurants, shops, hairdressers, a farm, and holiday accommodation.

## Visitor Attractions

- 11.7.40 There are also two visitor attractions within 500 m of the Order Limits, as detailed in **Application Document 6.2.2.10 Part 2 Suffolk Chapter 10 Socio-economics, Recreation and Tourism**. The Scallop<sup>3</sup> at Aldeburgh Beach is located 450 m to the south of the Suffolk Onshore Scheme Order Limits as it makes landfall. The Red House, a museum, lies 450 m to the south of the Suffolk Onshore Scheme Order Limits in Aldeburgh.

## Public Rights of Way (PRoW)

- 11.7.41 **Application Document 6.2.2.10 Part 2 Suffolk Chapter 10 Socio-economics, Recreation and Tourism** sets out 21 PRoW and recreational routes which pass through the Suffolk Onshore Scheme Order limits and a further 44 which are located

<sup>3</sup> The Scallop at Aldeburgh Beach is sculpture and visitor attraction acting as a tribute to the composer Benjamin Britten who lived in Aldeburgh.

within a 500 m radius of the Order Limits. These are discussed further in **Application Document 6.2.2.10 Part 2 Suffolk Chapter 10 Socio-economics, Recreation and Tourism**.

### Employment and Income baseline

11.7.42 **Application Document 6.2.2.10 Part 2 Suffolk Chapter 10 Socio-economics, Recreation and Tourism** sets out the existing baseline with respect to employment and income:

- In 2021, 138,406 (56.3%) of residents in East Suffolk were of working age (defined by ONS as people aged 16 to 64). This proportion is notably lower when compared to the East of England (61.6%) and England as a whole (63.0%).
- In 2021, the Annual Population Survey (Office for National Statistics, 2022) showed that 39.3% of working age residents in East Suffolk have a degree level qualification or higher (National Vocational Qualification (NVQ) Level 4+). This is below the averages for the East of England (39.6%) and England as a whole (43.2%).
- With respect to the sub-domains of deprivation, East Suffolk is ranked as the 158th most deprived local authority of 317 districts in England (where 1 is the most deprived). Within East Suffolk, 10 of the LSOAs are within the top 10% most deprived LSOAs in England (6.8% of LSOAs in East Suffolk).
- From April 2023 to March 2024 the economic activity rate (amongst 16- to 64-year-olds) was 78.7% in East Suffolk which was slightly lower than the rates across the East of England (80.1%) and England as a whole (78.8%).
- The June 2024 claimant count for residents as a proportion of residents aged 16 to 64 was 3.1% in East Suffolk, compared to a rate of 3.6% in the South East and 5.0% across England.
- The average GVA per head within the SCC area in 2022 (the smallest area at which data is available) was £27,079. This is lower than the average for the East of England (£29,586) and England as a whole (£33,976). Data is not available at the local authority level.

### Traffic and transport baseline

11.7.43 **Application Document 6.2.2.7 Part 2 Suffolk Chapter 7 Traffic and Transport** details the baseline highway network across the chapter's study area. The most prominent is the A1094 to the west of Aldeburgh. Other roads in the study area are set out in **Application Document 6.2.2.7 Part 2 Suffolk Chapter 7 Traffic and Transport**.

11.7.44 There are several locations where more than five Personal Injury Accidents (PIAs) were recorded within the five-year period (April 2018 to March 2023), which may suggest that these locations are more sensitive to an increase in traffic from a highway safety perspective. Further details of the collisions at these locations are set out within **Application Document 6.3.2.7.A Appendix 2.7.A Transport Assessment Note**. There are also several locations which appear to have a good safety record with two or fewer PIAs within the five-year period, which suggests that these locations are less sensitive to an increase in traffic from a highway safety perspective. In terms of PIAs involving large vehicles, no locations recorded more than two PIAs involving such vehicles within the five-year period, suggesting that there are not any current issues regarding large vehicle road safety which that need to be considered.

- 11.7.45 The chapter details the baseline traffic data has been obtained for the surrounding highway network within the study area based on surveys carried out in January and February 2024. A summary of the 2024 baseline traffic flows for a 12-hour weekday and 24-hour average day is set out in Table 7-16 in **Application Document 6.2.2.7 Part 2 Suffolk Chapter 7 Traffic and Transport**.
- 11.7.46 The chapter details the active travel network baseline. The Aldeburgh to Hopton On Sea section of the King Charles III England Coast Path has been approved (with establishment works planned/in progress) and will run north-south through the study area using existing routes to the east of Thorpe Road. The Regional Cycle Route 42 runs in a southwest to northeast direction across the study area. The Suffolk Coast Path crosses the study area, north of Aldeburgh. Sandlings Walk, which is a promoted route from Ipswich to Lowestoft, runs east to west across the south of the study area. There are a substantial number of bridleways and shared walking and cycling routes within the study area, which are detailed in **Application Document 6.2.2.7 Part 2 Suffolk Chapter 7 Traffic and Transport**.

### Air quality baseline

- 11.7.47 **Application Document 6.2.2.8 Part 2 Suffolk Chapter 8 Air Quality** sets out the existing baseline with respect to air quality. A summary of the aspects relevant to this health and wellbeing assessment is below:
- There is one Air Quality Management Area (AQMA) declared in East Suffolk. The AQMA last saw an exceedance of the annual mean nitrogen dioxide (NO<sub>2</sub>) objective in 2016 (42.9µg/m<sup>3</sup>). NO<sub>2</sub> concentrations have fallen each year thereafter and the AQMA has achieved compliance for seven consecutive years. As such, it is understood that ESC is seeking to revoke the AQMA in the near future.
  - ESC undertakes non-automatic monitoring of NO<sub>2</sub> using diffusion tubes. The reported results did not record any exceedances of any of the air quality annual mean objectives in 2022. The monitoring results show there has not been an exceedance in the network for the past five years.
  - ESC has one automatic monitoring station (Woodbridge Junction), located approximately 17 km south-west of the Suffolk Onshore Scheme. There has not been an exceedance at this monitoring station in the last five years.
  - There is one ESC monitoring site (SAX 1) within 1 km of the Suffolk Onshore Scheme Order Limits, which is located 530 m west of the Order Limits on Church Street in Saxmundham. In 2023 this site measured an annual mean NO<sub>2</sub> concentration of 21.8 µg/m<sup>3</sup>, which is well below the annual mean NO<sub>2</sub> AQS objective of 40 µg/m<sup>3</sup>; and Background pollutants concentrations data for the relevant 1 km x 1 km grid squares related to the study area has been sourced from Defra Background Maps for 2024. Background NO<sub>2</sub> and particulate matter concentrations for 2023 in the vicinity of the Proposed Project are below the relevant annual mean air quality objective values.

