

# **Great Yarmouth Third River Crossing**

## **Application for Development Consent Order**

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### **Document 7.1: Case for the Scheme (including Planning Statement)**

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#### **Planning Act 2008**

#### **The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (as amended) (“APFP”)**

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## Foreword

This Case for the Scheme (including Planning Statement) (“the Case for the Scheme”) accompanies an application (“the Application”) submitted by Norfolk County Council (“the Applicant”) to the Secretary of State for a Development Consent Order (‘DCO’) under the Planning Act 2008<sup>1</sup>.

If made by the Secretary of State, the DCO would grant development consent for the construction, operation and maintenance of a new bascule bridge highway crossing of the River Yare in Great Yarmouth, and which is referred to in the Application as the Great Yarmouth Third River Crossing (“the Scheme”).

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (as amended) require that an application for a DCO be accompanied by the documents specified at Regulation 5(2)(a) to (r). This is one of those documents and is specified at Regulation 5(2)(q).

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## Glossary of Abbreviations and Defined Terms

Term	Definition
<b>The Applicant</b>	Norfolk County Council (in its capacity as Highway Authority and promoter of the Scheme).
<b>Application Site</b>	The land bounded by the Order Limits, as shown by a red line on the Land Plans (document reference 2.5) and the Works Plans (document reference 2.6) and being land within which the authorised development may be carried out.
<b>The APFP Regulations</b>	The Infrastructure Planning (Applications - Prescribed Forms and Procedure) Regulations 2009 (SI 2009/2264).
<b>Beacon Park Enterprise Zone Site</b>	15.7 hectare site within the Great Yarmouth and Lowestoft Enterprise Zone which falls under the broader 'Space to Innovate' Enterprise Zone.
<b>Bridge Lowered</b>	Position of the bascule bridge where it is closed to vessels, and open to vehicular traffic, cyclists and pedestrians.
<b>Bridge Raised</b>	Position of the bascule bridge where it is closed to vehicular traffic, cyclists and pedestrians, and open to vessels.
<b>Crossing</b>	The combined double leaf bascule bridge and the Southtown Road bridge structure (i.e. from it's junction with the new roundabout on William Adams Way to the new junction on South Denes Road).
<b>Double Leaf Bascule Bridge</b>	Opening span and mechanism needed to operate the bridge.
<b>Eastern Power Networks plc</b>	The licenced distribution operator for the distribution electricity network in Great Yarmouth.
<b>The EIA Regulations</b>	The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017.
<b>Great Yarmouth Enterprise Zone Sites</b>	Collective term for the South Denes and Beacon Park Enterprise Zone Sites, which form part of the broader Great Yarmouth and Lowestoft Enterprise Zone.
<b>The Highways and Railways NSIP Order</b>	The Highway and Railway (Nationally Significant Infrastructure Project) Order 2013 (SI 2013/1883).



<b>Kingsgate Community Centre</b>	Kingsgate Community Centre is occupied by the Kingsgate Community Church, providing regular community events/activities, and a café.
<b>Knuckles</b>	<p>The areas of the River Yare into which the proposed development extends (from the existing quay walls). These areas consist of the following:</p> <ul style="list-style-type: none"> <li>- Physical protection systems (which are protective structures provided adjacent to the bascule abutments) to fully or partial absorb the design ship collision loads from an aberrant ship or vessel. These protection systems are located on both the south and north of each bascule abutment. They consist of sheet piles driven to dense sands infilled with stone or granular material and capped with a reinforced concrete slab.</li> <li>- A bascule abutment which accommodates and allows the movement of the counterweight and houses the mechanical, electrical, instrumentation, control and automation systems. The bascule abutment consists of driven piles and reinforced concrete slabs and walls.</li> <li>- Plant and control rooms on the western side and plant rooms on the eastern side.</li> <li>- Vessel Impact Protection Systems located at the interface between the physical protection systems, the bascule abutments and the River Yare.</li> </ul> <p>There are knuckles on both the east and west sides of the River Yare.</p>
<b>MIND Centre and Grounds</b>	Land located to the south of Queen Anne's Road, comprised within Plot Nos. 1-27, 2-03, 2-05, 2-06 and 2-07 on the Land Plans (document reference 2.5), which is currently leased to Great Yarmouth and Waveney Mind for the purposes of its charitable aims and objectives.
<b>NCC</b>	Norfolk County Council (other than in its Highway Authority role as promoter of the Scheme).
<b>New Dual Carriageway Road</b>	Description of road type on the Crossing.
<b>NPS</b>	National Policy Statement.
<b>NPS for Ports</b>	National Policy Statement for Ports.

<b>NPS NN</b>	National Policy Statement for National Networks.
<b>Order Land</b>	Land that is proposed to be acquired and land over which new rights are proposed to be created and acquired, as shown on the Land Plans (document reference 2.5).
<b>Opening Span</b>	Length of bridge structure that opens.
<b>Order Limits</b>	Limits of land within which the authorised development may be carried out, as shown on the Land Plans (document reference 2.5) and the Works Plans (document reference 2.6).
<b>The Outer Harbour</b>	Part of the Port of Great Yarmouth, the deep water Outer Harbour (completed in 2010) is situated at the southern end of the South Denes peninsula and offers direct access to the North Sea.
<b>The Planning Act</b>	The Planning Act 2008.
<b>The Port</b>	The Port of Great Yarmouth, comprising both commercial quays on both sides of the River Yare and Outer Harbour and within the jurisdiction of the Great Yarmouth Port Authority.
<b>Principal Application Site</b>	The land comprised in the Application Site but excluding the Satellite Application Sites.
<b>Proposed Scheme</b>	Great Yarmouth Third River Crossing project at the time of statutory pre-application consultation.
<b>Proposed Scheme Boundary</b>	The boundary of the land within which the Proposed Scheme was proposed to be carried out, at the time of statutory pre-application consultation, as delineated by a red line on Figure 2.3 of the PEIR.
<b>Reinforced Earth Embankment</b>	A reinforced earth or reinforced soil embankment is a general term which refers to the use of placed or in situ soil or other material in which tensile reinforcements act through interface friction, bearing or other means to improve stability. The reinforced earth embankment is supported by driven piles and pilecaps.
<b>Satellite Application Sites</b>	The parts of the Application Site within which Work Number 13 may be carried out, as shown on the Works Plans (document reference 2.6) and described in Schedule 1 to the draft DCO (document reference 3.1).
<b>Scheme</b>	The Great Yarmouth Third River Crossing project for which the Applicant seeks development consent.

<b>Southtown Road Bridge</b>	Bridge structure over Southtown Road.
<b>South Denes Enterprise Zone Site</b>	58.8 hectare site within the Great Yarmouth and Lowestoft Enterprise Zone which falls under the broader 'Space to Innovate' Enterprise Zone.
<b>Statutory Designated Sites</b>	Sites which have been designated under UK and in some cases European or international legislation which protects areas identified as being of special nature conservation importance.
<b>Study Area</b>	The boundary/extents of a specific assessment.
<b>Underpass</b>	The underpass beneath the Crossing, located on the east side of the River Yare, to be constructed to provide a new private means of access for the benefit of owners and occupiers of adjoining land.
<b>Vessel Impact Protection Systems</b>	These are specific protection systems located at the interface between the physical protection system, the bascule abutments and the River Yare. These systems will take the form of fenders or equivalent (formed of different materials) which are used to deflect or redirect an aberrant vessel away from the knuckles. The fenders are designed to provide required levels of protection to both vessels, the "knuckles" and the fenders themselves in accordance with national and international recommendations for the protection of bridge structures on navigable waterways.
<b>Vessel Waiting Facilities</b>	Provision of vessel waiting facilities to the north and south of the Crossing, either as floating pontoons or additional fendering to the existing berths, including any dredging and quay strengthening works that may be required.

Abbreviation	Definition
AAP	Area Action Plan
AQMA	Air Quality Management Areas
AST	Appraisal Summary Table
BCR	Benefit to Cost Ratio
BGL	Below Ground Level
BGS	British Geological Survey
BoR	Book of Reference
BS	British Standard
CA	Compulsory Acquisition (a power to acquire land, or to create and acquire new rights over land, compulsorily, for the purposes of constructing, operating and maintaining the Scheme)
CDE	Construction, Demolition and Excavation
CEA	Cumulative Effects Assessment
CftS	Case for the Scheme
COBA-LT	Cost and Benefits to Accidents – Light Touch
CoCP	Code of Construction Practice
CO <sub>2</sub>	Carbon dioxide
CPNI	Centre for the Protection of National Infrastructure
CTSA	Counter Terrorism Security Advisor
DCLG	Department for Communities and Local Government (as was)
DCO	Development Consent Order
Defra	Department for Environment, Food and Rural Affairs
DfT	Department for Transport
DM	Do Minimum
DML	Deemed Marine Licence
DMRB	Design Manual for Roads and Bridges
DR	Design Report
DS	Do Something
EA	Environment Agency
EAR	Economic Appraisal Report
EAST	Early Assessment Sifting Tool

<b>EC</b>	European Commission
<b>EIA</b>	Environmental Impact Assessment
<b>EIMP</b>	East Inshore Marine Plan
<b>EQIA</b>	Equalities Impact Assessment
<b>ES</b>	Environmental Statement
<b>EU</b>	European Union
<b>FBC</b>	Full Business Case
<b>FRA</b>	Flood Risk Assessment
<b>FTE</b>	Full Time Equivalent
<b>GA</b>	General Arrangement
<b>GHG</b>	Greenhouse Gas
<b>GVA</b>	Gross Value Added
<b>GYBC</b>	Great Yarmouth Borough Council
<b>GYPA</b>	Great Yarmouth Port Authority
<b>GYPC</b>	Great Yarmouth Port Company
<b>GYTRC</b>	Great Yarmouth Third River Crossing
<b>HE</b>	Highways England
<b>HGV</b>	Heavy Goods Vehicles
<b>HRA</b>	Habitat Regulations Assessment
<b>HSE</b>	Health and Safety Executive
<b>HVM</b>	Hostile Vehicle Mitigation
<b>IMD</b>	Indices of Multiple Deprivation
<b>ISO</b>	International Standards Organisation
<b>LDO</b>	Local Development Order
<b>LLFA</b>	Lead Local Flood Authority
<b>LNR</b>	Local Nature Reserve
<b>LoDs</b>	Limits of Deviation
<b>LSE</b>	Likely Significant Effects
<b>LSOAs</b>	Lower Layer Super Output Areas
<b>MAD</b>	Major Accidents and/or Disasters
<b>MHCLG</b>	Ministry of Housing Communities and Local Government
<b>MMO</b>	Marine Management Organisation

<b>MMQ</b>	Mean Maximum Queue
<b>MPS</b>	Marine Policy Statement
<b>NCC</b>	Norfolk County Council (in all capacities other than Highway Authority acting as promoter of the Proposed Scheme)
<b>NHER</b>	Norfolk Historic Environment Record
<b>NIA</b>	Noise Important Areas
<b>NMU</b>	Non-motorised use
<b>NPPF</b>	National Planning Policy Framework (2019)
<b>NPV</b>	Net Present Value
<b>NRA</b>	Navigational Risk Assessment
<b>NSIP</b>	Nationally Significant Infrastructure Project
<b>NSR</b>	Noise Sensitive Receptor
<b>OAR</b>	Option Assessment Report
<b>OBC</b>	Outline Business Case
<b>OCoCP</b>	Outline Code of Construction Practice
<b>ONS</b>	Office of National Statistics
<b>OS</b>	Ordnance Survey
<b>PEIR</b>	Preliminary Environmental Information Report
<b>PGR</b>	Pedestrian Guard Railing
<b>PIA</b>	Personal Injury Accidents
<b>PINS</b>	Planning Inspectorate
<b>PMA</b>	Private Means of Access
<b>PRoW</b>	Public Rights of Way
<b>PVB</b>	Present Value of Benefits
<b>PVC</b>	Present Value of Costs
<b>RTC</b>	Road Traffic Collision
<b>SAC</b>	Special Areas of Conservation
<b>SATURN</b>	Simulation and Assignment of Traffic to Urban Road Networks
<b>SDI</b>	Social and Distributional Impact
<b>SoR</b>	Statement of Reasons
<b>SoS</b>	Secretary of State
<b>SPA</b>	Special Protection Area

<b>SRN</b>	Strategic Road Network
<b>SSSI</b>	Site of Special Scientific Interest
<b>SWMP</b>	Site Waste Management Plan
<b>SuDS</b>	Sustainable Drainage Systems
<b>TA</b>	Transport Assessment
<b>TAG</b>	Transport Appraisal Guidance
<b>TP</b>	Temporary Possession (a power to use and possess land temporarily for the purposes of constructing and maintaining the Scheme)
<b>TPO</b>	Tree Preservation Order
<b>TUBA</b>	Transport Users Benefits Appraisal
<b>UK</b>	United Kingdom
<b>UKCP09</b>	UK Climate Projections 2009
<b>UKCOP18</b>	UK Climate Projections 2018
<b>VfM</b>	Value for Money
<b>VMS</b>	Variable Message Sign
<b>VOC</b>	Vehicle Operating Costs
<b>VS</b>	Vehicle Security Barrier
<b>WebTAG</b>	Web Transport Analysis Guidance
<b>WFD</b>	Water Framework Directive
<b>WITA</b>	Wider Impacts in Transport Appraisal
<b>ZTV</b>	Zone of Theoretical Visibility

## Executive Summary

- ES.1 This Case for the Scheme (including Planning Statement) (“the Case for the Scheme”) has been prepared to accompany an application by Norfolk County Council (“the Applicant”) for a Development Consent Order (DCO) in relation to the Great Yarmouth Third River Crossing (the “Scheme”) in Great Yarmouth.
- ES.2 The Scheme is located within the Principal Application Site (at the River Yare in Great Yarmouth between the A47 at Harfrey’s Roundabout on the western side and the A1243 South Denes Road on the eastern side) and the Satellite Application Sites.
- ES.3 Great Yarmouth’s highway network is formed of both the Strategic Road Network (SRN) maintained by Highways England (HE), and the local highway network, which is maintained by Norfolk County Council (NCC). The need for the Scheme stems from the current lack of connectivity between the Strategic Road Network (SRN) and the South Denes peninsula, which is home to the Port and surrounding employment areas, including the South Denes Enterprise Zone (EZ) Site. The future growth of the Port as a nationally significant service hub for the offshore energy industries is constrained by the lack of a direct access to the SRN. Congestion caused by convergence of Port-related and local traffic on links and at junctions surrounding the town centre, leads to queueing and delays on the local highway network, particularly around Haven Bridge. These issues also hamper the regeneration aspirations of Great Yarmouth town centre and stifle links and resulting synergies between employment areas in South Denes, including the South Denes EZ Site, and those to the west of the river at Harfrey’s Industrial Estate, Gapton Hall, Southtown, Gorleston and Beacon Park (including the Beacon Park EZ). These issues combine to form a compelling case for a third river crossing.
- ES.4 The National Policy Statement for National Networks<sup>2</sup> (“NPS NN”) sets out the need for development of national networks. The document states “*the Government will deliver national networks that meet the country’s long-term needs; supporting a prosperous and competitive economy and improving overall quality of life, as part of a wider transport system*”. The link between effective infrastructure and economic prosperity is echoed in the Industrial Strategy (BEIS, 2017)<sup>3</sup> which highlights that “*infrastructure is essential in underpinning of our lives and work, and having modern and accessible infrastructure throughout the country is essential to our growth and prosperity*”. Furthermore, “*providing the right infrastructure in the right places boosts the earning power of people, communities and our businesses*”. One of the five foundations of the strategy is to deliver “*a major upgrade to the UK’s infrastructure*”.
- ES.5 The Department for Transport’s (DfT) Transport Investment Strategy<sup>4</sup> aims to “*create a more reliable, less congested, and better-connected transport*”



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*network that works for the users who rely on it* and aspires to *“build a stronger, more balanced economy by enhancing productivity and responding to local growth priorities”*. The Transport Strategy clearly highlights the need to create better connectivity on the transport network in order to encourage economic growth.