### Noise and vibration baseline

- 11.7.48 **Application Document 6.2.2.9 Part 2 Suffolk Chapter 9 Noise and Vibration** sets out the existing baseline with respect to noise, a summary of the aspects relevant to this health and wellbeing chapter is below:

- In terms of Noise Sensitive Receptors (NSRs), there are built-up residential areas at Saxmundham to the west, Benhall Green, Benhall, and Sternfield to the southwest, Friston to the south, Coldfair Green to the south, Aldeburgh to the southeast, Sizewell to the northeast and Leiston to the northeast.
- There are also isolated NSR and small settlements within the noise and vibration study area located between the main built-up residential areas identified above.
- The noise climate is relatively quiet due to being away from main transport routes. The Suffolk Onshore Scheme noise and vibration study area includes a mix of predominantly residential and rural environments.
- The main existing sources of noise include road traffic from the A12 to the west and, the A1094 which runs between the A12 at Friday Street to the west and Aldeburgh to the east. There are also relatively low levels of traffic on local roads. Away from road traffic sources, ambient sound levels are low and comprise general rural ambient noise, distant road traffic, foliage, and bird song.
- Defra strategic noise mapping indicates that ambient noise levels are moderate to high in the vicinity of the A12 and A1094 but reduce to relatively low levels beyond approximately 300m from the roads.
- There are no Noise Important Areas (NIA) on the existing local public highway along routes within which may be used for construction traffic associated with the Suffolk Onshore Scheme. NIAs are determined via strategic noise maps and highlight the residential areas experiencing the highest 1% of noise levels from road and rail sources in England.
- There are however NIAs in the wider area on main transport routes (e.g. The A12 at Farnham and Little Glemham to the southwest) which are not likely to be significantly affected by the Suffolk Onshore Scheme.
- A baseline noise survey was conducted as one location to inform the assessment of operational noise, representative background sound levels were discussed and agreed with East Suffolk Council.
- Vibration impacts are assessed against fixed thresholds. It is assumed that existing vibration levels are negligible in the study area.
- Regarding the future noise and vibration baseline, no significant changes to the future noise and vibration baseline are anticipated.

### Landscape and visual baseline

- 11.7.49 The study area for the landscape and visual assessment of the Suffolk Onshore Scheme comprises an area of 3 km from the Order Limits surrounding the proposed Saxmundham Converter Station and Friston Substation and 1 km from the Order Limits around the proposed landfall, HVDC and HVAC cable corridors.
- 11.7.50 It is important to note the study area defines the area within which it is judged that significant landscape and/or visual effects could occur, rather than the extent of visibility of the Suffolk Onshore Scheme.
- 11.7.51 **Application Document 6.2.2.1 Part 2 Suffolk Chapter 1 Landscape and Visual** sets out the existing baseline with respect to landscape and visual amenity. The landscape varies considerably across the landscape and visual study area, including parts of the low-lying and gently undulating coastline comprising marshland and heathland, within

Coast and Heaths Area of Outstanding Natural Beauty (AONB). Further inland medium to large-scale agricultural fields dominate, across relatively higher, undulating land.

## Future Baseline

- 11.7.52 The population of East Suffolk is expected to increase from 246,058 at the time of the last Census in 2021 to 267,601 when the Suffolk Onshore Scheme is complete and operational in 2031. This represents an increase of 8.8% (Office for National Statistics, 2018). In the East of England and England as a whole, there are expected to be population increases of 3.9% and 5.1% respectively over the same time period.
- 11.7.53 Table 11.17 sets out population projection data broken down by age group. It shows that by 2031, both the 0 to 15 year-old and the 16 to 64 year-old population will make up a lower proportion of the total population across all study area geographies than they did in 2021. There is projected to be an increase in the proportion of residents aged 65 and over across all study area geographies over the time period.

**Table 11.17 Population projections by age breakdown**

Area	Age	2021	2031
East Suffolk	Aged 0 to 15 (%)	16.0%	14.9%
	Aged 16 to 64 (%)	56.3%	52.4%
	Aged 65+ (%)	27.8%	32.7%
East of England	Aged 0 to 15 (%)	18.7%	17.7%
	Aged 16 to 64 (%)	61.6%	59.0%
	Aged 65+ (%)	19.6%	23.3%
England	Aged 0 to 15 (%)	18.6%	17.5%
	Aged 16 to 64 (%)	63.0%	60.7%
	Aged 65+ (%)	18.4%	21.8%

Source: (Office for National Statistics, 2018). Population Projections.

- 11.7.54 SCC produced a 'Suffolk +20 years' evidence base (Suffolk County Council, 2022) which presents key trends, including on physical health, mental health and inequalities, and estimates the future impact of these trends on Suffolk's future population.
- 11.7.55 'Suffolk +20 years' evidence base estimates that conditions such as heart disease may become more common and that there could be rise in multi-morbidity across the County. Additionally, it approximates that the number of people living with dementia in Suffolk is likely to increase by over 52% in the next 20 years, with most new cases being in people aged over 85 years (Suffolk County Council, 2022). An increase in the number of chronic conditions, such as heart disease and dementia, has the potential to increase pressure on future health and care services.
- 11.7.56 However, the 'Suffolk +20 years' evidence base (Suffolk County Council, 2022) notes that its findings should not be considered as 'all-seeing' and 'all-knowing' as things will change over time. As a result of this guidance, and due to the broad range of individual



and environmental determinants that can influence physical and mental health outcomes, the future community health baseline over the projected term is highly uncertain. Due to this uncertainty, for the purposes of this assessment, it is assumed the future baseline for the Suffolk Onshore Scheme study area would be unchanged from the current baseline to the completion of the Suffolk Onshore Scheme.

- 11.7.57 The future health and wellbeing baseline reflects, where applicable, that set out within other technical assessments within this ES.

## 11.8 Proposed Project Design and Embedded Mitigation

- 11.8.1 The Proposed Project has been designed, as far as possible, following the mitigation hierarchy in order to, in the first instance, avoid or reduce health and wellbeing impacts and effects through the process of design development, and by embedding measures into the design of the Proposed Project.
- 11.8.2 As set out in **Application Document 6.2.1.5 Part 1 Introduction Chapter 5 EIA Approach and Methodology**, mitigation measures typically fall into one of three categories: embedded measures; control and management measures; and mitigation measures. Embedded, and control and management measures are set out below. Additional mitigation measures are discussed in Section 11.10.

### Embedded Measures

- 11.8.3 Embedded measures have been integral in reducing, and where possible avoiding, the health and wellbeing effects of the Proposed Project. Measures that have been incorporated are:
- Sensitive routing and siting of infrastructure and temporary works to avoid or reduce impacts on health and wellbeing receptors; and
  - Commitments made within **Application Document 7.5.3.2 CEMP Appendix B Register of Environmental Actions and Commitments (REAC)**.