- ES.6 The contribution our ports make to the country’s economy has recently been highlighted by the DfT in a study into England’s port connectivity (Transport Infrastructure for our global future, A Study of England’s Port Connectivity)<sup>5</sup> (“the Port Connectivity Study”). The Port Connectivity Study states that *“at present around 95% of all goods entering and leaving the UK are moved by sea and the UK port sector directly contributes £1.7billion to the UK economy”*. The Port Connectivity Study also notes that *“if our ports are to continue to thrive then the national, regional and local infrastructure supporting them has to be effective and efficient”*. It also recognises that renewable energy sectors are closely linked to the port industry and that *“port access will be an issue for their supply chains and their employees”*.
- ES.7 The need for connectivity between ports and the SRN is further highlighted in the National Infrastructure Delivery Plan 2016-2021<sup>6</sup> (“the NIDP”) which sets out how the Government will support the delivery of key infrastructure projects and programmes within the period of the current Parliament. It states that the SRN is *“vital to businesses and the successful functioning of the economy”* and recognises that *“with two thirds of all freight being carried on the Strategic Road Network, effective road links to ports are vital to allow goods and services to be moved into and around the country efficiently and reliably”*.
- ES.8 The NPS NN, Industrial Strategy, the Port Connectivity Study and NIDP all emphasise the significant relationship between the provision of essential infrastructure and economic growth, and in particular the importance of effective links between the SRN and ports. A third river crossing in Great Yarmouth is essential to provide a more direct route between the SRN and the Port and would enhance the resilience of the highway network as a whole. The Scheme is in line with, and makes a direct contribution to, realising the aspirations set out in national policy and has been deemed to be nationally significant by the SoS.
- ES.9 In addition to setting out the urgent transport and regeneration need for the Scheme, this document provides an overview of the options and alternatives considered in order to determine the design for which development consent is sought. An overarching assessment of the Scheme against the relevant national and local planning policy is provided. A detailed assessment of the Scheme’s conformance with the ‘Generic impacts’ policies outlined in the NPS

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NN and the National Policy Statement for Ports (NPS for Ports) is provided in **Appendix A**.

ES.10 This document sets out that the key benefits of the Scheme are the fulfilment of the following objectives, and explains how they are met:

- To support Great Yarmouth as a centre for both offshore renewable energy and the offshore oil and gas industry, enabling the delivery of renewable energy Nationally Significant Infrastructure Projects (NSIPs) and enhancing the Port's role as an international gateway;
- To improve access and strategic connectivity between Great Yarmouth Port and the national road network thereby supporting and promoting economic and employment growth (particularly in the Enterprise Zone);
- To support the regeneration of Great Yarmouth, including the town centre and seafront, helping the visitor and retail economy;
- To improve regional and local access by enhancing the resilience of the local road network, reducing congestion and improving journey time reliability;
- To improve safety and to reduce road casualties and accidents, in part by reducing heavy traffic from unsuitable routes within the town centre;
- To improve access to and from the Great Yarmouth peninsula for pedestrians, cyclists and buses, encouraging more sustainable modes of transport and also reducing community severance; and
- To protect and enhance the environment by reducing emissions of greenhouse gases and minimising the environmental impact of the Scheme.

ES.11 The Case for the Scheme demonstrates that, notwithstanding the disbenefits identified, there is an overriding case for the Scheme, which delivers an essential piece of infrastructure linking the SRN to the Port and wider South Denes peninsula. The Scheme will reduce congestion, as well as improving journey times and resilience across the highway network, including the SRN. The increased highway capacity will in turn have positive ramifications for both community connectivity and economic growth, particularly for the Port and energy sector, thereby consolidating Great Yarmouth's role as an international gateway. The relationship between the provision of essential infrastructure and economic growth is well documented throughout Government policy and it is clear that the Scheme supports the economic growth ambitions of Great Yarmouth, both locally and in the wider sub-region, particularly in the energy sector. This document demonstrates that the Scheme successfully delivers its defined objectives.

# 1 Introduction

## 1.1 Purpose of the Case for the Scheme

- 1.1.1 This Case for the Scheme (including Planning Statement) (“the Case for the Scheme”) relates to an application (“the Application”) submitted by the Norfolk County Council (“the Applicant”) to the Planning Inspectorate, on behalf of the Secretary of State (SoS) for Transport, under Section 37 of the Planning Act 2008.
- 1.1.2 If made by the SoS, the DCO will grant development consent for the construction, operation and maintenance of a new crossing of the River Yare in Great Yarmouth, consisting of a new dual carriageway road, including a road bridge across the river, linking the A47 at Harfrey's Roundabout on the western side of the river to the A1243 South Denes Road on the eastern side. The Scheme would feature an opening span double leaf bascule (lifting) bridge across the river, involving the construction of two new 'knuckles' extending the quay wall into the river to support the bridge. The Scheme would include a bridge span over the existing Southtown Road on the western side of the river, and a bridge span on the eastern side of the river to provide an underpass for existing businesses, enabling the new dual carriageway road to rise westwards towards the crest of the new crossing. A description of the Scheme, including its key features, is provided in **Section 2** of this document.
- 1.1.3 The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (as amended) require that an application for a DCO be accompanied by the documents specified at Regulation 5(2)(a) to (r). This is one of those documents and is specified at Regulation 5(2)(q).
- 1.1.4 After providing a descriptive overview of the Scheme and its locational context, this document outlines the background to the Scheme, and considers the need which the Scheme is intended to address. The Case for the Scheme further describes how the design of the Scheme has evolved, and how, and why, alternatives were considered and discounted. It then explains how the Scheme addresses the identified need.
- 1.1.5 This document also considers how the Scheme complies with relevant policies. Reference is made in particular to sections 104(2) and (3) of the Planning Act, which provide the context for the policy assessment of the Scheme, the relevant national policy statement being the National Policy Statement for National Networks (NPS NN). Although not directly related to the Scheme, the National Policy Statement for Ports (NPS for Ports) is also considered where appropriate. The relevant marine policy documents are the UK Marine Policy Statement<sup>7</sup> (“the MPS”) and the East Inshore and East

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Offshore Marine Plans<sup>8</sup> (“the EIEOMP”). Other national and local policy of relevance to the Scheme is also considered within the Case for the Scheme.

**1.1.6** The Scheme is Environmental Impact Assessment (EIA) development for the purposes of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (“the EIA Regulations”). It therefore requires environmental impact assessment, and an Environmental Statement (ES) (DCO Document **6.1 – 6.3**) accompanies the application for a DCO. To avoid duplication, the Case for the Scheme draws on content within the ES, in particular the Scheme description, the consideration of alternatives and the identification and consideration of the likely significant effects of the Scheme. The Case for the Scheme should therefore be read alongside the ES.

**1.1.7** This document has been prepared in accordance with the Planning Inspectorate’s (“PINS”) Advice Note 6: ‘Preparation and Submission of Application Documents’<sup>9</sup>.

## **1.2 Structure of the Case for the Scheme**

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**1.2.1** The document is structured as follows:

- **Section 1** provides an introduction to the Case for the Scheme document, together with a summary of the process completed under section 35 of the Planning Act;
- **Section 2** sets out the Scheme description;
- **Section 3** describes the Application Site and wider context;
- **Section 4** explains the need for the Scheme, in terms of the transport need and regeneration need. Scheme objectives are also identified and described;
- **Section 5** reviews the Scheme in the context of how the design has evolved to meet the needs and objectives identified in **Section 4**;
- **Section 6** outlines the planning context created by the Planning Act and identifies the requirements of the NPS NN, demonstrating how the Scheme meets the requirements.
- **Section 7** provides an assessment of the Scheme against the policies set out in the NPS NN, the NPS for Ports, the MPS and the EIEOMP. An assessment of the Scheme against the ‘Generic impacts’ outlined in Part 5 of both the NPS NN and the NPS for Ports is included in **Appendix A**. This appendix provides a breakdown of each policy and sets out how the Scheme conforms with the guidance and aspirations presented within that policy.
- **Section 8** identifies the requirements of other relevant national and local planning policy including the National Planning Policy Framework<sup>10</sup> (“the NPPF”), the Local Development Plan<sup>11</sup> and emerging Local Plan documents<sup>12</sup>, and demonstrates how the Scheme complies with such policy.

- **Section 9** identifies and summarises the benefits and disbenefits of the Scheme and addresses the legal obligations relevant to decision-making, in recognition of the criteria in section 104 of the PA 2008; and
- **Section 10** provides a conclusion for the Case for the Scheme.

### 1.3 Direction of Secretary of State under Section 35 of the Planning Act

1.3.1 The Scheme does not meet the threshold criteria for a Nationally Significant Infrastructure Project (NSIP) set out in Section 3 of the Highway and Railway (Nationally Significant Infrastructure Project) Order 2013, amending Section 22 of the Planning Act 2008, in that the Highway Authority is not the SoS. Nevertheless, in a Direction made under Section 35 of the Planning Act dated 26<sup>th</sup> February 2018 ("the Section 35 Direction"), the SoS confirmed that he was satisfied that the Scheme was nationally significant<sup>13</sup> (i.e. a NSIP) and directed that the Scheme, together with any matters associated with it, was to be treated as development for which development consent is required. The consequence of the Section 35 Direction is that the Scheme is now subject to the consenting regime comprised in the Planning Act and associated subordinate legislation (including the EIA Regulations). The Scheme therefore cannot proceed unless the SoS decides to grant development consent by making a DCO under Section 114 of the Planning Act.

1.3.2 In the Section 35 Direction, the SoS stated that he was of the opinion that the Scheme was nationally significant for the following reasons:

- *"The Port has a nationally significant role in the renewable energy sector and the offshore gas and oil industry and the scheme will substantially improve connectivity and resilience for port activities;*
- *The scheme will support the delivery of existing and potential renewable energy NSIPs; and*
- *Supports the Port's role as an International Gateway".*

1.3.3 It was also noted that, in addition, *"the scheme will improve the offer of the Port through better connectivity to the Enterprise Zone"*. A copy of the Section 35 Direction is provided in **Appendix B**.

## 2 Scheme Description

### 2.1 Overview of the Scheme

**2.1.1** The Scheme involves the construction, operation and maintenance of a new crossing of the River Yare in Great Yarmouth. The Scheme consists of a new dual carriageway road, including a road bridge across the river, linking the A47 at Harfrey's Roundabout on the western side of the river to the A1243 South Denes Road on the eastern side. The Scheme would feature an opening span double leaf bascule (lifting) bridge across the river, involving the construction of two new 'knuckles' extending the quay wall into the river to support the bridge. The Scheme would include a bridge span over the existing Southtown Road on the western side of the river, and a bridge span on the eastern side of the river to provide an underpass for existing businesses, enabling the new dual carriageway road to rise westwards towards the crest of the new crossing.

**2.1.2** **Chapter 2** of Volume I of the ES (DCO Document **6.1**) provides a full description of the Scheme and is accompanied by the General Arrangement (GA) Plans (DCO Document **2.2**).

**2.1.3** In summary, if constructed, the Scheme would comprise the following principal elements:

- A new dual carriageway road, crossing the River Yare in an east-west orientation, comprising of:
  - A new double-leaf bascule bridge providing an opening span to facilitate vessel movement within the river. This would include structures to support and accommodate the operational requirements of the bridge-opening mechanism, including counterweights below the level of the bridge deck. The bridge would be supported on driven piles;
  - New substructures, supported by driven piles, to support the double leaf bascule bridge within the existing quays either side of the river and within the river itself, requiring new permanent "knuckle" walls, creating cofferdams in the waterway to accommodate their construction;
  - A new five-arm roundabout connecting the new dual carriageway road with Suffolk Road, William Adams Way and the western end of Queen Anne's Road. Sections of the new five arm roundabout would be supported on driven piles where deep soft ground is encountered;
  - A single-span bridge over Southtown Road, with reinforced earth embankments joining that bridge to the new roundabout at William Adams

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Way. Southtown Road bridge and the reinforced earth embankments would be supported on driven piles;

- A single-span bridge to provide an underpass on the eastern side of the river, with reinforced earth embankments joining that single span bridge to South Denes Road. The underpass and reinforced earth embankments would be supported on driven piles; and
- A new signalised junction connecting the new road with A1243 South Denes Road.
- The closure of Queen Anne's Road, at its junction with Suffolk Road, and the opening of a new junction onto Southtown Road providing vehicular and pedestrian access to residential properties and the MIND Centre and Grounds at the eastern end of Queen Anne's Road;
- Revised access arrangements for existing businesses onto the local highway network;
- Dedicated provision for cyclists and pedestrians which ties into existing networks;
- Implementation of part of a flood defence scheme along Bollard Quay that is proposed to be promoted by the Environment Agency, and works to integrate with the remainder of the flood defence scheme;
- A control tower structure located immediately south of the crossing on the western side of the river. The control tower would facilitate the 24/7 operation of the opening span of the new double-leaf bascule bridge;
- A plant room located on the eastern side of the river for the operation of the opening span of the new double-leaf bascule bridge;
- The demolition of an existing footbridge on William Adams Way;
- Associated changes, modifications and/or improvements to the existing local highway network;
- Additional signage, including Variable Message Signs (VMS) at discrete locations, to assist the movement of traffic in response to network conditions and the openings / closings of the double-leaf bascule bridge;
- The relocation of existing allotments to compensate for an area to be lost as a result of the Scheme and other works, including those at the MIND Centre and Grounds; and
- New public realm, landscape, ecology and sustainable drainage measures.

2.1.4 The Scheme also includes works to facilitate the construction, operation and maintenance of the above elements including:

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- Creation of temporary construction sites and accesses from the public highway;
  - Provision of new utilities and services and the diversion of existing utilities;
  - Provision of drainage infrastructure, lighting and landscaping;
  - Demolition of a number of existing residential and commercial / business properties; and
  - Provision of vessel waiting facilities to the north and south of the new crossing, either as floating pontoons or additional fendering to the existing berths, including any dredging and quay strengthening works that may be required.