### Control and Management Measures

- 11.8.4 Measures relevant to the control and management of impacts during construction have been included within **Application Document 7.5.3.1 CEMP Appendix A Outline Code of Construction Practice**. The following measures have been taken into account in assessing the health and wellbeing effects of the Proposed Project:
- GG02: A Construction Environmental Management Plan (CEMP), Landscape and Ecological Management Plan (LEMP) and a Construction Traffic Management and Travel Plan (CTMTP) will be produced and submitted to the relevant authority for approval prior to construction of the relevant stage of the Proposed Project which it relates. The plan produced will be substantially in accordance with the outline versions submitted as part of the application for development consent. In accordance with the Requirement 6 of Schedule 3 of the draft DCO, the contractor will need to comply with the approved plans (including any amendments to the plans subsequently approved).
  - GG03: The CEMP shall include measures to manage dust, waste, water, noise, vibration and soil during construction. The contractor(s) shall undertake daily site inspections to check conformance to the Management Plans. The title and contact

number of person(s) accountable for issues relating to dust, waste, water, noise, vibration and soil will be displayed at site boundary.

- GG04: A suitably experienced Environmental Manager will be appointed for the duration of the construction phase. In addition, a qualified and experienced Environmental Clerk of Works will be available during the construction phase to advise, supervise and report on the delivery of the mitigation methods and controls outlined in the CEMP. The Environmental Clerk of Works will monitor that the works proceed in accordance with relevant environmental DCO requirements and adhere to the required good practice and mitigation measures. The Environmental Clerk of Works will be supported as necessary by appropriate specialists, including ecologists, soil scientists and arboriculturists.
- GG05: Construction workers will undergo training to increase their awareness of environmental issues as applicable to their role on the project. Topics will include but not be limited to:
  - pollution prevention and pollution incident response;
  - dust management and control measures;
  - location and protection of sensitive environmental sites and features;
  - adherence to protected environmental areas around sensitive features;
  - working hours and noise and vibration reduction measures;
  - working with potentially contaminated materials;
  - waste management and storage;
  - flood risk response actions; and
  - agreed traffic routes, access points, etc.
- GG10: Any activity carried out or equipment located within a construction compound that may produce a noticeable nuisance, including but not limited to dust, noise, vibration and lighting, will be located away from sensitive receptors such as residential properties or ecological sites where practicable.
- GG12: Plant and vehicles will conform to relevant applicable standards for the vehicle type as follows:
  - Euro 4 (NOx) for petrol cars, vans, and minibuses;
  - Euro 6 (NOx and PM) for diesel cars, vans and minibuses; and
  - Euro VI (NOx and PM) for lorries, buses, coaches and Heavy Goods Vehicles (excluding specialist abnormal indivisible loads).

Vehicles will be correctly maintained and operated in accordance with manufacturer's recommendations and in a responsible manner. All plant and vehicles will be required to switch off their engines when not in use and when it is safe to do so. In addition, plant and vehicles will conform to relevant applicable standards for the vehicle type.

- GG20: Bonfires and the burning of waste material will be prohibited;

- GG21: Construction lighting will be of the lowest levels necessary to safely perform each task. It will be designed, positioned and directed to reduce the intrusion into adjacent properties, protected species and habitats e.g. watercourses.
- GG24: An Incident Resource Plan will be developed by the contractor for the construction phase. This will be prepared prior to construction works commencing and thereafter complied with. It will outline procedures that will be implemented in case of unplanned events, including but not limited to site flooding and pollution incidents. Local authorities will be informed of any large scale incidents under the Incident Resource Plan. Smaller scale issues will be recorded in a register that will be made available to local authorities for review on request.
- GG27: Members of the community and local businesses will be kept informed regularly of the works through active community liaison. This will include notification of noisy activities, heavy traffic periods and start and end dates of key phasing. A contact number will be provided which members of the public can use to raise any concerns or complaints about the Proposed Project. All construction-related complaints will be logged by the contractor(s) in a complaints register, together with a record of the responses given and actions taken. This will be made available to local authorities for review on request.
- TT03: All designated Public Rights of Way (PRoWs) will be identified, and any potential temporary and/or permanent diversions applied for/detailed in the DCO. All designated PRoWs crossing the working area will be managed with access only closed for short periods while construction activities occur. Any required diversions will be clearly marked at both ends with signage explaining the diversion, the duration of the diversion (for temporary diversions) and a contact number for any concerns. This is outlined in the Outline Public Rights of Way Management Plans.

11.8.5 **Application Document 7.5.9.1 Outline Public Rights of Way Management Plan – Suffolk (PRoWMP)** identifies the mitigation measures which would be required to maintain the operation of impacted PRoW. It also details how these mitigation measures would be managed, including who would be responsible for their management.

## 11.9 Assessment of Impacts and Likely Significant Effects

11.9.1 The assessment of the effects of the Proposed Project on health and wellbeing receptors described in this section considers the embedded and control and management mitigation measures described in Section 11.8.

### Construction Phase

#### Access to healthcare services

11.9.2 Construction activities from the Proposed Project may restrict access to hospitals, GPs, and other social infrastructure for residents in the study area, while also increasing demand for these healthcare services.

#### Increased demand for healthcare services

11.9.3 **Application Document 6.2.2.10 Part 2 Suffolk Chapter 10 Socio-economics, Recreation and Tourism** sets out that during the construction phase of the Suffolk Onshore Scheme, it is estimated that on average 65 net additional jobs would be

supported per annum. Of these, 20 jobs per annum would be expected to be taken-up by residents within the Study Area, and 45 by residents outside this area (i.e. those that live outside of a 60-minute drive time of the Site). The construction workers required to build the Suffolk Onshore Scheme may place extra demand on healthcare services if they move to the area, or if emergency treatment is required.

- 11.9.4 Baseline analysis shows that of the three GP practices local to the Suffolk Onshore Scheme, all are operating below benchmark patient to GP ratios. Additionally, all GP surgeries are accepting registrations from new patients. Across the local ward study area and East Suffolk, the level of deaths from all causes, under 75 years, deaths from respiratory diseases, and deaths from causes considered preventable, under 75 years, are lower than the national average. Parts of the LSOA study area experience high levels of deprivation with respect to the IMD (2019) barriers to housing and services domain, but deprivation with respect to the IMD (2019) health and overall deprivation is relatively low across the LSOAs. Therefore, the sensitivity of the general population is assessed to be low.
- 11.9.5 The average proportion of the population aged over 65 within the local ward study area is higher than in East Suffolk, the East of England and England, and is projected to increase as a proportion of the population much faster than in England. This sub-population is likely to have higher reliance on health services and has therefore been assessed as having a medium sensitivity to effects on healthcare services.
- 11.9.6 Workers already residing locally would be registered at a local GP and would not therefore place additional demand for services upon local GPs. It is not expected that many workers would move to live in the immediate area and access the surgeries located in the vicinity of the Proposed Project. However, assuming a worst-case, whereby all of the approximately 60 gross construction workers who are not likely to live locally require places at local GPs, this would increase the average patients per GP provision across the three surgeries from 1,287 to 1,347 patients per GP, which would remain significantly better than the national target (1,800 patients per GP).
- 11.9.7 In regard to emergency healthcare services, the capacity and demand on local services, including ambulance and emergency response teams, are not anticipated to experience any significant impact. Considering that the construction workforce constitutes only 0.3% of the population in the study area (as defined in 11.6.2), it is assumed that existing emergency services are equipped to handle any incidental needs that may arise without additional pressure on resources.
- 11.9.8 Due to the temporary nature of the construction period, minor service implications, and the overall limited scale of impacts upon healthcare services, the magnitude of these adverse impacts is assessed to be negligible.

#### Increased traffic and severance, reducing access to healthcare facilities

- 11.9.9 Residents of properties in the villages surrounding the Proposed Project attempting to access healthcare facilities are likely to use the same strategic roads as construction traffic associated with the Suffolk Onshore Scheme and workers attempting to access the site. Increased traffic flows and severance effects may inhibit local residents' ability to access healthcare facilities.
- 11.9.10 The sensitivity of the general population in the study area is assessed to be low, owing to the reasons set out in Section 11.9.4.

- 11.9.11 The over 65 sub-population in the study area is likely to have higher reliance on health services and the sensitivity has therefore been assessed to be medium, as outlined in Section 11.9.5.
- 11.9.12 **Application Document 6.2.2.7 Part 2 Suffolk Chapter 7 Traffic and Transport** sets out a reasonable worst-case assessment of the traffic and transport effects of the Suffolk Onshore Scheme during the construction phase. It is forecast that there would be up to 68 Heavy Goods Vehicles (HGVs) travelling to and from the site per day across all access routes. In addition, during the peak construction period, there are expected to be a maximum of 218 staff vehicle trips (associated with construction workers travelling to and from Site), and 33 Light Goods Vehicles (LGV) trips. This would mean there would be a daily peak of 319 vehicles, representing 638 movements. With the proposed mitigation in place (as summarised in Section 11.8 and set out in respective chapters), there are likely to be no significant effects on transport and access during the construction phase, with the majority of receptors facing negligible to minor effects due to severance. In addition, **Application Document 6.2.2.7 Part 2 Suffolk Chapter 7 Traffic and Transport** sets out the likely impact of the Proposed Project on Driver Delay (as a result of incremental increases in traffic) for all receptors within the study area, which is concluded to be not significant, and is anticipated to be short-term. Due to the fact that there would be no significant effects on transport and access during the construction phase from severance and driver delay, it can be assumed that the impact on emergency services due to severance or driver delay would therefore not be significant and would be short-term.
- 11.9.13 Given this, and the fact that any effects across the construction phase would not be long term, the overall magnitude of impact is assessed to be negligible.

#### [Access to other social infrastructure](#)

- 11.9.14 The Proposed Project may place extra demand on social infrastructure due to the presence of construction workers. In addition, increased traffic from the construction workforce may reduce accessibility to social infrastructure, other than healthcare facilities for the local population.
- 11.9.15 Given that deprivation with respect to IMD (2019) barriers to housing and services varies across the LSOA Study Area, with three of the four LSOAs falling into the 2nd, 3rd and 4th decile, but Suffolk Coastal 003C falls into the least deprived decile nationally. East Suffolk fairs averagely in terms of barriers to housing and services deprivation at 209th (where 1 is the most deprived of 317). Overall deprivation is average to low across the Study Area. Health indicators for the area show average to above average levels of health. Given this, existing social infrastructure services and their users have been assessed as having a low sensitivity.
- 11.9.16 As set out in Section 11.7, other social infrastructure in the local area includes community centres, sports facilities, and schools. The construction workers may temporarily place extra demand on these facilities if they move to the area. However, the number of workers coming from outside of the study area is very low relative to the size of its population and it is unlikely that many of the temporary workers would move to the area permanently. In respect to school places, any additional demand for places would be marginal as it would mean workers and their families moving to the area for what would likely be a temporary. Community centres and sports facilities and libraries cater for large populations, and as such, small changes in the population due to incoming workers would not affect provision.



- 11.9.17 **Application Document 6.2.2.7 Part 2 Suffolk Chapter 7 Traffic and Transport** sets out a reasonable worst-case assessment of the traffic and transport effects of the Suffolk Onshore Scheme during the construction phase. With embedded mitigation in place, there are no road links that would experience significant traffic and severance effects. In addition, **Application Document 6.2.2.7 Part 2 Suffolk Chapter 7 Traffic and Transport** sets out the likely impact of the Proposed Project on driver delay (as a result of incremental increases in traffic) for all receptors within the study area, which is concluded to not result in a significant effect, and is anticipated to be short-term.
- 11.9.18 Considering the short-term nature of the construction phase, and the fact that no significant effects are expected in relation to severance or traffic the overall magnitude of change anticipated on other social infrastructure is assessed to be negligible.

### Overall assessment of access to healthcare services

- 11.9.19 Overall, the likely effect on health and wellbeing arising from increased demand on healthcare services and reduced access to healthcare services, and access to social infrastructure during the construction phase is assessed to be a temporary **negligible (not significant)** effect for both the general population and the more vulnerable sub-population, due to the baseline level of health care provision in the local area being already considerably better than the recommended provision.

### Access to open space, leisure and play

- 11.9.20 Construction activities of the Proposed Project may intersect, or otherwise impact upon, the accessibility of open space in the study area, which could impact the health and wellbeing of local residents.
- 11.9.21 Baseline data highlights that the overall health of the general population varies. The proportion of local residents identifying themselves in 'bad' or 'very bad' health is higher than regional and national averages, however this may be attributed to the relatively older local population. Deprivation with respect to the IMD (2019) "health" and "overall deprivation" is above average across the LSOA study area, ranging from the 6th to the 9th decile. Therefore, despite poorer levels of health, there are low levels of deprivation across the LSOA study area, and hence the sensitivity of the users of open space, leisure and play facilities (both the general population and sub-population in this instance) is assessed to be low.
- 11.9.22 There are twelve areas of open space within 500 m of the Suffolk Onshore Scheme Order Limits, as set out in **Application Document 6.2.2.10 Part 2 Suffolk Chapter 10 Socio-economics, Recreation and Tourism**. There is potential for severance effects arising from construction of the Suffolk Onshore Scheme to impact residents ability to access open spaces within 500 m of the Order Limits. Taking into account the residual effect assessment results of **Application Document 6.2.2.7 Part 2 Suffolk Chapter 7 Traffic and Transport**, there are no roads assessed that would experience a significant effect in terms of severance during construction. Therefore, there are no severance effects identified between residents and open spaces as a result of the construction of the Suffolk Onshore Scheme.
- 11.9.23 **Application Document 6.2.2.10 Part 2 Suffolk Chapter 10 Socio-economics, Recreation and Tourism** further outlines the impacts of the Suffolk Onshore Scheme on open space. Three open spaces fall within the Suffolk Onshore Scheme Order Limits and have the potential to experience land use changes which have the potential to impact access to open space, leisure and play.