2.1.5 The works comprising the Scheme are set out in **Schedule 1** of the draft DCO (DCO Document **3.1**) and are referred to in the DCO as the "authorised development" (see **Article 2** of the draft DCO).

#### Limits of Deviation

2.1.6 The Applicant requires a minor amount of flexibility as to where certain elements of the Scheme will be constructed, whilst always operating within the limits of deviation that are included in the draft DCO. Whilst the Applicant has completed a significant amount of investigative, survey and design works as part of the design and consenting process, the final detailed design and further investigative works will not be completed until the time when the DCO is made (if successful). The Applicant has made substantial efforts to minimise the degree of flexibility required, a process which has involved parallel tracking the pre-application DCO works with the procurement process to allow the selected Contractor to input to the final design.

2.1.7 The degree of flexibility described above will allow the appointed contractor to carry out the detailed design and construction of the Scheme, taking into account further investigation of, and survey work on, land below the surface land (subsoil), including land/subsoil beneath the River Yare.

2.1.8 Limits of deviation are presented in **Article 6** of the draft DCO. **Table 2.1** in **Chapter 2** of the ES sets out the parameters of assessment applied in accordance with the 'Rochdale Envelope' approach.

## 2.2 Compulsory Acquisition

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2.2.1 Land is required to be compulsorily acquired for the purpose of delivering the Scheme. Section 122 of the Planning Act sets out that an order granting development consent may include provision authorising the compulsory acquisition of land only if the SoS is satisfied that the land is required for the development to which the development consent relates, is required to facilitate or is incidental to that development, or is replacement land which is



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to be given in exchange for the Order Land. Section 122 also requires there to be a compelling case in the public interest for the land to be acquired compulsorily.

**2.2.2** The Statement of Reasons (SoR) (DCO Document 4.1) sets out the justification for the use of powers of compulsory acquisition and temporary possession being sought in the draft DCO. The Statement of Reasons also addresses the “without serious detriment” test in Section 127 of the Planning Act in relation to the compulsory acquisition of land, and new rights over land held by statutory undertakers. The draft DCO for the Scheme includes provision at **Article 37** to authorise the compulsory acquisition of land and rights held by statutory undertakers for the purposes of their undertaking.

**2.2.3** The Case for the Scheme should be read alongside the SoR.

### **2.3 Other Consents**

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**2.3.1** The Planning Act 2008 contains provisions allowing a DCO to incorporate matters that may have otherwise required consent under separate regimes.

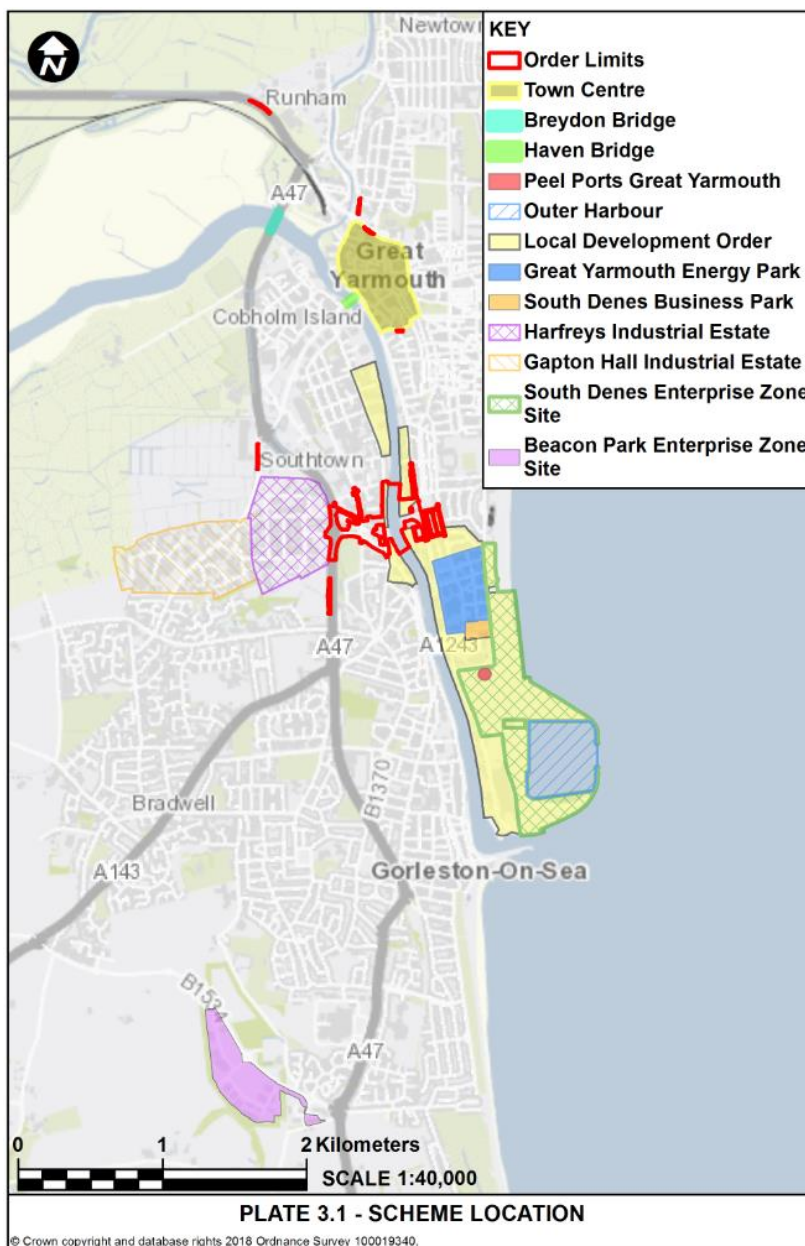
**2.3.2** The ‘Consents and Agreements Position Statement’ (DCO Document **7.3**) identifies which consents, permits and exemptions are expected to be needed for the Scheme, and confirms whether they will be sought within the draft DCO.

**2.3.3** The Case for the Scheme should be read alongside the Consents and Agreements Position Statement.

## 3 The Application Site and Wider Context

### 3.1 The Application Site

3.1.1 The Scheme is located in Great Yarmouth, on Norfolk’s coast, approximately 30 km east of Norwich. Great Yarmouth is further east than any other town in Britain, apart from Lowestoft. A Location Map showing the general location of the Scheme in relation to the town is provided in **Plate 3-1**. Great Yarmouth had an estimated population of 99,400 people in 2017<sup>14</sup>.



*Plate 3-1: Scheme Location*

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**3.1.2** Great Yarmouth is located at the mouth of the River Yare, one of the main waterways providing access to the Norfolk Broads. The river bisects Great Yarmouth, with the town centre, seafront, industrial areas and Outer Harbour located on the narrow 4km long South Denes peninsula between the river and the sea, isolated from the rest of the town. To the south of the River Yare, Gorleston-on-Sea is situated just a few hundred metres away from the new deep water Outer Harbour across the mouth of the river as the crow flies, but it is over 7km by road to the seafront.

### **3.2 Highway Network in Great Yarmouth**

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**3.2.1** The highway network in Great Yarmouth comprises both the Strategic Road Network (SRN) maintained by Highways England, and the local highway network, which is maintained by Norfolk County Council (NCC). The A12 trunk road between Lowestoft and Great Yarmouth was re-numbered the A47 in March 2017. The A47 is now a continuous trunk road from Peterborough to Lowestoft via Great Yarmouth.

**3.2.2** The A47 runs from west to east between Norwich and Great Yarmouth and does not enter the town centre but crosses the River Yare on a north-south alignment on the Breydon Bridge. South of Breydon Bridge, the A47 forms a western bypass around the town, intersecting with the A1243 at the Gapton roundabout and continuing as a two-lane dual carriageway before intersecting with William Adams Way at Harfrey's Roundabout.

**3.2.3** The A1243 Pasteur Road / Bridge Road starts at the Gapton roundabout before crossing the Haven Bridge into Great Yarmouth town centre where it joins the B1141 North Quay to the north and runs alongside the River Yare on Hall Quay and South Quay to the south before terminating at the Hartmann Road junction.

**3.2.4** **Plate 4-1** in the Transport Assessment (TA) (DCO Document **7.2**) identifies the location of main roads in Great Yarmouth.

#### **A47 junction improvements**

**3.2.5** The Government's Road Investment Strategy for 2015-2020<sup>15</sup> ("RIS 1"), sets out the investment plan and performance requirements for the network over the 5 year period and includes a £300 million investment package for improvements to the A47. HE's East of England Route Strategy<sup>16</sup> ("the East of England Route Strategy"), which informed the RIS 1, also contains a commitment to deliver the improvements and anticipates commencement in 2020.

**3.2.6** Of particular relevance for the Scheme are the planned A47 junction improvements in Great Yarmouth, as described in **Section 4.12** of the TA. In addition, the provision of dual carriageway connectivity between Norwich and

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Acle is included in RIS 1, as are the introduction of new safety measures along the Acle Straight itself. Collectively, the implementation of the improvements, combined with the Scheme, would enhance connectivity into and out of Great Yarmouth, which will serve to further enhance the attractiveness of the Port to investors.

- 3.2.7** Further information regarding the proposed improvements and their relationship to the Scheme is included in **Section 4.12** of the Transport Assessment (“the TA”) (DCO Document **7.2**) including a layout of the works in **Plate 4-16**.

### **3.3 Existing River Crossings**

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- 3.3.1** There are two existing road crossings of the River Yare. The Breydon Bridge is a lifting bridge on the A47 spanning the interface between the River Yare and Breydon Water, which is a large, sheltered estuary forming the gateway to the Norfolk Broads. Constructed in 1985, the bridge enables A47 traffic to bypass Great Yarmouth town centre. Breydon Bridge forms part of the A47 and therefore its management is the responsibility of HE.
- 3.3.2** The Haven Bridge is a lifting bridge on the A1243 and is maintained by NCC. Haven Bridge provides access into the northern part of the town centre and onto the peninsula for vehicles travelling from the southern and western parts of the town. Access to the town centre from the north can also be gained via Acle New Road over the River Bure.
- 3.3.3** There are no crossings further south that provide a more direct access to the southern part of the peninsula and, as a result, the main industrial areas and Outer Harbour are up to 4 km from the nearest bridge. Similarly, all vehicles, pedestrians and cyclists wishing to access the sea front must use the bridges to the north.

### **3.4 Land Use**

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- 3.4.1** Land within the Principal Application Site is occupied by a mixture of commercial and residential properties within both public and private ownership. As shown in **Table 14.21** in **Chapter 14** of the ES (DCO Document **6.1**), there are nine residential properties on Southtown Road, ten on Queen Anne’s Road and one on Cromwell Road that are to be demolished in order to accommodate the Scheme. The Satellite Application Sites (which, together with the Principal Application Site, form the Application Site) are predominantly located within the existing highway boundary and adjoining soft verge.
- 3.4.2** To the west of the river, within the Principal Application Site, the Scheme would necessitate the demolition of warehouses south of Cromwell Road whilst a number of other commercial businesses within the Principal

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Application Site are temporarily affected. To the east of the river, the Scheme bisects land at Atlas Terminal owned by Great Yarmouth Port Authority and occupied by various companies including Asco UK Ltd, Perenco UK Ltd and Peel Ports. In addition, a warehouse on South Denes Road occupied by South Denes Car Centre will be demolished. Also within the Principal Application Site are sections of the River Yare used for berthing and as a navigation channel for commercial and leisure vessels.

- 3.4.3** **Table 14.13** in **Chapter 14** of the ES (DCO Document **6.1**) provides a summary of landholdings within the Principal Application Site.
- 3.4.4** Community receptors located within the Application Site include allotment gardens, the first being situated immediately north-east of the Queen Anne's Road and Suffolk Road junction, and the second to the south of Queen Anne's Road (the MIND Centre and Grounds). The King's Centre, situated off Queen Anne's Road, is home to a charitable organisation and a portion of its grounds are within the Order Limits. Community facilities within the Study Area (500m of the Order Limits) are identified in **Table 14.14** of the ES.
- 3.4.5** Southtown Common, which is situated to the southeast of Harfrey's Roundabout, contains recreational facilities including children's play area, sports court and marked sports pitches, and is not directly impacted by the Scheme.
- 3.4.6** Uses associated with Great Yarmouth's tourist industry are predominantly focused along the seafront within the central and northern parts of the peninsula, whilst the Port, comprising both the River Port and deep water Outer Harbour, dominates the southern part of the peninsula. Further background regarding the Port, and in particular the vital role it plays in Great Yarmouth's economy, is provided in **Section 3.6**.
- 3.4.7** In terms of the Scheme's interface with land use allocations included in the Great Yarmouth Core Strategy Proposals Map, as shown in **Plate 8-2**, there is an area of Open Amenity Space (Saved Policy REC11) between William Adams Way and Queen Anne's Road and also Safeguarded Employment Areas (CS6) to the north of Queen Anne's Road, covering Bollard Quay, Gashouse Quay and Malthouse Quay and within the Port to the east of River Yare. An assessment of the Scheme's conformance with these policies is provided in **Section 8**.
- 3.4.8** Outside the Principal Application Site, the Satellite Application Sites include Variable Message Signs (VMS).
- 3.4.9** A more detailed description of land use, both within and adjacent to the Order Limits, is provided in **Section 14.5** of the ES.

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### 3.5 Great Yarmouth Enterprise Zones and Local Development Orders

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- 3.5.1** The UK Government commenced its Enterprise Zone programme in 2001. The ‘Space to Innovate’ EZ comprises 16 sites in Suffolk and Norfolk. The ‘Space to Innovate’ EZ includes the Great Yarmouth and Lowestoft EZ which comprises two EZ sites in Great Yarmouth and four in nearby Lowestoft. ‘Space to Innovate’ has the potential to create 18,500 jobs over the 25 year lifetime of the zone from 2015<sup>17</sup> and aims to stimulate growth on these strategic sites. The direct concessions and incentives offered to businesses locating there will shortly cease to be available, however, the Local Enterprise Partnership is able to use income from the EZ to enable or enhance development there. EZs also benefit from simplified planning procedures through a Local Development Order.
- 3.5.2** The two Great Yarmouth EZ Sites, which are designated for energy and marine businesses, offshore engineering, ports and logistics, are:
- Beacon Park EZ Site (16.7 hectares); and
  - South Denes EZ Site (58.8 hectares).
- 3.5.3** Both sites have been allocated for B1 (light industrial / business), B2 (general industrial) and B8 (storage and distribution uses).
- 3.5.4** The Beacon Park EZ Site is located in the commercial area of Gorleston on the southern side of Great Yarmouth, with direct access to the A47 corridor. It includes mixed office, industrial and leisure development.
- 3.5.5** The South Denes EZ Site is centred on the Outer Harbour on the southern end of the South Denes peninsula. There is significant land for development within the site.
- 3.5.6** The Great Yarmouth EZ Sites are subject to a Local Development Order (LDO) which provides freedoms and flexibilities in planning regulations for energy related development as a means of stimulating employment growth. The regeneration of the EZ sites is a key focus of the New Anglia Local Enterprise Partnership (“NALEP”), as discussed in further detail in **Section 4.4**.
- 3.5.7** In addition, the LDO covers land within the peninsula which is outside of the South Denes EZ Site; land on the western banks of the river; the Great Yarmouth Energy Park; and South Denes Business Park.
- 3.5.8** As set out in more detail in **Section 5.5** and **5.6**, the South Denes EZ Site will benefit greatly from the improved accessibility to the A47 (part of the SRN) provided by the Scheme.