- 11.9.24 The River Fromus falls within the Order Limits. A permanent bridge will be required over the River Fromus to deliver the proposed permanent access route. The following options with regards to the proposed bridge over the River Fromus have been considered in the assessment as described in **Application Document 6.2.1.4 Part 1 Introduction Chapter 4 Description of the Proposed Project**:
- Option 1 - A bridge height of up to 6 m (from the ground level at the abutment to the top of the parapet) with 62 m long approach ramps; and
  - Option 2 - A bridge height of up to 4 m (from the ground level at the abutment to the top of the parapet) with 42 m long approach ramps.
- 11.9.25 The construction of the bridge will not require land take from the open space and therefore will not impact access to the open space for leisure and play. Additionally, the River Fromus is not used for recreational activities, such as fishing or mooring or recreational navigation which would make the open space a more sensitive receptor for physical health as a site of physical activity. Therefore, there will be no effects on access to open space, leisure, and play on the River Fromus as a result of the Suffolk Onshore Scheme.
- 11.9.26 The proposed marine HVDC cables would cross beneath Aldeburgh Beach, however as these are installed via a trenchless method, there will be no effects on access to open space.
- 11.9.27 The Suffolk Onshore Scheme transition point from underground HVDC cable to marine HVDC cable is proposed within North Warren Royal Society for the Protection of Birds (RSPB) Reserve. A temporary access route would be required for the installation of the HVDC cable alignment under North Warren RSPB Reserve. This utilises an existing track for foot access and a small number of 4x4 vehicle movements for monitoring purposes during the trenchless cable installation. The sensitivity of the North Warren RSPB Reserve is assessed to be high as an open space of high importance and rarity with moderate potential to access comparable alternative open spaces. During the trenchless cable installation, vehicle movements across the North Warren RSPB Reserve will be required four times a day. Therefore, the magnitude of effect is assessed to be small as an impact being temporary in nature and not leading to a change in the integrity of the open space or long-term accessibility of the open space for leisure and physical activity. The significance of effect is assessed to be minor adverse which is not considered significant.
- 11.9.28 According to **Application Document 6.2.2.7 Part 2 Suffolk Chapter 7 Traffic and Transport**, there is also not likely to be any significant effects regarding fear and intimidation, after consideration of traffic flow, speed, proportion of HGVs and the proximity of traffic to people. This means residents should not experience any adverse impacts on access to open space due to fear and intimidation associated with the Proposed Project. Given all of the above, the magnitude of impact anticipated on access to open space is assessed to be small during all phases.
- 11.9.29 Overall, the likely effect on health and wellbeing arising from impacts on accessing open space, leisure, and play facilities during the construction phase is assessed to be a temporary **minor adverse (not significant)** effect.

## Air quality

- 11.9.30 The activities of the Proposed Project have the potential to reduce air quality, due to construction dust or increased NO<sub>2</sub> and particulate matter concentrations, which could lead to adverse health effects on residents.
- 11.9.31 Baseline data outlined in **Application Document 6.2.2.8 Part 2 Suffolk Chapter 8 Air Quality** indicates good air quality in the local authority areas and in the vicinity of the Proposed Project and low rates of deaths from respiratory diseases in the local area, relative to national average rates. The sensitivity of the local population in the study area with respect to air quality is therefore assessed to be low.
- 11.9.32 The average proportion of the population aged over 65 across the local ward study area is higher than in East Suffolk, the East of England and England, and is projected to increase as a proportion of the population much faster than in England. This sub-population is likely to be more sensitive to changes in air quality. The sensitivity of the local population with respect to air quality is therefore assessed to be medium.
- 11.9.33 The assessment of potential air quality effects during the construction phase of the Suffolk Onshore Scheme is set out in **Application Document 6.2.2.8 Part 2 Suffolk Chapter 8 Air Quality**. The chapter presents an assessment of construction dust, construction vehicle emissions, and construction Non-Road Mobile Machinery (NRMM) emissions.
- 11.9.34 The construction dust risk assessment within **Application Document 6.2.2.8 Part 2 Suffolk Chapter 8 Air Quality** has identified high sensitivity human receptors within the study area, including residential properties in Saxmundham, Aldeburgh, Friston, and Benhall, as well as ecological sites including Alde-Ore Estuary RAMSAR, Outer Thames Estuary SPA, Alde-Ore Estuary SPA, Sandlings SPA, Leiston – Aldeburgh SSSI, Alde-Ore Estuary SSSI, Alde-Ore and Butley Estuaries SAC, The Haven Aldeburgh LNR, Grove Wood AW and Wildlife Site, Great Wood AW and Wildlife Site, Aldeburgh Golf Course Wildlife Site, Aldringham to Aldeburgh Disused Railway Line Wildlife Site, Benhall Green Meadows Wildlife Site and Knodishall Common Wildlife Site. The outcome of the dust risk assessment has identified that during the construction phase of the Suffolk Onshore Scheme, the potential risk of dust soiling is high for earthworks, construction and trackout, however the potential risk of human health impacts is low for earthworks, construction and trackout. However, with the implementation of mitigation measures the effect of construction dust emissions is predicted to be negligible (not significant).
- 11.9.35 The effects findings of the construction vehicle emissions and construction equipment and plant (NRMM) would also be negligible. Given the available data, taking into account that residents across the study area would experience no significant effects on air quality after implementation of appropriate mitigation, the magnitude of impact is expected to be negligible during the construction phase.
- 11.9.36 Overall, the likely effect on health and wellbeing arising from increased exposure to dust and particulate matter emissions during the construction phase is assessed to be temporary **negligible (not significant)**. For the more vulnerable sub-population, a temporary **minor adverse (not significant)** effect would result as a result, based on professional judgement.

## Noise and vibration

- 11.9.37 The construction activities of the Suffolk Onshore Scheme have the potential to lead to increases in noise and vibration, which could lead to adverse health and wellbeing effects in terms of annoyance and/or disrupt local amenities.
- 11.9.38 Baseline data outlined in **Application Document 6.2.2.9 Part 2 Suffolk Chapter 9 Noise and Vibration** indicates that the main sources of noise include road traffic from the A12 to the west and, the A1094 which runs between the A12 at Friday Street to the west and Aldeburgh to the east. Overall, the noise climate is relatively quiet due to being away from main transport routes. There are no Noise Important Areas (NIA) on the existing local public highway along routes within which may be used for construction traffic associated with the Suffolk Onshore Scheme. There are however NIAs in the wider area on main transport routes (e.g., A12 at Farnham and Little Glemham to the southwest) which are not significantly affected by the Suffolk Onshore Scheme.
- 11.9.39 **Application Document 6.2.2.9 Part 2 Suffolk Chapter 9 Noise and Vibration** also assumes that existing vibration levels in the study area are negligible. Existing proximity to the baseline noise conditions of the local transport network suggests the local population may already have a degree of exposure to transport noise that may affect annoyance outcomes, as well as being at times that may disturb sleep or reduce amenity. The sensitivity of the general population is therefore considered to be low.
- 11.9.40 **Application Document 6.2.2.9 Part 2 Suffolk Chapter 9 Noise and Vibration** indicates that there are potential significant adverse effects (without mitigation) at 29 Noise Sensitive Receptors (NSR) due to daytime construction noise, and 29 NSR due to potential weekend works, and four NSR due to potential night-time works, taking account of both the noise level and the temporal criteria for significant effects. However, National Grid has committed to employ BPM (NV01) to reduce the adverse effects of construction noise. Additional temporary noise mitigation measures will be put in place to reduce noise levels from construction plant and machinery. The assessment in **Application Document 6.2.2.9 Part 2 Suffolk Chapter 9 Noise and Vibration** shows that these significant effects can be avoided through the use of standard mitigation measures in the form of best practical means (contractor measures to control noise and vibration on site). The assessment also indicates that construction traffic noise impacts are negligible on all routes. As a result, it is concluded that noise and vibration effects during the construction phase are not expected to be significant for all NSR.
- 11.9.41 Based on the conclusions of the assessment set out in **Application Document 6.2.2.9 Part 2 Suffolk Chapter 9 Noise and Vibration** local impacts are likely to be minimal owing to the limited increased exposure to noise. Overall, the magnitude of change anticipated with respect to noise and vibration impacts on health and wellbeing during the construction phase is therefore assessed to be small.
- 11.9.42 Overall, the likely effect on health and wellbeing arising from noise and vibration impacts during the construction phase is assessed to be a temporary **minor adverse (not significant)**.

## Transport modes, access, connections, and physical activity

- 11.9.43 Residents of properties in the towns and villages surrounding the Suffolk Onshore Scheme are likely to use the same strategic roads as construction traffic associated with the Proposed Project. Increased traffic flows and severance effects may inhibit the ability of local residents to access facilities, and construction activities may intersect, or



otherwise impact upon, the accessibility of PRoW and active travel networks in the study area.

- 11.9.44 As set out in the baseline above, along with the baselines of both **Application Document 6.2.2.7 Part 2 Suffolk Chapter 7 Traffic and Transport** and **Application Document 6.2.2.10 Part 2 Suffolk Chapter 10 Socio-economics, Recreation and Tourism** there are a number of PRoW and recreational routes within the Suffolk Onshore Scheme Order Limits, as well as within the defined study areas. The impacted active travel networks have mitigation measures in place to ensure diversions where possible and closures of a short-term nature, with detail defined within **Application Document 7.5.9.1 Outline Public Rights of Way Management Plan – Suffolk (PRoWMP)**. Given this, combined with the standard of health across the study area, the sensitivity of the general population is deemed to be medium.
- 11.9.45 It is possible that local residents could experience adverse impacts related to their access to open space and PRoW for active travel due to changes in traffic caused by the construction of the Suffolk Onshore Scheme. However, **Application Document 6.2.2.7 Part 2 Suffolk Chapter 7 Traffic and Transport** sets out the assessment of severance in relation to the Proposed Project including PRoW receptors and national/regional walking and cycling route receptors. The assessment states that, with embedded mitigation in place, there are no receptors which are likely to experience significant effects regarding severance on PRoW and walking/cycling routes during the construction phase, with all receptors experiencing a negligible to minor adverse effect from a traffic and transport perspective.
- 11.9.46 Furthermore, **Application Document 6.2.2.10 Part 2 Suffolk Chapter 10 Socio-economics, Recreation and Tourism** sets out an assessment for the 21 PRoW and recreational routes which pass within the Suffolk Onshore Scheme Order Limits. This assesses that there would be no significant effects on any of the 21 PRoW and recreational routes.
- 11.9.47 These assessments within **Application Document 6.2.2.7 Part 2 Suffolk Chapter 7 Traffic and Transport** and **Application Document 6.2.2.10 Part 2 Suffolk Chapter 10 Socio-economics, Recreation and Tourism** are considered in terms of the likely impact on health and wellbeing, by which physical activity and community connectivity may be compromised for users as a result of identified significant adverse effects. However, as per control and management measure TT03, any potential temporary diversions to PRoW crossing the construction working area would be managed with access only closed for short periods while construction activities occur. This would be clearly marked at both ends with signage explaining the diversion, the duration of the diversion and a contact number for any concerns. On balance, based on these considerations, any impacts arising on community connectivity and accessibility, including PRoW and other active travel networks would be experienced by a small proportion of the population and for a short-term. Therefore, the magnitude of the impact is expected to be small.
- 11.9.48 Overall, the likely effect on health and wellbeing arising from transport, access, and connection impacts during the construction phase is assessed to be temporary **minor adverse (not significant)**.

## Employment and income

- 11.9.49 There is evidence that employment matters to health, not only from an economic standpoint, but also in terms of quality of life (Public Health England, 2019). Good quality work protects against social exclusion through the provision of income, social



interaction, a core role and identity and purpose. Therefore, the generation of jobs is assessed to be a beneficial outcome.

- 11.9.50 Baseline data with respect to employment indicates relatively high economic activity rate and relatively low unemployment in East Suffolk compared to the regional and national averages. The sensitivity of the local population with respect to employment and income is therefore assessed to be low due to its adequate capacity to experience impacts without incurring a change on the economic well-being of residents and local businesses.
- 11.9.51 As set out in **Application Document 6.2.2.10 Part 2 Suffolk Chapter 10 Socio-economics, Recreation and Tourism**, the construction period is expected to be a maximum of 72 months. National Grid estimates that the Suffolk Onshore Scheme would require a peak of 327 full-time equivalent (FTE) jobs which is expected in 2028 lasting for one day. An average of 86 gross direct FTE jobs is estimated to be required onsite per annum over the construction period. The jobs arising over the 72 month construction period would be temporary. **Application Document 6.2.2.10 Part 2 Suffolk Chapter 10 Socio-economics, Recreation and Tourism**, estimates that, after accounting for displacement, leakage and multiplier effects, the Suffolk Onshore Scheme would support, on average, 65 net additional jobs during the construction period. Of these, 20 jobs per annum would be expected to be taken-up by residents within the Study Area, and 45 by residents outside this area. The additional jobs within the study area would represent local job growth, although the overall change would be very small in the context of the overall number of jobs locally, as well as being temporary in nature. Therefore, the magnitude of change anticipated with respect to employment and income during the construction phase is assessed to be small.
- 11.9.52 Overall, the likely effect on health and wellbeing arising from employment and income impacts during the construction phase is assessed to be temporary **minor beneficial (not significant)**.