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**3.5.9 Plate 3-1** shows the location of the Great Yarmouth EZ Sites and also the LDO boundary.

### **3.6 Great Yarmouth Port and Outer Harbour**

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**3.6.1** The Port comprises both the well-established River Port, with commercial quays on both east and west banks, and the deep water Outer Harbour. Historically, the prosperity of the River Port was largely dependent on Great Yarmouth's fishing industry, however, a decline in this area over the latter half of the 20th century brought with it a decline in associated employment and many sites around the Port became vacant. The advent of North Sea oil and gas exploration, extraction and servicing in the 1960s brought new industry to the town and in more recent years, the offshore wind power industry has created an impetus for new employment opportunities with energy related firms such as BH Bus, Equinor (Dudgeon Offshore Wind), Peterson and Seajacks recently moving to the peninsula. The town *"has developed into England's largest energy centre with more than 400 energy skilled and specialist businesses operating in an extensive offshore supply chain"*<sup>18</sup>.

**3.6.2** The Outer Harbour, completed in 2010, has the potential to further stimulate economic growth in the town. It provides deep water (over 10.5m), substantial quays with heavy lift and roll on roll off capacity, laydown space and a range of other facilities that are not common on the East Coast, where the most substantial proportion of the offshore renewables market is located. The Port offers direct, immediate access to the open sea and the above facilities are attractive to developers and tier one contractors who use ever larger offshore vessels to handle wind turbine components. This complements the long-established facilities for oil and gas and decommissioning operations within the Port and surrounding employment areas, which are serviced by a highly specialised supply chain. There are no signs of the oil and gas industries abating with production expected to continue until at least 2035<sup>19</sup>. In 2015 a joint venture of Peterson and Veolia announced £1 million investment to provide a bespoke decommissioning facility in the western terminal of the Outer Harbour enabling topside, jackets and subsea equipment to be off loaded for dismantling and recycling. A press release following the announcement of the investment stated *"Locating Veolia-Peterson's expertise in Great Yarmouth will provide operators with a facility within easy reach of the SNS (Southern North Sea) thus minimising the risk and costs associated with transporting infrastructure"*<sup>20</sup>.

**3.6.3** In addition, long term requirements for supporting operations and maintenance activity can be handled in both the Outer Harbour and in the River Port as required. The Outer Harbour's construction has attracted Siemens, which is one of Scottish Power's main contractor's, to invest £5m in roll on roll off facilities to use the new harbour as its pre-assembly location for the installation of new turbines for East Anglia ONE<sup>21</sup>.

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- 3.6.4** East Anglia ONE is the first of four phases of the 'East Anglia Array' to begin construction. The East Anglia Array will comprise up to 1,800 wind turbines and is approximately 32 km south east of the Application Site. Great Yarmouth is the closest port to 'East Anglia THREE', which was recently granted a DCO by the Planning Inspectorate. Proposals for the remaining phases on the East Anglia Array are still in development.
- 3.6.5** Further offshore wind development off the Norfolk coast is planned with an application for DCO being made in June 2018 for the Norfolk Vanguard wind farm. The Norfolk Vanguard would be located approximately 50 km north east of the Application Site whilst its sister project, Norfolk Boreas, would be located adjacent to the eastern part of Norfolk Vanguard at approximately 60 km north east of the Application Site. Norfolk Boreas is reportedly a year behind its sister project in terms of development<sup>22</sup>. Vattenfall has selected the Port of Great Yarmouth as their operations base for the delivery of these developments, should they be successful in securing DCOs<sup>23</sup>. Further south, approximately 27km from the Suffolk Coast, are the Galloper and Greater Gabbard offshore wind farms which are both operational and approximately northeast of the Norfolk coast is the proposed Hornsea Project Three wind farm. Investment in wind energy off the East Anglia coast is set to continue with the Crown Estate planning to launch a new offshore wind leasing round (Round 4) in the early part of 2019, which would maintain a pipeline of projects through to the late 2020s and beyond<sup>24</sup>.
- 3.6.6** Great Yarmouth's strategic location in respect of both operational and planned offshore wind developments off the East Anglian coast has led to it being named one of six Centres for Offshore Renewable Engineering<sup>25</sup> (CORE) across the UK, along with Lowestoft. **Section 4.4** provides more information on Great Yarmouth's status as a CORE. Government withdrew its support from this initiative in 2015 but the local areas continue to collaborate and it was indicative of the prominence of and opportunity at the two ports.
- 3.6.7** As well as existing and planned offshore wind developments off the UK east coast, Great Yarmouth is also an established general and cargo port, offering the shortest North Sea crossing between Great Britain and mainland Europe. Specifically, the Port handles agribulks and aggregates, both of which rely on good road links for onward distribution.
- 3.6.8** In summary, the Port is of strategic national importance for its role as an offshore support port, however, existing road links to it are considered to be inadequate. The lack of a direct route<sup>26</sup> to the Outer Harbour area can make it seem remote, potentially discouraging further inward investment, as referenced in **Section 4.4**. Currently, Port-related traffic is forced to navigate along unsuitable routes within the Town Centre. In their response to the statutory consultation, the Great Yarmouth Port Authority welcomes, in principle, the construction of a third river crossing, stating "*The new bridge*



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*offers the potential of significantly improved road access to the Port, and to the Outer Harbour in particular”.*

3.6.9 “Connecting Norfolk”, Norfolk’s Local Transport Plan for Norfolk 2026<sup>27</sup> (“the Norfolk Local Transport Plan”) also recognises the current issues and the need for change in stating *“It is important to enhance connections to Norfolk’s three international gateways: Norwich International Airport and the ports at Great Yarmouth and King’s Lynn. This will help boost the contribution they make to the Norfolk economy”*. The Great Yarmouth Core Strategy<sup>28</sup>Error! Bookmark not defined. (“the GY Core Strategy”) cites that the development of a new third river crossing would *“help the Outer Harbour realise its long-term potential”*. The current issues experienced due to inadequate access to the Port are described in further detail in **Section 4** whilst evidence for the Scheme’s impact in addressing them is provided in **Section 5**.

### 3.7 Socio Economic Context

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3.7.1 The estimated population of Great Yarmouth is around 99,400<sup>14</sup>Error! Bookmark not defined. (totalling 49,000 males and 50,200 females) and there is a lower proportion of individuals aged 16-64 in the town (58.4%), compared with the averages across the East of England region (61.3%) and Great Britain (62.9%).

3.7.2 According to the English Indices of Deprivation, Great Yarmouth is in the 10% most deprived Local Authority areas in England. The Scheme is located within two Lower Layer Super Output Areas (LSOAs): Great Yarmouth 006A and Great Yarmouth 007B. The eastern extent of the Scheme is located in Great Yarmouth 006A LSOA, which is in the top 10% most deprived areas in England. The western extent of the Scheme is located in the Great Yarmouth 007B LSOA and is amongst the 20% most deprived areas in England<sup>29</sup>.

3.7.3 The level of economic activity in Great Yarmouth is estimated to be lower than the regional average and marginally lower than the national average. In 2017/18, 71.1% (40,300 people) of 16-64 year olds were estimated to be economically active, compared with an average of 78.9% (432,000 people) in Norfolk, 81.1% in the East of England and 78.4% across Great Britain. In 2017, there were an estimated 37,000 jobs in Great Yarmouth, with 59.5% full time and 40.5% part time<sup>14</sup>.

3.7.4 In 2016, the job density level (i.e. the ratio of total jobs to the population aged 16-64) in Great Yarmouth was 0.73 compared to 0.82 in Norfolk and 0.84 in Great Britain, which suggests that opportunities to gain employment in the Borough are lower than elsewhere in the region and country.

### 3.8 Planning and Environmental Designations

#### Environmental Designations

3.8.1 There are a number of statutory and non-statutory designations located within the Order Limits and in the study areas for each environmental topic, as summarised in **Tables 3-1** and **3-2** below and with reference to the ES (DCO Document **6.1 - 6.3**). Where environmental aspects are not included in the table below, there are no designated sites within the defined study areas.

Table 3-1 - Statutory Designated Sites / Features

Environmental Aspect	Study Area	Statutory designated sites
<b>Noise and Vibration (Chapter 7 of the ES)</b>	<p><b>Construction Noise:</b> Noise Monitoring locations (see <b>Figure 7.2</b>, DCO Document <b>6.3</b>)</p> <p><b>Operation Noise:</b> 1km from the Scheme carriageway edge (including proposed, bypassed or improved routes), which also encompasses the 600m calculation area, and 50m from any affected routes beyond 1 km.</p>	<ul style="list-style-type: none"> <li>• Noise Important Area (NIA) 4985 (asset owner NCC);</li> <li>• NIA 4986 (asset owner NCC);</li> <li>• NIA 4987 (asset owner NCC);</li> <li>• NIA 4989 (asset owner Highways England);</li> <li>• NIA 4990 (asset owner Highways England); and</li> <li>• NIA 11282 (asset owner Highways England).</li> </ul>
<b>Nature Conservation (Chapter 8 of the ES) and the HRA Report (DCO Document 6.11)</b>	Extended Study Area - up to 30 km from the Principal Application Site Boundary.	<ul style="list-style-type: none"> <li>• Outer Thames Estuary Special Protection Area (SPA);</li> <li>• Breydon Water SPA, Ramsar and Site of Special Scientific Interest (SSSI);</li> <li>• Great Yarmouth North Denes SPA and SSSI;</li> <li>• Broads SAC;</li> </ul>

Environmental Aspect	Study Area	Statutory designated sites
		<ul style="list-style-type: none"> <li>• Broadland SPA and Ramsar site; and</li> <li>• Southern North Sea Site of Community Importance (SCI) / candidate SAC</li> </ul>
<b>Cultural Heritage (Chapter 9 of the ES)</b>	Designated assets - 1km around the Principal Application Site Designated assets – 250m around the Satellite Application Site	<b>Four Scheduled Monuments:</b> <ul style="list-style-type: none"> <li>• Town Walls (NHLE 1003782);</li> <li>• Nos 6, 7, and 8, Row 111 South Quay (NHLE 1003958, and also Grade II Listed Building NHLE 1245916);</li> <li>• Merchant’s House, Row 117, South Quay (NHLE 1004020, see also Grade II* below); and</li> <li>• Greyfriars Franciscan Friary (NHLE 1017910).</li> </ul> <b>Four Grade I Listed Buildings:</b> <ul style="list-style-type: none"> <li>• The Tolhouse (NHLE 1245560);</li> <li>• Remains of the Church of the Greyfriars (NHLE 1245915);</li> <li>• St Georges Theatre (NHLE 1245919); and</li> <li>• Nelson’s Monument (NHLE 1246057).</li> </ul>

Environmental Aspect	Study Area	Statutory designated sites
		<p><b>Eight Grade II* Listed Buildings:</b></p> <ul style="list-style-type: none"> <li>• Great Yarmouth Potteries (NHLE 1245561);</li> <li>• Custom House (NHLE 1245800);</li> <li>• 25, South Quay (NHLE 1245803);</li> <li>• Old Merchant House (NHLE 1245917, see also Scheduled Monument above);</li> <li>• The Hippodrome (NHLE 1245922);</li> <li>• St Nicholas Hospital Main</li> <li>• Entrance Range (NHLE 1245984);</li> <li>• Old White Lion Public House (NHLE 1271278); and</li> <li>• The Winter Gardens (NHLE 1271608).</li> </ul> <p><b>102 Grade II Listed Buildings</b>, including</p> <ul style="list-style-type: none"> <li>• Hotels and Public Houses;</li> <li>• Residential properties;</li> <li>• Churches;</li> <li>• Public and Leisure facilities; and</li> <li>• Industrial buildings.</li> </ul> <p><b>Six Conservation Areas:</b></p> <ul style="list-style-type: none"> <li>• Camperdown;</li> <li>• Gorleston Extension;</li> <li>• King Street;</li> </ul>

Environmental Aspect	Study Area	Statutory designated sites
		<ul style="list-style-type: none"> <li>• Seafront;</li> <li>• Hall Quay and South Quay; and</li> <li>• St George's.</li> </ul>
<b>Townscape and Visual Impact (Chapter 10 of the ES)</b>	3km radius from centre of Principal Application Site. (trimmed along the eastern boundary to the mean high-water line)	The Broads National Park Conservation Areas, including: <ul style="list-style-type: none"> <li>• No 1. Camperdown;</li> <li>• No 2. Marketplace, Rows &amp; North Quay;</li> <li>• No 3. Hall Quay/ South Quay;</li> <li>• No 4. King Street;</li> <li>• No 5. St Nicholas/ Northgate Street;</li> <li>• No 6. Gorleston Town Centre;</li> <li>• No 10. Princes Road;</li> <li>• No 12. Gorleston Cliff;</li> <li>• No 15. St Georges;</li> <li>• No 16. Great Yarmouth Seafront; and</li> <li>• No 17. Gorleston.</li> </ul> (Impacts on Conservation Areas are not assessed in <b>Chapter 10</b> . An assessment of the Scheme's impact on Conservation Areas is provided in <b>Chapter 9</b> ) The Venetian Waterways, grade II listed registered Park and Garden
<b>Water Environment (Chapter 11 of the ES)</b>	<b>Surface Water:</b> 1km from boundary of Application Site	River Yare Main River  River Bure Main River

Environmental Aspect	Study Area	Statutory designated sites
	<b>Groundwater:</b> 2km from boundary of Application Site for groundwater	

*Table 3-2 Non-Statutory Designated sites*

Environmental Aspect	Study Area	Statutory designated sites
<b>Historic Environment (Chapter 9 of the ES)</b>	<p>Non-designated assets - 500m around the Principal Application Site</p> <p>Non-designated assets - 250m around the Satellite Application Sites</p>	<p>There are a total of 135 non-designated heritage assets are recorded within the 500m Study Area around the Principal Application Site. Of these, 125 are non-designated buried heritage assets, comprising both findspots and monuments, and 10 are non-designated built heritage assets. 15 of the non-designated heritage assets have been identified during the course of this assessment and the remaining 120 were previously recorded by the Norfolk Historic Environment Record (NHER).</p>

- 3.8.2** The Principal Application Site is predominantly within Flood Zone 3, with some areas being within Flood Zone 2.
- 3.8.3** National Cycle Route 517, which runs along Southtown Road before joining William Adams Way, is located within the Order Limits.
- 3.8.4** Hopton-on-Sea to Sea Palling is a National Trail forming part of the England Coast Path, and is located within the Order Limits, running along Southtown Road and Malthouse Lane. There are also a number of other PRow located within 2km of the Principal Application Site, mainly to the west of the Order Limits, around Harfrey's Industrial Estate.

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## Planning History

- 3.8.5** A search of the Great Yarmouth Borough Council online planning register for applications determined between 1<sup>st</sup> January 2016 and 26<sup>th</sup> April 2019 did not reveal any planning applications of significance within the Order Limits. Applications for advertisements and minor household applications were not included in the search.
- 3.8.6** Other DCO applications and planning applications outside the Order Limits but of relevance to the Scheme are summarised below and are consistent with those considered in the inter-project effects assessment in **Chapter 19** (Cumulative Effects) of the ES Volume I (DCO Document **6.1**).

### NSIPs

- East Anglia One North Windfarm - Part of the East Anglia Array (Ref. EN010077 – Pre-application). 32 km south east of Application Site;
- East Anglia Two Windfarm - Part of the East Anglia Array (Ref. 010078 – Pre-application) 35 km south east of Application Site;
- East Anglia Three Windfarm – Part of the East Anglia Array (Ref. EN010056 – DCO Granted). Windfarm 59 km east, Substation 75 km south west and Landfall 68km south west of Application Site;
- A47 Burlingham-Blofield Dualling (Ref. TR010040 – Pre-application). 17 km north west of Application Site;
- A47 Thickthorn Junction Improvements (Ref. TR010037 – Pre-application). 34 km west of Application Site;
- A47 Easton-North Tuddenham Dualling (Ref. TR010038 – Pre-application). 43 km north west of Application Site;
- Norfolk Vanguard offshore windfarm (Ref. EN010079 – Examination). Windfarm 50 km north east, Substation 64 km west and Landfall 28km north east of Application Site;
- Norfolk Boreas offshore windfarm (Ref. EN010087 – Pre-application). Windfarm 60 km north east, Substation 64 km west and Landfall 28km north east of Application Site;
- TIGRE Project 1 Gas-fired power station facilities (Ref. EN010099 – Pre-application). 100km north of Application Site;
- Hornsea Project Three offshore windfarm (Ref. EN010080 – Examination). Windfarm 140 km north west, Substation 30 km west and Landfall 55km north west of Application Site;
- Progress Power Station (Ref. EN010060 – DCO Granted). 50 km south west of Application Site;
- Sizewell C Nuclear Power Station (Ref. EN010012 – Pre-application). 43 km

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south west of Application Site;

- Bramford to Twinstead Overhead Line - grid connection to Sizewell C (Ref. EN020002 – Pre-application). 83 km south west (at closest point) of Application Site;
- Lake Lothing Third River Crossing (Ref. TR010023 – Examination). 13 km south of Application Site;
- Sunnica Energy Farm (Ref. EN010106 – Pre-application). 89km south west of Application Site;
- Kings Lynn B Connection Project (Ref. EN020003 – Approved). 92km north-west of Application Site; and
- Palm Paper 3 CCGT Power Station King's Lynn (Ref. EN010039 – Approved) 91km north west of Application Site.

#### **Non-NSIPs**

- Outline permission for up to 231 residential units (5.88 Hectares) and full permission for 56 residential units at Beacon Park. Area is allocated under GYBC Policy CS18 for approx. 1,000 new dwellings (Ref. 06/16/0391/SU – Approved). 3.4 km south west of Application Site;
- Bradwell South - 28 dwellings on Kings Drive, 127 residential dwellings on Wheatcroft Farm, and 130 dwellings on Meadowland Drive (Ref. 06/16/0064/D – Approved, 06/13/0643/F – Approved and 06/13/0703/O – Approved). 3 km south west of Application Site;
- Proposed leisure developments south of Pleasure Beach, Great Yarmouth, which include a new 81-bedroom hotel, restaurant and car parking (under construction), and an outline permission for a proposed casino plus cinema, bars & restaurants etc (06/17/0218/O - Approved). 0.5 km south east of Application Site;
- Residential development including 113 dwellings (5.08ha) at former Claydon High School (Ref. 06/15/0737/F – Approved). 0.8 km south west of Application Site;
- Demolition of existing school building and erection of new 420 pupil place pupil primary school at North Denes Middle School (Ref. Y/6/2018/6003– Pending decision). 4km north east of Application Site;
- Residential development (up to 200 dwellings) and open space / associated works including allotments at land southeast of Hopton (Ref. 06/17/0339/O – Approved). 6.2 km south of Application Site;
- Pointers East - Construction of 189 dwellings and associated infrastructure (Ref. 06/15/0309/F – Approved). 8 km north of Application Site;
- Outline permission for a residential development (103 dwellings) at land north of Hemsby Road (Ref. 06/14/0817/O – Approved). 14km north west of



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### Application Site.

- Demolition of all existing buildings and erection of 104 dwellings, 3 office blocks, associated works and open space at Halls Riverside Road (Ref. 06/12/0061/O – Approved). 1.3km south of Application Site.
- Mixed-use development (15 three bed houses, 8 one and two bedroom flats, leisure area and 10 retail units) at 90 and 102 Regent Road (Ref 06/17/0469/F – Approved). 1.5 km north east of Application Site;
- Residential development (93 dwellings) on land west of Yarmouth Road (Ref 06/16/0583/O - Approved). 11 km north west of Application Site;
- Residential development (100 dwellings) at former mushroom farm, Martham. (Ref 06/15/0486/F – Approved). 14 km north west of Application Site;
- Retention of hazardous waste transfer station and minor alterations at Berths 1 to 4 of South Denes Road, Great Yarmouth. 0.5 km miles south east of Application Site. (Ref C/6/2017/6004 – Approved);
- Construction of 76 residential dwellings at Northgate Hospital (Ref. 06/18/0582/F – Pending decision). 2.5 km north of Application Site;
- Outline application for 144 dwellings at Repps Road. 14.5 km miles north west of Application Site. (Ref C/6/2017/6004 – Pending decision); **and**
- Permitted development for construction of offices and warehousing, ancillary car park, transit areas, security fences and gates (Ref. 06/17/0234/LDO).

### 3.8.7 In addition to the above, the following Local Plan allocations are of relevance to the Scheme.

- The Great Yarmouth Waterfront Area (considered further in Section 8.3);
- The proposed North Lowestoft Garden Village, which is included in the Waveney Local Plan<sup>30</sup> (Policy WLP2.13), includes 1,300 dwellings and 8 hectares employment land and is anticipated for delivery between 2026-2044.

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## 4 Need for the Scheme

### 4.1 Introduction

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4.1.1 The national significance and need for the Scheme derives from the improvement in connectivity and resilience it will deliver to the Port, which itself has a nationally significant role in the renewable energy sector and the offshore oil and gas industry. The Scheme is therefore critical in providing an improved connection from the A47 (part of the SRN) to the Port and associated employment areas.

### 4.2 National Policy support for the development of National Networks as a driver for economic growth

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4.2.1 Government policy recognises the inextricable link between the performance of national networks and economic prosperity and acknowledges the need for continued investment in infrastructure to overcome barriers to sustained growth. Although the new highway introduced by the Scheme will not form part of the SRN in terms of its classification, it is nevertheless of national significance, as established in the Section 35 Direction, by virtue of its role in bringing greater connectivity and resilience to the Port. On this basis the Scheme constitutes a highways NSIP and benefits from the support of the NPS NN in addition to other national policy documents.

#### National Policy Statement for National Networks

4.2.2 Part 2 of the NPS NN sets out the need for development of national networks and outlines Government's vision and strategic objectives.

4.2.3 The NPS NN (on page 9) states that "*the Government will deliver national networks that meet the country's long term needs; supporting a prosperous and competitive economy and improving overall quality of life, as part of a wider transport system. This means:*

- *Networks with the capacity and connectivity and resilience to support national and local economic activity and facilitate growth and create jobs.*
- *Networks which support and improve journey quality, reliability and safety.*
- *Networks which support the delivery of environmental goals and the move to a low carbon economy.*
- *Networks which join up communities and link effectively to each other".*

4.2.4 Paragraph 2.13 highlights the significance of the SRN in enabling connectivity, as it "*provides critical links between cities, joins up communities, connects our major ports, airports and rail terminals*" and that "*it provides a vital role in people's journeys and drives prosperity by supporting new and*

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*existing development, encouraging trade and attracting investment*". It goes on to state that *"a well-functioning Strategic Road Network is critical in enabling safe and reliable journeys and the movements of goods in support of the national and regional economies"*.

- 4.2.5 Paragraph 2.22 states that *"without improving the road network, including its performance, it will be difficult to support further economic growth, employment and housing and this will impede economic growth and reduce people's quality of life. The Government has therefore concluded that at a strategic level there is a compelling need for development of the national road network"*.
- 4.2.6 Paragraph 2.27 recognises that capacity improvements on the existing network may not solve all needs and *"In those circumstances new road alignments and corresponding links, including alignments which cross a river or estuary, may be needed to support increased capacity and connectivity"*.
- 4.2.7 The recognition in the NPS NN of a linkage and dependency between improved transport infrastructure and successful economic growth is reflected across a range of other more recent Government strategy documents, including the key documents discussed below. This dependency is also highlighted by the SoS within the Section 35 Direction (**Appendix B**). A full assessment of the Scheme's conformance with the NPS NN is set out in **Section 7** and **Appendix A**.

#### **The Government's Industrial Strategy (2017)**

- 4.2.8 The objective of the Industrial Strategy: Building a Britain fit for the Future (Department for Business, Energy and Industrial Strategy, 2017) ("the Industrial Strategy") is to help deliver a *"stronger economy and fairer society"* as well as improving living standards and economic growth by increasing productivity and driving growth across the whole country. The Industrial Strategy identifies pillars for a stronger economy, including: upgrading infrastructure, supporting businesses to start and grow, encouraging trade and inward investment and driving growth across the whole country.
- 4.2.9 It also recognises the importance of infrastructure to the creation of jobs: *"infrastructure is essential in underpinning of our lives and work and having modern and accessible infrastructure throughout the country is essential to our growth and prosperity"; and that "providing the right infrastructure in the right places boosts the earning power of people, communities and our businesses"*.
- 4.2.10 The Industrial Strategy highlights the evident link between the provision of transport infrastructure and economic growth. This view supports the assertion that the Scheme will play a pivotal role in stimulating additional economic growth of the Port as well as other industrial and commercial

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activity, particularly the South Denes EZ Site and the and Beacon Park EZ Site.

### The Government's Transport Investment Strategy (2017)

4.2.11 The Department for Transport (DfT) published the Transport Investment Strategy ("the Transport Strategy") in July 2017, setting out the Department's priorities and approach for future investment decisions. As an enabler to the Industrial Strategy, the Transport Strategy aims to improve connections between communities and businesses to facilitate economic growth. The Transport Strategy highlights four main aims of investment in transport infrastructure, to:

- *"create a more reliable, less congested, and better-connected transport network that works for the users who rely on it...;*
- *build a stronger, more balanced economy by enhancing productivity and responding to local growth priorities...;*
- *enhance our global competitiveness by making Britain a more attractive place to trade and invest...; and*
- *support the creation of new housing...".*

4.2.12 The Transport Strategy clearly highlights the need to create better connectivity on the transport network in order to encourage economic growth.

### The Government's National Infrastructure Delivery Plan (2016 – 2021) (NIDP)

4.2.13 The National Infrastructure Delivery Plan 2016-2021 ("the NIDP"), published by the Infrastructure and Projects Authority reporting to HM Treasury and the Cabinet Office, sets out how the Government will support the delivery of key infrastructure projects and programmes within the period of the current Parliament.

4.2.14 Paragraph 3.2 of the NIDP states that the SRN is: *"vital to businesses and the successful functioning of the economy"*. Paragraph 5.16 recognises that *"with two thirds of all freight being carried on the Strategic Road Network, effective road links to ports are vital to allow goods and services to be moved into and around the country efficiently and reliably"*.

4.2.15 The NIDP highlights a need for the Scheme through the identification of the importance of the SRN in carrying freight efficiently and reliably. As is identified in **Section 4.3**, a third river crossing is essential to increase road capacity and ensure a more direct route between the SRN and the Port.

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### Transport Infrastructure for our Global Future: A Study of England's Port Connectivity (2018)

- 4.2.16 'Transport Infrastructure for our Global Future: A Study of England's Port Connectivity' ("the Port Connectivity Study"), published by the DfT in 2018, identifies a number of key points in relation to port connectivity, including:
- The reliance of ports on *"good infrastructure to be successful, particularly as the landscape of global enterprise will continue to change"*;
  - The acknowledgement that *"connectivity is more than just a port issue; it is about the facilitation of trade, driving productivity, enhancing the economy and making a difference in everyday lives"*; and
  - The definition of port connectivity as being *"about how effectively freight moves to and from our ports to meet the wider needs of the economy, businesses and consumers"*.
- 4.2.17 The Port Connectivity Study notes that *"at present around 95% of all goods entering and leaving the UK are moved by sea and the UK port sector directly contributes £1.7billion to the UK economy"*, and that *"if our ports are to continue to thrive then the national, regional and local infrastructure supporting them has to be effective and efficient"*.
- 4.2.18 Paragraphs 23 confirms the Port Connectivity Study's recognition of the role of ports in connecting *"people and markets as well as attracting inward investment and keeping the UK globally competitive"*.
- 4.2.19 The Port Connectivity Study further recognises that renewable energy sectors, such as offshore wind, are closely linked to the port associated industry and that *"port access will be an issue for their supply chains and their employees"*.
- 4.2.20 The Port Connectivity Study's recognition of the strategic importance of ports, and in particular the role they play in supporting industries such as offshore wind, attests to the need for the Scheme in facilitating a more direct connection between the SRN and the Port. As part of the Port Connectivity Study, all ports in England reporting freight tonnage in 2015 were invited to complete a survey regarding connectivity issues affecting them and to gain an understanding of their current and future aspirations. The responses are compiled in the DfT document 'England's Port Connectivity: the current picture' which acknowledges that for the North East Anglia and Wash ports region *"Roads were generally reported to be more important than rail for the ports in this area, with congestion in the larger towns of Boston and Great Yarmouth identified as issues, as well as single carriageway roads"*. This document also specifically references the commitment made in the Autumn Budget 2017<sup>31</sup> to contribute £98 million to the Scheme's current cost estimate of £120.653 million programme budget. It also cites the need for the Scheme, stating *"Third crossing needed; port access affected by Yarmouth town centre"*

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*traffic, and would provide a more direct route to port for freight traffic".* The Funding Statement (DCO document **4.2**) provides an updated position on how the implementation of the powers conferred by the DCO would be funded.