### **Social cohesion and community identity**

- 11.9.53 Roads bordering the Suffolk Onshore Scheme may be used by construction traffic which could increase traffic and community severance between neighbourhoods. This could reduce access to neighbourhood community facilities and in turn, reduce social cohesion. Additionally, impacts on landscape and visual amenity arising from the Proposed Project, during construction, could have an impact on residents' mental health. This could be linked to pride around their local area and uncertainty surrounding the Suffolk Onshore Scheme and the impacts it would have visually.
- 11.9.54 Baseline data shows that a lower proportion of people in the East of England felt like they belong strongly or fairly strongly to their immediate neighbourhood, compared to the proportion in England. This suggests a lower sense of community in the area, compared to the rest of the country. Additionally, with respect to landscape and visual amenity, given the relatively rural setting, the local area could be sensitive to changes in visual effects potentially impacting quality of life for residents, should local tranquillity be impacted. Therefore, the sensitivity of the population is assessed to be high.
- 11.9.55 **Application Document 6.2.2.7 Part 2 Suffolk Chapter 7 Traffic and Transport** sets out a reasonable worst-case assessment of the traffic and transport effects of the Suffolk Onshore Scheme during the construction phase. Assessment states that the likely impact of the Proposed Project on Driver Delay (as a result of incremental increases in traffic) for all receptors within the study area is considered to be not significant and is anticipated to be short-term. With the proposed mitigation in place,

there is likely to be no significant effects on transport and access during the construction phase. Additionally, the assessment of severance in **Application Document 6.2.2.7 Part 2 Suffolk Chapter 7 Traffic and Transport**, states that there are likely to be no significant severance effects to any receptors.

- 11.9.56 **Application Document 6.2.2.1 Part 2 Suffolk Chapter 1 Landscape and Visual** provides an assessment of the potential disruption to landscape and visual receptors as a result of the Proposed Project. The LEMP, along with other mitigation measures would help to minimise impacts. However, the assessment concludes that a number of significant effects would remain. There would be significant effects for Viewpoints 1 – 5, Viewpoints 6 and 7 for Friston Scenario 2, 15, 19 – 21, and viewpoint 22 for Friston Scenario 2, which are representative of recreational users, PRoW users, and residential receptors. There would also be significant effects for SCLCA Local Character Area B4: Fromus Valley, and SCLCA Local Character Area L1: Heveningham and Knodishall Estate Claylands, which are representative of receptors including recreational users and PRoW users. As a result of these landscape and visual impacts, local amenity may be affected due to the reduced enjoyment of these areas by recreational and residential users.
- 11.9.57 Consideration is given to the potential impact on the accommodation sector and residential properties within the study area, particularly regarding potential effects on the social environment and community cohesion. As set out in **Application Document 6.2.2.10 Part 2 Suffolk Chapter 10 Socio-economics, Recreation and Tourism**, it is anticipated that accommodation providers would be able to accommodate the construction workforce for the Suffolk Onshore Scheme without any adverse effects on the sector and would result in no significant effects. Similarly, there are no residential properties within the study area which would be affected by the Suffolk Onshore Scheme or to which access would be required that would impact social environment and community cohesion for these settlements.
- 11.9.58 Increased traffic flows and severance effects may inhibit local residents' ability to access neighbouring communities and social contacts, however the extent of this would be limited given the duration of this effect is temporary and there are likely to be no significant effects arising in terms of traffic and transport. Given the above and the limited impact of significant effects regarding landscape and visual amenity which are expected to be isolated and impact a relatively small proportion of the population, the magnitude of effect is assessed as small during the construction phase.
- 11.9.59 Overall, the likely effect on health and wellbeing arising from social cohesion and community identity impacts during the construction phase is assessed to be temporary **minor adverse (not significant)**.

## Operation and Maintenance Phase

### Access to open space, leisure, and play

- 11.9.60 Operational and maintenance activities of the Proposed Project may intersect, or otherwise impact upon, the accessibility of open space in the study area, which could impact the health and wellbeing of local residents.
- 11.9.61 As set out in Paragraph 11.9.21, the sensitivity of the population (general population and sub-population in this instance) is assessed to be low.

- 11.9.62 **Application Document 6.2.2.10 Part 2 Suffolk Chapter 10 Socio-economics, Recreation and Tourism**, sets out that there would be no significant effects on open space designations as a result of the Suffolk Onshore Scheme, including in terms of access during the operational phase.
- 11.9.63 Furthermore, the operational and maintenance phases have been scoped out of the assessment within **Application Document 6.2.2.7 Part 2 Suffolk Chapter 7 Traffic and Transport**, due to the limited number of operatives manning the site and only infrequent additional trips to site. On this basis, it can be anticipated that no severance impacts are expected to any receptors during this phase.
- 11.9.64 Given the limited impacts expected of which the severity would only result in little to no change in quality of life regarding access to open space, the magnitude of impact is assessed to be small during the operational and maintenance phase.
- 11.9.65 Overall, the likely effect on health and wellbeing arising from impacts on accessing open space, leisure, and play facilities during the operational and maintenance phase is assessed to be a **minor adverse (not significant)** for the population.

### Air quality

- 11.9.66 The operational and maintenance activities of the Proposed Project have the potential to impact air quality which could lead to adverse health effects on residents.
- 11.9.67 As set out in Paragraph 11.9.31, the sensitivity of the local population with respect to air quality is assessed to be low. The vulnerable sub-population is assessed to be medium (as per Paragraph 11.9.32).
- 11.9.68 For effects during operation and maintenance, the assessment of substation back-up generator emissions concludes that there are no significant effects. There would also be no significant effects on air quality arising from vehicle emissions due to the Proposed Project being manned by a limited number of operatives and infrequent vehicle trips. Given the available data, taking into account that residents across the study area would experience no significant effects on air quality, the magnitude of impact is expected to be negligible during the operational and maintenance phase.
- 11.9.69 Overall, the operational emission assessment determines that impacts to human health would not result in significant effects due to limited changes in particulate concentrations, and thus the likely effect on health and wellbeing arising from air quality impacts during the operational and maintenance phase is assessed to be **negligible (not significant)**. For the more vulnerable sub-population, a **minor adverse (not significant)** effect would result, based on professional judgement.

### Noise and vibration

- 11.9.70 The operational and maintenance activities of the Proposed Project have the potential to lead to increases in noise and vibration, which could lead to adverse health and wellbeing effects in terms of annoyance and/or disrupt local amenities.
- 11.9.71 As set out in Paragraph 11.9.39, considering baseline data within **Application Document 6.2.2.9 Part 2 Suffolk Chapter 9 Noise and Vibration**, the sensitivity of the general population is considered to be low.
- 11.9.72 Within **Application Document 6.2.2.9 Part 2 Suffolk Chapter 9 Noise and Vibration**, the assessment of operational noise with standard embedded mitigation in place, concludes that the effects from operational noise from the proposed Saxmundham

Converter Station on all nearby NSR, has been assessed as having a small magnitude impact, during both daytime and night-time periods, taking account of context. This would result in a minor adverse effect at all nearby NSR, which is considered to be not significant.