### 4.3 The Transport Case

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- 4.3.1** The need for the Scheme stems, in part, from the current inadequacy of access between the SRN and the South Denes peninsula, which is home to the Port and adjacent employment areas, including the South Denes EZ Site. The future growth of the Port as a nationally significant service hub for offshore industries is threatened by a lack of a direct access to the SRN, and the resulting congestion caused by the convergence of Port and local traffic at key bottlenecks – which also impacts negatively upon both the operation of the SRN and of the local highway network.
- 4.3.2** The need for a third river crossing in Great Yarmouth is well established within regional and local transport and planning policy. The Norfolk Local Transport Plan<sup>27</sup> outlines the intention to develop a third crossing east to west over the River Yare, the objective being to improve access and alleviate congestion. In addition, the GY Core Strategy safeguards the route alignment and recognises the contribution of a third river crossing in reducing congestion, reducing pressure on Haven Bridge and helping the Outer Harbour to achieve its long-term potential. Both documents are reviewed in **Section 8** in considering the Scheme's compliance with them.
- 4.3.3** Funding for the Scheme was announced by the Government in the Autumn 2017 budget (see **Section 3.4** of the Funding Statement (DCO Document **4.2**)), which, alongside the Section 35 direction, demonstrates the Government effectively recognising that the long-term economic prosperity of Great Yarmouth and the wider sub-region, as well as efforts at a national level to secure a low carbon energy future for the UK, relied on effective and efficient connectivity to the Port.
- 4.3.4** The various aspects of the transport case are set out in detail below and draw upon the findings of the TA (DCO Document **7.2**).
- 4.3.5** The Transport Case is outlined in the following sections:
- Inadequate connectivity between the SRN and the Port;
  - Congestion and resilience issues on the local highway network;
  - Local connectivity and severance;
  - Difficulties for public transport connections;
  - Walking and Cycling Accessibility Barriers; and
  - Personal Injury Accidents (PIAs).

### Inadequate Connectivity between the SRN and the Port

- 4.3.6 The A47, which is part of the SRN, is an important route between Great Yarmouth and Lowestoft and further afield to Norwich and Peterborough. It also forms part of the Trans-European Transport Networks (TEN-T)<sup>32</sup> which connects into the SRN making the A47 a significant route, both nationally and within Europe. The efficient operation of the TEN-T relies on the smooth running of the SRN.
- 4.3.7 After Lowestoft, which is located 10 miles to the south, Great Yarmouth is the eastern-most town of the SRN, as shown in **Plate 4-1** below. The A47 provides a vital connection between the Great Yarmouth and the national highway network, supporting nationally significant offshore wind, oil and gas installations, both existing and proposed, as described in **Section 3.6**. For instance, in acting as pre-assembly location for the installation of new turbines for East Anglia ONE, the Port relies on good connectivity with the SRN for the in-time supply of products and materials from the national market. However, the lack of a direct connection between the SRN and the Port serves to impede the final part of the journey through Great Yarmouth into the Port.



Plate 4-1 Scheme Location in relation to SRN (taken from TA)

- 4.3.8 As described in **Section 3.2**, the Government’s RIS 1 and the East of England Route Strategy includes a £300 million package of improvement works for the A47 aimed at reducing congestion, delays and accidents along this section of the SRN. The provision of dual carriageway connectivity between Norwich

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and Acle and planned A47 junction improvements in Great Yarmouth are key components of the investment package.

- 4.3.9** These improvements provide potential benefits to Great Yarmouth in terms of improved access to the town from the SRN. However, in the absence of a third river crossing, congestion, queuing and unreliable journey times within Great Yarmouth, particularly on routes between the west and east of the town via Haven Bridge, would likely remain given that in the Do Minimum (DM) scenario traffic volumes are expected to increase by 26% by 2023 in the AM peak and by 22% in the inter-peak. A slight reduction (5%) is predicted in the PM peak. (see **Table 7-1** in the TA). In their response to the Section 42 consultation on the Scheme, the NALEP echo these issues in stating “*The Third River Crossing will improve access and strategic connectivity between the port and the SRN to support and promote economic growth, particularly in the Enterprise Zone. It will also add to the benefits that will be realised by HE’s A47 improvements*”.
- 4.3.10** The locations of the existing routes onto the peninsula from the SRN mean that traffic travelling from the Port and employment areas at the southern end of the peninsula, which include the South Denes EZ Site and Great Yarmouth Energy Park, to the west side of the river, must travel a congested 2.5 miles (4km) to the nearest crossing, sharing the same routes as town centre traffic. Consequently, both the town centre and key junctions on the SRN have become subject to congestion during peak hours, as indicated by **Plate 4-2**, which is taken from the TA.
- 4.3.11** As a consequence of increased traffic volumes in the network, as set out in **Table 4-1**, congestion at key junctions on routes from the west of the river to the South Denes peninsula will deteriorate in a DM scenario. **Table 7-5** in the TA, predicts that, in the PM peak, total aggregated mean maximum queue (MMQ) lengths on all approaches at the Pasteur Road/Bridge Road/Southtown Road junction would increase by 73% from 363m in 2018 to 629m to 2023 in a DM scenario. **Table 7-5** of the TA also provides details of predicted increases in queuing at other junctions in the network and illustrates this in **Plate 7-1**, which is replicated in **Plate 4-3** of this document.
- 4.3.12** Additionally, **Section 7.2** of the TA considers the likely impacts of forecast traffic growth to 2038 levels of demand, taking account of the expected levels of development and growth over the 15 years from opening of the Scheme. The results of the high-level modelling exercise are very striking and reveal that in the DM scenario there would be insufficient capacity within the overall network to cope with the 2038 levels of demand (**paragraph 7.2.12** of the TA). The TA predicts that congestion would be widespread and trip making and growth would be inhibited.
- 4.3.13** **Table 7-11** in the TA forecasts future journey times on certain routes between locations either side of the River Yare, during the PM peak. The 2018 base



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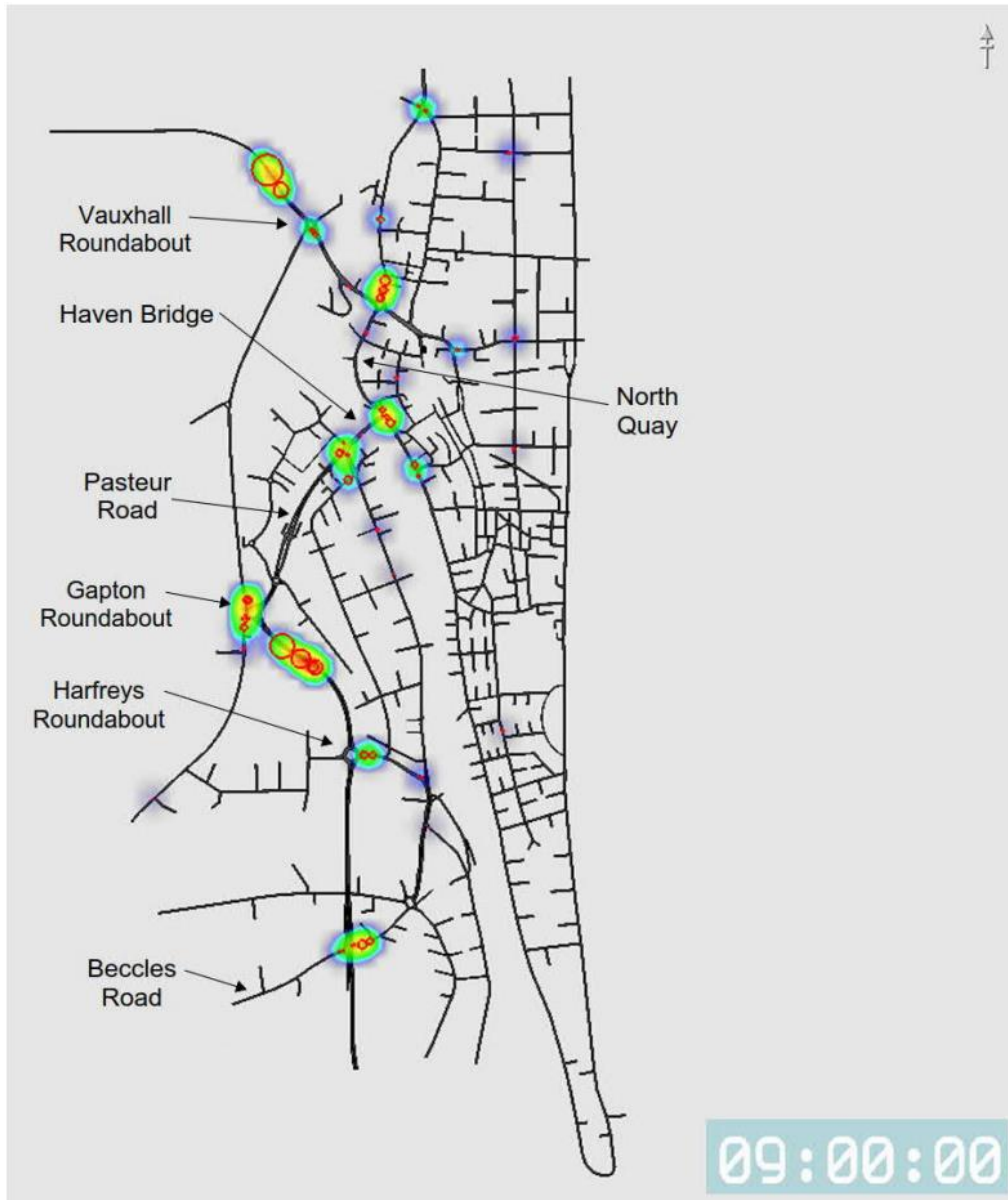
model indicates that journeys between the A47 (south), a location shown in **Plate 4-10** of the TA, and the Outer Harbour take 9.5 minutes during this period and that this is set to rise to 10.8 minutes by 2023 in a DM scenario. To put this into context, the distance between the two locations, as the crow flies, is approximately 1.1km.

- 4.3.14** Collectively this data highlights there are severe issues, both now and increasing in the future, in terms of the capacity of, and resulting congestion and delays at, existing junctions, particularly those providing access between the west of the river and the South Denes peninsula (including the Outer Harbour and the employment areas surrounding it). Unless addressed, these issues will hamper the Port's ability to successfully perform and grow its nationally significant role as a service hub for the offshore wind, oil and gas industries, including taking advantage of local improvements planned to the SRN.

#### **Congestion and Resilience Issues on the Local Highway Network**

- 4.3.15** It is not only routes between the SRN and the South Denes peninsula that suffer the effects of congestion due to limited opportunities to cross the river. In addition to the route via Haven Bridge, significant numbers of vehicles also choose an alternative route via the Vauxhall roundabout, the Acle New Road and through Fullers Hill roundabout, which causes increased congestion through the town centre. Congestion and queuing can be particularly pronounced during the holiday season as additional visitors seek to access the town centre and seafront via the same routes. The town caters for over 5 million day visits and over 4 million visitor nights each year as a collective industry is worth nearly £600 million a year<sup>33</sup>. Seasonal events, such as festivals, fireworks displays and horse races are all associated with increased congestion and traffic delay.
- 4.3.16** To evidence these issues, the TA draws on data collected during extensive traffic surveys on links and at junctions in order to develop the 'base year' (2018) traffic model for the assessment of the Scheme and a DM scenario of likely changes in traffic flow in the future. This builds on the conclusions presented in the Outline Business Case ("OBC") to form a compelling case that congestion, particularly during the AM and PM peaks, is not just a perception, but rather a very real problem for Great Yarmouth's residents both now and in the future.

4.3.17 The microsimulation model of Great Yarmouth provides an insight into the location of congestion hotspots in and around the town centre. **Plate 4-2**



*Plate 4-2 Congestion "heat map" AM peak 2018 (from PARAMICS microsimulation model)*

(reproduced from **Plate 4-6** in the TA) presents a congestion "heat map" for the 2018 base year, providing a snapshot of the locations and intensity of congestion on the local road network in the morning peak period. The heat map is only representative of an instant in time however it does provide a visual insight into which parts of the network are most affected by congestion. It uses a colour scale from blue to red, with red indicating areas with the greatest congestion.

**4.3.18** Key links and junctions are assessed in the TA on the basis that they are congested, or that they are close to the Scheme and could therefore experience significant changes in traffic because of it. Taking the AM peak period (and using data from **Table 7-13** of the TA), **Table 4-1** below compares 2018 base year link flows against flows predicted in 2023 in a DM scenario (i.e. in the absence of the Scheme). As a result of the increased demand which is built into the model, in the majority of cases it is predicted there would be increases in flows. Of particular relevance to the Scheme, there are marked increases on South Quay, Haven Bridge and Pasteur Road, which already suffer congestion due to capacity issues, as shown in **Plate 4-2**.

**4.3.19** The presence of congestion at key junctions indicated in the heat map in **Plate 4-2** is further supported by **Plate 4-3**, which illustrates both total aggregated MMQ lengths at key junctions in 2018 and the predicted increases by 2023 in the DM scenario. Each junction shown to be experiencing queuing both in the 2018 base model and in the 2023 DM scenario is also shown to be congested in **Plate 4-2**. For example, the Acle New Road/North Quay/Fullers Hill roundabout, which is a key junction on the edge of the town centre, is highlighted as suffering congestion according to the heat map. **Plate 4-3** correlates with this, showing total aggregated MMQ lengths on all approaches rising significantly in the 2023 'do minimum scenario.

*Table 4-1 Link flows (AM peak)*

Link	2018 Base	2023 Do Minimum
Breydon Bridge	2,803	2,730
Haven Bridge	1,937	2,436
North Quay	915	1,101
South Quay	1,863	2,276
Southgates Road	573	625
South Denes Road	231	268
Marine Parade	309	482
South Beach Parade	148	345
Admiralty Road	143	136
Sutton Road	27	35
Swanston's Road	31	37

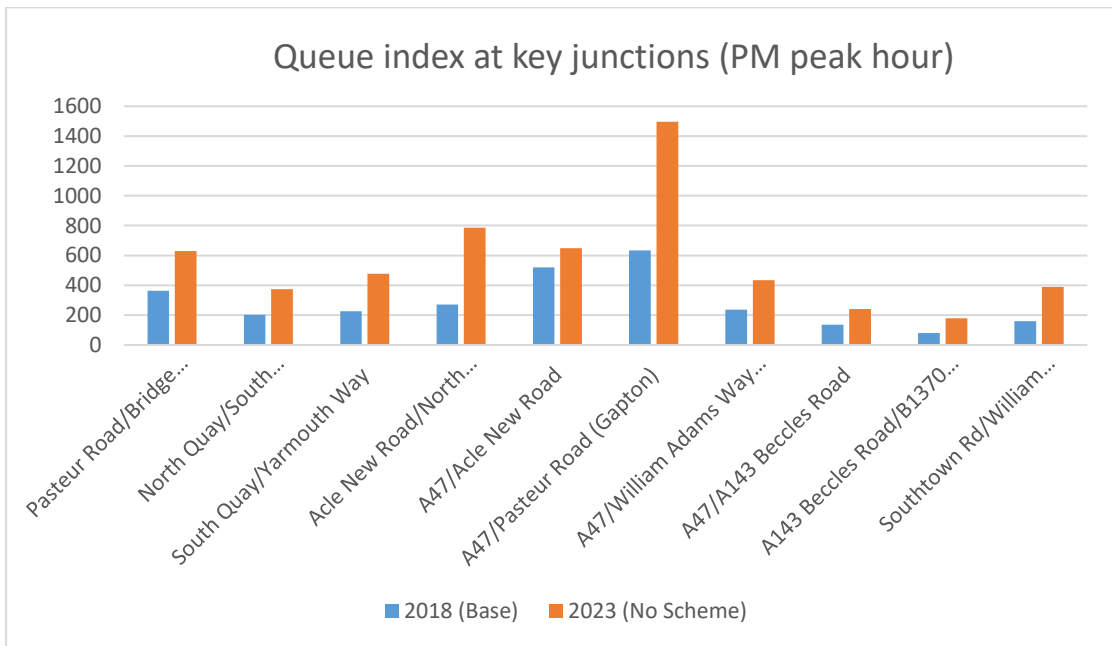
Link	2018 Base	2023 Do Minimum
Main Cross Road	97	120
Salmon Road	58	99
William Adams Way	750	767
Beccles Road	1,336	1,387
Southtown Road	686	880
A47 N of Harfrey's RB	3,125	3,247
A47 S of Harfrey's RB	3,183	3,350
Fuller's Hill	882	842
Yarmouth Way	630	733
Suffolk Road	301	306
Pasteur Road	1,326	1,645
Lawn Avenue	1,489	1,693

**4.3.20** Queuing and delays on the local road network were exacerbated in late June / early July 2018 when the Haven Bridge was closed for essential maintenance. The bridge suffered malfunctions to its opening mechanism resulting in severe congestion for road users and obstructing the passage of vessels along the river.

**4.3.21** The lack of a third river crossing impinges on the ability of the local road network to absorb the impacts caused by both planned and unforeseen closures of Haven Bridge, which is nearing 90 years old and requires regular maintenance. In addition, long-term improvements would likely require a lengthy closure of the Haven Bridge crossing which limits the Highway Authority's ability to implement any such work. In a press release dated 3<sup>rd</sup> July 2018, in the wake of unforeseen closure, NCC commented *"We know how important this crossing is for traffic in the town and how costly and frustrating delays can be. This is a key reason we have been working so hard to push the Third River Crossing project forward which will help to ease traffic congestion and support the local economy. Alongside the efforts to fix the current problems with Haven bridge we are looking at future improvements for the crossing, which is now over 90 years old, and have already commissioned reports to look at the best long-term solutions and possible funding sources"*<sup>34</sup>.

4.3.22 Further detail regarding resilience issues on Great Yarmouth’s highway network is provided in **Section 7.13** of the TA.

4.3.23 The provision of the Scheme would provide much needed resilience to the local highway network in being able to cope with periodic bridge closures.



*Plate 4-3 Forecast increase in aggregate queues (metres) 2018 - 2023 (PM peak) (Taken from TA)*

4.3.24 **Plate 4-3** illustrates a critical aspect of the transport case for the Scheme. Without the Scheme, congestion (as indicated by queuing) at key junctions is forecast to increase between 2018 and 2023, even with the A47 improvements, mainly because of forecast traffic growth. The effect of the Scheme, in seven out of the ten cases, would be to reduce the amount of congestion (as indicated by queuing). This reduction is relative to the more serious queuing that would occur if the Scheme was not built. For example, at Gapton roundabout, the forecast aggregate queue increases from 633m in 2018 to 1496m in 2023, as shown in **Table 7-5** in the TA.

4.3.25 The addition of a third river crossing would redistribute traffic flows between the east and west of the town, reduce pressure upon the existing crossing points and provide essential resilience to the local road network. It is envisaged that the Scheme would serve to redistribute traffic bound for South Denes from the existing crossings to the new crossing, thus relieving capacity on the local road network to cater for traffic associated with the town centre and visitor attractions on the seafront.

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### Local Connectivity and Severance

- 4.3.26** Great Yarmouth is effectively split in two on a north south axis by the River Yare. Land either side of the river is densely developed and, although only approximately 80m from one side to the other, the absence of a physical connection from the southern part of the peninsula to the western half of the town results in severance between the two communities. As an example, a resident of Peggotty Road on the South Denes peninsula would have to travel approximately 4.3 km by car (approximately 9 minutes) or 4.2 km on foot (approximately 50 minutes) to access employment at Harfrey's Industrial Estate, despite the fact that the locations are only a kilometre apart as the crow flies.
- 4.3.27** The town's main employment areas are also effectively split in two, with key sites such as Harfrey's Industrial Estate, Gapton Hall Industrial Estate and Beacon Park separated from sites east of the river such as South Denes. There is a proliferation of energy related businesses either side of the river and the current spatial disconnect between them means that any current face to face business transactions are subject to inefficient travel, resulting in increased fuel emissions, and any future potential for collaboration is hindered. This issue is explored in more detail in **Section 4.4** in relation to the GY Enterprise Zones.
- 4.3.28** The absence of a third river crossing not only creates difficulties in terms of access to employment opportunities and relationships between the town's businesses but also restricts access to community and educational facilities. For example, Peggotty Road to East Coast College, which is on Suffolk Road to the west of the river, is currently a 3km drive (approximately 9 minutes). The shortest route by car is via Admiralty Road, Queen's Road, South Quay, Haven Bridge, Pasteur Road, Southtown Road, Station Road, Stafford Road and Suffolk Road. On foot the journey takes approximately 39 minutes via the same route. Again, the two locations are only approximately 900m apart as the crow flies.
- 4.3.29** The barriers and effects created by severance within Great Yarmouth highlight the need for the Scheme in improving connectivity. Improved links between the growing employment opportunities in and around the Port and Outer Harbour and local labour market is essential to facilitate the sustainable economic growth of the town.

### Difficulties for Public Transport Connections

- 4.3.30** The reliability of bus journeys within the town is impacted by the congestion suffered in the town centre and on the SRN. Similar issues in terms of severance, limited crossing opportunities and congestion all impact the effective operation of the bus network. **Section 4.8** of the TA provides greater detail on the bus network and includes a plan showing existing bus routes.

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**4.3.31** Bus routes 1, X1, X11, 271, 5, 6, 7, 8 and 9 all run between Gorleston and Great Yarmouth town centre via Haven Bridge. As set out in the earlier paragraphs within this section, the Haven Bridge experiences congestion and queueing, which these services both contribute to and suffer from. In addition, all of these services use Southtown Road to access the bridge. Maximum queue lengths on Southtown Road towards Haven Bridge were observed as up to 110 metres during surveys in 2018. Taking the AM peak as an example, **Table 4-1** (above) sets out that two-way flows on Southtown Road are set to rise from 686 in 2018 to 880 by 2023, in the DM scenario.

**4.3.32** **Section 5.5** of this document considers the impact of the Scheme on bus journey times during both the AM and PM peaks and explores the opportunities presented by the Scheme to improve bus journey times in the future.

#### Walking and Cycling Accessibility Barriers

**4.3.33** The division of Great Yarmouth by the River Yare limits routes for pedestrians and cyclists to travel to and from the peninsula. There are no footways on the Breydon Bridge and as such the only means of access for pedestrians across the river is provided by Haven Bridge. As a result, for many trips the time and distance involved is significant when compared with the equivalent distance with the Scheme in place. For example, building on the arguments set out in relation to severance, persons living on Alpha Road seeking employment at the Outer Harbour would have to travel over 5 km, taking around an hour on foot. A Non-Motorised User (NMU) Audit Survey undertaken in 2016, which is referenced in **Section 4.10** of the TA, found there to be typically over 4,700 pedestrian crossing movements across Haven Bridge each day.

**4.3.34** Operational issues, such as that described in **paragraph 4.3.20**, or routine maintenance on Haven Bridge, can lead to there being no safe route by which people can cross the river on foot. Historically, in these circumstances a free taxi service has been deployed to transport stranded pedestrians from one side via the road diversion. This situation causes inconvenience for pedestrians as well as generating additional fuel emissions and cost.

**4.3.35** Great Yarmouth's cycle network, as shown in **Plate 4-4**, comprises sections of National Cycle Network (Routes 30 and 517) and the Regional Cycle Network, as well as other signposted on-road cycle routes (referred to as pedalways), advisory cycling routes and some traffic free cycle routes.

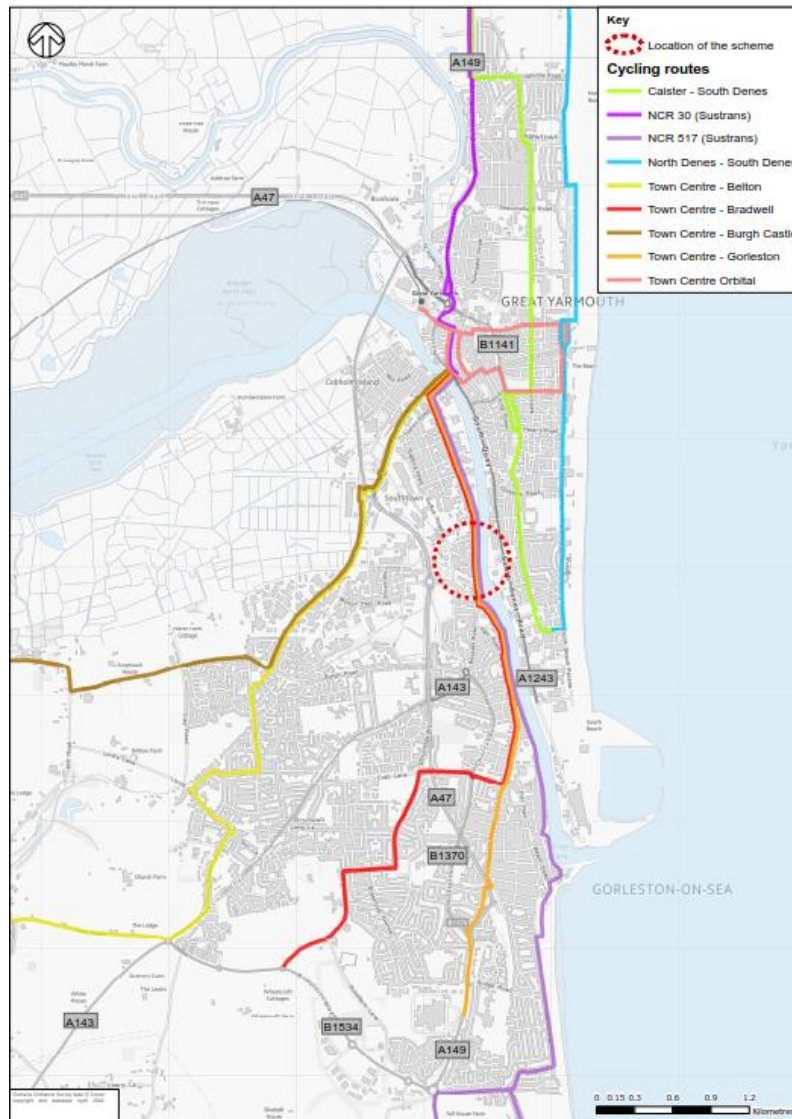


Plate 4-4 - Great Yarmouth Cycle Network (taken from the TA)

4.3.36 The TA at **paragraph 4.9.8** highlights that existing opportunities for cyclists to cross the River Yare are limited. The Breydon Bridge has designated cycle lanes on either side of the carriageway, however, these are unsegregated and pose a risk to cycle users due to the nature of the road (50mph speed limit). The Haven Bridge has a shared use path leading up to it on either side of the river as part of the National Cycle Network Route 517, however, there is no provision on the crossing itself and cycle users have to dismount along the east bank of the River Yare.

4.3.37 **Table 4-9** of the TA states that on a typical weekday there are 1,056 cycle crossing movements across Haven Bridge each day (from 7am – 7pm) and that the busiest time for cycle activity at the Haven Bridge is during the



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evening peak period, reflecting its use for journeys to and from work. Due to the limited opportunities to cross the river by cycle, the town's cycle network is currently unlikely to fulfil its potential to carry a greater proportion of work, leisure and other trips. The need to enhance accessibility for NMUs is recognised in the NPS NN at paragraph 2.9. Further to this at paragraph 3.17, the NPS NN states that "*there is a direct role for the national road network to play in helping pedestrians and cyclists*". Paragraph 3.21 of the Transport Investment Strategy also states that "*Providing new cycle-ways and road networks that accommodate the needs of cyclists and walkers can encourage people to shift from cars to more sustainable and healthy forms of travel, particularly for short local trips that make up the bulk of personal trips*".

- 4.3.38** In terms of the Scheme's interface with the cycle network, Southtown Road is designated as National Cycle Network Route (NCR) 517 and runs from Great Yarmouth town centre, through the application site and on to Malthouse Lane and Riverside Road before continuing along Gorleston seafront. Pedalway Routes 5 ('Town Centre to Bradwell' in **Plate 4-4**) and 6 ('Town Centre to Gorleston' in **Plate 4-4**) follow the same route before turning on to Ferry Hill at the Riverside Road junction towards Bradwell and Gorleston respectively. The Caister to South Denes cycleway runs through the town centre towards the southern end of the peninsula via Admiralty Road, which forms the most easterly extent of the Principal Application Site.
- 4.3.39** Cyclists experience the same issues as pedestrians and motorists in terms of the convoluted route they are required to take in order to travel between destinations either side of the river. For example, a cyclist seeking to reach Gorleston from Admiralty Road on the South Denes peninsula would need to travel along the Caister to South Denes cycleway, the town centre orbital and onto NCR 517, covering a distance of around 6km and taking approximately 20 minutes. This route encompasses Haven Bridge and, as a result, cyclists can be subject to the same delays as motorists unless choosing to dismount and wheel their bikes along the footway.

### Personal Injury Accidents

- 4.3.40** Paragraph 4.7.1 of the TA sets out that in the five years from June 2013 to June 2018, there were 637 recorded personal injury accidents (PIAs), in the Great Yarmouth area, of which 527 caused slight injuries, 106 caused serious injuries and four were fatal. **Plate 4-11** in the TA illustrates the geographical distribution of PIAs within the town.
- 4.3.41** The dependency of all road users, including NMUs, upon the Haven Bridge as a means of accessing the town centre and South Denes peninsula from locations west of the river results in the concentration of pedestrians, cyclists, light vehicles and heavy vehicles on roads within the town centre. The TA highlights that of the 192 accidents involving non-motorised users recorded between June 2013 to June 2018, 89 occurred close to the town centre. NMU

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accidents involving serious injuries included two cycle accidents and one pedestrian accident on North Quay and two cycle accidents on the Haven Bridge. The redistribution of traffic, particularly heavy goods vehicles (HGVs), from roads within the town centre to routes directly between the SRN and South Denes peninsula, would reduce the number of interactions between NMUs and motorists.