- 11.9.73 With regards to the proposed Friston Substation, there are no sources of operational noise (such as transformers) during the normal operation of the substation. Operational noise during the normal operation of the proposed Friston Substation would therefore be negligible and not significant.
- 11.9.74 Noise and vibration effects from routine operational maintenance are not expected to generate high levels of noise or vibration and would generally be relatively short-term activities. Noise and vibration effects from more substantial maintenance activities would be expected to be similar to those during the construction phase. In these circumstances the contractor would undertake detailed noise and vibration assessments and determine best practicable means to reduce the effects of noise and vibration at nearby NSR. Noise and vibration from all maintenance activities would therefore be negligible for all NSR. Overall, the magnitude of change anticipated with respect to noise and vibration impacts on health and wellbeing during the operational and maintenance phase is therefore assessed to be small.
- 11.9.75 Overall, the likely effect on health and wellbeing arising from noise and vibration impacts during the operational and maintenance phase is assessed to be **minor adverse (not significant)**.

#### **Transport modes, access, connections and physical activity**

- 11.9.76 Residents of properties in the towns and villages surrounding the Proposed Project attempting to access facilities are likely to use the same strategic roads as any operational traffic associated with the Proposed Project. Increased traffic flows and severance effects may inhibit the ability of local residents to access these facilities or impact the accessibility of PRow and active travel networks in the study area.
- 11.9.77 Owing to the reasons set out in paragraph 11.9.44, the sensitivity of the general population is deemed to be medium.
- 11.9.78 The operational and maintenance phases have been scoped out of the assessment within **Application Document 6.2.2.7 Part 2 Suffolk Chapter 7 Traffic and Transport**, due to the limited number of operatives manning the site and only infrequent additional trips to site. Within the ES, the proposed permanent routes which would be used during the operational and maintenance phase are shown on **Application Document 6.4.1.4.19 Suffolk Onshore Scheme Traffic Routes** during Construction and Operation. The Proposed Project is expected to result in the permanent diversion of PRow E-354/006/0 (S-P9) and PRow E-491/005/0 (S-P15) and further details relating to these are set out within **Application Document 7.5.9.1 Outline PRowMP – Suffolk**.
- 11.9.79 Furthermore, **Application Document 6.2.2.10 Part 2 Suffolk Chapter 10 Socio-economics, Recreation and Tourism** concludes there would be no significant effects to the PRow or recreational routes as a result of the Suffolk Onshore Scheme during the operational phase. There would be permanent effects on Footpath 260/017/0, Footpath 491/005/0 and Footpath 260/016/0 due to operational vehicle movements on permanent access roads that cross these footpaths. However, these would not be considered significant given the vehicle movements are anticipated to be minimal and unlikely to create disruption for users of the PRow. Given this, there is potential for only

minor changes to quality-of-life and so the overall magnitude of impact is assessed to be small.

- 11.9.80 Overall, the likely effect on health and wellbeing arising from transport, access and connection impacts during the operational and maintenance phase is assessed to be a **minor adverse effect (not significant)**.

### **Social cohesion and community identity**

- 11.9.81 As set out in Paragraph 11.9.54, the sensitivity of the population is assessed to be high. This is based on baseline data which shows that a lower proportion of people in the East of England feel like they belong strongly or fairly strongly to their immediate neighbourhood compared to the proportion in England, combined with the sensitivity of the local area to changes in visual effects, potentially impacting quality of life for residents.
- 11.9.82 The operational and maintenance phases have been scoped out of the assessment within **Application Document 6.2.2.7 Part 2 Suffolk Chapter 7 Traffic and Transport**, due to the limited number of operatives manning the site and only infrequent additional trips to site. On this basis, it can be anticipated that no traffic flow and severance impacts are expected to any receptors during this phase.
- 11.9.83 **Application Document 6.2.2.1 Part 2 Suffolk Chapter 1 Landscape and Visual** provides an assessment of the potential disruption to landscape and visual receptors as a result of the Proposed Project in the operational and maintenance phase. Whilst a LEMP has been produced, along with other mitigation measures to help manage impact, there are likely to be a small number of significant effects, according to the assessment. This includes receptors Viewpoints 1 – 5, Viewpoints 6 and 7 for Friston Scenario 2, 15, and 19 – 21, and viewpoint 22 for Friston Scenario 2, which are representative of recreational users, PRow users, and residential receptors. This also includes receptors SCLCA Local Character Area B4: Fromus Valley, and SCLCA Local Character Area L1: Heveningham and Knodishall Estate Claylands, which are representative of receptors including recreational users and PRow users. As a result of these landscape and visual impacts, local amenity may be affected due to the reduced enjoyment of these areas by recreational and residential users.
- 11.9.84 As set out in **Application Document 6.2.2.10 Part 2 Chapter 10 Socio-economics, Recreation and Tourism**, no permanent effects on residential properties (in terms of physical changes or disruptions to residential communities) within the study area are anticipated from the Suffolk Onshore Scheme, including any required access during the operational and maintenance phase, that would affect the social environment or community cohesion in these settlements.
- 11.9.85 Given the above, the magnitude of impact is assessed as small during the operational and maintenance phase in terms of any adverse impact on social cohesion and community identity, sense of belonging and sense of control for the local population.
- 11.9.86 Overall, the likely effect on health and wellbeing arising from social cohesion and community identity impacts during the operational and maintenance phase is assessed to be **minor adverse (not significant)**.

### **Decommissioning Phase**

- 11.9.87 In the event that the Suffolk Onshore Scheme is decommissioned, it is anticipated that similar methods, workforce numbers, equipment, construction compounds and working



hours to that used during construction would be required during decommissioning. In addition, the total estimated duration of decommissioning is 2 years compared to 5 years for construction.

- 11.9.88 It is therefore considered reasonable to assume that the impacts of the decommissioning phase would be the same as, or not greater than, the construction phase, in line with assessment presented throughout paragraph 11.9.2 to 11.9.86. Therefore, and given that the exact timing of this scenario is unknown, the assessment of the construction phase has been adopted to determine the anticipated impact of the Suffolk Onshore Scheme during its decommissioning phase. These residual effects and conclusions are applicable for the decommissioning phase.
- 11.9.89 The decommissioning phase assessment of impacts and likely significant effects would be reviewed at the time of decommissioning.

## **11.10 Additional Mitigation**

- 11.10.1 After considering embedded and control and management measures no likely significant adverse effects have been identified. Additional mitigation measures are therefore not required to further reduce, mitigate or offset likely significant adverse environmental effects on health and wellbeing receptors.

## **11.11 Residual Effects and Conclusions**

- 11.11.1 As described above, no additional mitigation measures are required to avoid or reduce likely significant effects on health and wellbeing receptors. Therefore, residual effects are as discussed in Section 11.9.
- 11.11.2 The assessment has concluded that there are no likely significant residual effects in relation to health and wellbeing receptors during construction, operation and maintenance and decommissioning of the Suffolk Onshore Scheme.

## **11.12 Sensitivity Testing**

- 11.12.1 Under the terms of the DCO, construction could commence in any year up to five years from the granting of the DCO, which is assumed to be 2026. It is considered that the effects reported in Section 11.9 would not differ should the works commence in any year up to year five. This is because the baseline is not expected to alter materially in that period based on current information and there would be no change in the impact magnitudes that have been assessed.



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