### Summary

4.3.42 In summary, this section demonstrates a vital need for the Scheme in addressing issues relating to lack of connectivity between the SRN and the South Denes and associated problems for the local highway network in terms of congestion, severance, and under-capacity. Unless addressed the issues will persist and likely worsen concurrent with additional demand, thus significantly impacting the operation of the network as a whole and hampering the Port's ability to perform its nationally significant role in serving the offshore wind, oil and gas industries.

## 4.4 The Regeneration Case

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4.4.1 Great Yarmouth's long-standing and growing role in oil, gas and the offshore wind industries is set out in **Section 3.6** of this document, with the deep water Outer Harbour at the southern end of the peninsula being strategically located, with assets ideally suited to serve the growing needs of the industries. There are relatively few ports with the capability to handle the diverse range and scale of wind farm components and the vessels that ship them. A strategic review of UK east coast staging and construction facilities, published in August 2016 on behalf of the Wind Industry Council<sup>35</sup>, identified Great Yarmouth as a Port capable of accommodating staging activities in addition to one manufacturing activity simultaneously. It also cites the continued expected growth in the offshore wind sector, referencing Government support for another 10GW of capacity in the 2020s to give a total installed capacity of approximately 20GW by the end of 2030 and points to confidence within the sector that Great Yarmouth is capable of servicing the demand. The report states that: *"Industry feedback was that developers of Scottish and East Anglia projects were confident that local ports would satisfy their turbine staging demand during the 2020s. Most of these consultees also said they expected the ports in those regions to be able to cope with any future peaks in local deployment. Assuming an average annual deployment of 1GW per year in the 2020s (consistent with the Government's ambition described in Section 3.1), this feedback correlates with our port assessment in Section 2 that suggests Nigg Yard and Dundee are well placed to deliver Scottish projects and Great Yarmouth will be available for projects in the East Anglia region"*.

4.4.2 In addition, **Section 3.5** of this document provides background to Great Yarmouth EZ Sites, in addition to the Local Development Order areas they

benefit from and describes their importance for the economic prosperity of the town.

- 4.4.3 The relationship between the provision of essential infrastructure and economic growth, is well documented notably in the NPS NN, the Industrial Strategy and in the Ports Connectivity Study, as described in **Section 4.2** of this document. The expected growth of the Port, Great Yarmouth EZ Sites and other employment areas in the town is reliant on connectivity and reliable journey times from the SRN. In the absence of a third river crossing, the issues caused by congestion on existing routes between the SRN and South Denes peninsula, as described in **Section 4.3**, would be exacerbated by further growth in employment around the Port and South Denes EZ Site, potentially discouraging further inward investment. An assessment of the Wider Economic & Regeneration Benefits of the Scheme (“The Regeneration and Wider Impacts Report”)<sup>36</sup>, which was prepared in support of the OBC, references discussions with local stakeholders and property agents in highlighting the perceived importance of the Scheme in sustaining and growing the offshore energy sector and its supply chain in the borough. The Regeneration and Wider Impacts Report states that: *“Improved accessibility to the port and employment land at South Denes, via the TRC, was cited by consultees as being a key factor, amongst others, in reorientating investor and developer perceptions of this location. There will always be a requirement for some occupiers to use the port or to be located in close proximity to it. However, our consultees cited that a TRC, in combination with existing proposals to rationalise and regenerate employment land (e.g. to develop the Energy Park) at South Denes, would be key factors which will help to drive up investor and developer interest as the advantages of being located in Great Yarmouth become more tangible”*.
- 4.4.4 In 2017, Norfolk County Council produced a document titled ‘Great Yarmouth Third River Crossing: Building Futures’<sup>37</sup> in order to demonstrate the level of support for the Scheme within the local community. The document references the results of feedback gathered from local people, businesses and public authorities via public consultation, including that of a representative of Peterson Ltd, an energy logistics business based on the peninsula. *“A third river crossing would ensure ongoing development of, and investment, in the harbour area. As logistics specialists we see tremendous benefits for the local economy and our own business with an enhanced road infrastructure enabling us to continue to grow our business and stimulate growth in the local area”*.
- 4.4.5 The Regeneration and Wider Impacts Report also draws on the results of surveys with Norfolk businesses in 2016 relating to the proposed A47 Acle Straight improvement works, as described in **Section 3.2**. Although the survey was conducted for the purposes of a different development, the results remain valid for the Scheme given the general nature of the themes included. For instance, businesses were asked to rate the attractiveness of the county

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as a business location based on a number of factors. The Regeneration and Wider Impacts Report summarises the responses to this question by stating *“The least attractive factor by far is transport links – more than two thirds of respondents ranked these as unattractive or very unattractive. This was most significant for businesses based in Great Yarmouth, where 76% of respondents found Norfolk unattractive or very unattractive based on transport links”*.

- 4.4.6 The Consultation Report (DCO Document **5.1**) contains an analysis of responses received from the statutory consultation on the Scheme. This includes those responding under the statutory consultation process, which targeted local authorities, prescribed consultees and those with an interest in land affected by the Scheme, and for those living in the vicinity of the Scheme. The results are further supportive of the need for the third river crossing - of those that answered the question *“Do you agree this scheme is needed?”*, 48.6% strongly agreed and 19.3% agreed. Although the identity of individual respondents cannot be revealed due to General Data Protection Requirements, one such supportive response stated *“I think anything that can help to regenerate this area of Great Yarmouth is a positive move. If the road network is improved in this way then I believe it will encourage new businesses to establish themselves in the area”*.
- 4.4.7 The need for the Scheme is also apparent at a sub-national level as it would expedite the delivery of growth in housing and employment. The Norfolk and Suffolk Economic Strategy<sup>38</sup> (NSES) sets out plans to deliver 140,000 new homes, 88,000 new jobs and 30,000 new businesses in the region by 2036. The NSES builds on the regional growth ambitions of its predecessor, the New Anglia Strategic Economic Plan<sup>39</sup> (SEP), which states at paragraph 6.39 that *“The two towns suffer from congestion arising from bottlenecks at key locations, including North Quay and Haven Bridge in Great Yarmouth and Lowestoft Bascule Bridge. Both towns have limited river crossings forcing traffic onto a few congested routes”*.
- 4.4.8 The built-up area of Great Yarmouth has also been assigned Tier 2 Assisted Area status, which, under European state aid rules, permits the Government to provide financial support through regional aid to undertakings, typically businesses, for new investment in the area. This means projects can be given more support from New Anglia’s Growing Business Fund and EU pot, thus making the Great Yarmouth EZ Sites more attractive to inward investment.
- 4.4.9 The Great Yarmouth Economic Growth Strategy (2017 – 2021)<sup>40</sup> (“the GY Economic Growth Strategy”) (which is further discussed in **Section 8.5** of this document) was developed by Great Yarmouth Borough Council (GYBC) and sets out the key sectors best placed to deliver employment growth over the Strategy’s lifespan. Included is a list of aims to achieve a Prosperous Physical Environment and Improved Infrastructure. The Strategy identifies four broad aims by which to deliver its economic aspirations, being:

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- *“To ‘create a stronger sense of place’ within Great Yarmouth, as aspired to in the Borough’s Corporate Plan;*
  - *To facilitate further growth and ensure sustainability in the Borough’s three key sectors — namely, Tourism & Culture; Energy, Engineering & Advanced Manufacturing and Port & Logistics;*
  - *To ensure that people in the Borough have the right opportunities to succeed. This need extends from the Key Sectors, where upskilling may be paramount, to the residents of the Borough’s deprived neighbourhoods A prosperous physical environment and improved infrastructure; and*
  - *To create the right environment in which to invest, work, visit and live”.*

**4.4.10** A key objective of the GY Economic Growth Strategy is defined as to *“provide land and premises for the energy sector development, improved transport, broadens connectivity and flood defences and advance a clear plan for a revived town centre”.*

**4.4.11** The GY Economic Growth Strategy identifies the GYTTC as a key component of the infrastructure required to support new development.

**4.4.12** The Regeneration Case is outlined in the following sections:

- The role of Great Yarmouth as a hub for energy industries and other NSIPs;
- Enabling wider sub-national growth;
- The Enterprise Zone and the challenges to its fulfilment; and
- Regeneration of Great Yarmouth town centre

#### **The role of Great Yarmouth as a hub for energy industries and other NSIPs**

**4.4.13** The Port is already established as a hub for offshore wind, oil and gas operations and this is set to increase further. The construction of the Outer Harbour in 2010 represented one of the largest economic regeneration projects ever supported by NCC with the investment rewarded by the decisions of Scottish Power Renewables, Vattenfall and Equinor to use the new harbour as their construction and marshalling point for North Sea operations. The strategic review of east coast staging and construction facilities for offshore wind farms evidences a *“strong industry preference for using local ports for turbine staging activity, if they have suitable infrastructure and are available, of if such capability can be developed at a competitive cost”.*

**4.4.14** Great Yarmouth’s proximity to the numerous offshore wind farm developments outlined in **Section 3.8** and the fact the Port offers the necessary water depth, low tidal range and strong existing supply chain and

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skills base to support offshore wind development places the town in prime position to exploit the significant investment opportunities on offer.

**4.4.15** As highlighted throughout **Section 4.3**, the lack of a direct access from the SRN to the Port and the resulting congestion within the town makes east-west movements difficult and journey times unreliable and without action could hinder the Port's ability to fully exploit the significant future investment on offer.

#### **Enabling Wider Sub-National Growth**

**4.4.16** As set out in **Section 3.7** of this document, Great Yarmouth suffers from deprivation, however the growth of offshore energy generation and associated industries provides significant opportunity for economic growth, as set out above. The NSES highlights the opportunities presented by the energy sector, stating on page 27 that "*Great Yarmouth and Lowestoft offer a huge growth opportunity, with affordable residential and commercial property and investment under way in key infrastructure. However, both towns are also amongst the most deprived and low skilled places in Norfolk and Suffolk. We will work to connect residents with the opportunities afforded by the energy sector's growth*"<sup>38</sup>. The long term economic plan for the East of England also acknowledges, and aims to exploit, the inherent strengths of the East by "*reaping the benefits of more than £50bn that will be invested in the energy sector over the next 20 years*"<sup>41</sup>.

**4.4.17** In 2011, the Government designated a number of local and central government partnerships, led by LEPs, with the aim of supporting businesses seeking to invest in manufacturing for the offshore renewable industry. Centres for Offshore Renewable Engineering ("CORE") were established to formally recognise the relationship and Great Yarmouth and Lowestoft was identified as one. The receipt of CORE status, along with the designation of the South Denes EZ Site and the Beacon Park EZ Site (see below) have combined to signpost the area for future investment in offshore engineering.

**4.4.18** The NSES hails the East of England Energy Zone as "*unrivalled in the UK for its unique mix of wind power, gas and nuclear energy production*" and identifies Great Yarmouth as being "*at the centre of the world's largest market for offshore wind*", also referencing the 50 years of experience and expertise present within the local supply chain. The NSES identifies Great Yarmouth as a major growth location and acknowledges the need for infrastructure improvements to facilitate growth. "*Boosting our infrastructure is central to delivering all our ambitions. Our priority places are interconnected, dependent on transport links and draw on many of the same labour markets and supply chains. We will prioritise improvements to our digital and transport infrastructure and utility provision, using our own funding and making the case to Government where national investment is needed*".

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4.4.19 Great Yarmouth is ideally positioned to exploit and continue to make a nationally significant contribution to supporting the offshore wind, oil and gas industries. However, this potential may be hampered if the traffic problems identified in **Section 4.3** of this document are not addressed.

#### The Enterprise Zone and the challenges to its fulfilment

4.4.20 Enterprise Zones are the key tools in the Government's long term economic plans. The Space to Innovate Enterprise Zone, opened in 2012 and comprises 16 sites across Norfolk and Suffolk, including the Great Yarmouth and Lowestoft Enterprise Zone. The Space to Innovate Enterprise Zone was formed to help deliver the aspirations of The New Anglia Strategic Economic Plan (SEP), which is the precursor to the NSES. The NSES now targets the delivery of more jobs, new businesses, new housing, and increased productivity in order to grow the region's economy £17.5 billion in real terms by 2036. Specific 2036 aspirations include:

- 88,000 net new jobs;
- 30,000 new successful businesses;
- 140,000 new homes;
- Gross Value Added (GVA) per hour of £39;
- A higher proportion of people engaged in the labour market than across the UK;
- 66% of the population with NVQ3+; and
- Increased median wages by £200 more per week.

4.4.21 In order to deliver these aspirations, the NSES identifies the need for continued support for connectivity improvements, acknowledging that *"Boosting our infrastructure is central to delivering all our ambitions"*. The SEP also specifically supports the preparation of a third river crossing scheme highlighting that the town suffers from *"congestion arising from bottlenecks, at key locations, including North Quay and Haven Bridge"*, and that the *"limited river crossings (force) traffic onto a few congested routes. Our infrastructure programme is aimed at tackling these"*.

4.4.22 **Plate 3-1** illustrates the location and extent of the Great Yarmouth EZ Sites, including the associated LDO boundaries, as well as their geographical relationship. The South Denes EZ Site is located on the southern side of the peninsula and comprises 58.8 hectares whilst the Beacon Park EZ Site comprises 15.7 hectares and is situated immediately southwest of Gorleston with direct links to the A47.

4.4.23 Adopted by GYBC in May 2012, and active for 10 years, the Local Development Order (LDO) for South Denes grants planning permission

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(subject to conditions) for specific development within that order. This includes the provision of support to the energy, offshore engineering, ports and logistic sectors, including business rate discounts of up to £275,000 over five years. The LDO is essentially a mechanism by which planning regulations are relaxed, enabling employment growth and meeting the aspirations of the NSES and development plan.

- 4.4.24 The LDO for Beacon Park aims to “*foster economic growth and provide the opportunity for service, high-tech/research and development sector businesses, particularly those associated with the off-shore energy industry to prosper and grow*”<sup>42</sup>.
- 4.4.25 Despite the geographical proximity of the two Great Yarmouth Enterprise Zone Sites, in that they are approximately 2.5km apart as the crow flies, offshore energy related and other businesses wishing to access the Port from the Beacon Park EZ Site must travel approximately 10.7km by road via Haven Bridge. Improved connectivity between the town’s EZ Sites, and Beacon Park EZ Site and the Port, would allow greater local collaboration between off-shore energy related businesses, and other local industries, bringing potential for greater synergy and productivity between the two locations.
- 4.4.26 The NALEP response to the statutory consultation for the Scheme acknowledges the potential opportunities for enhanced collaboration between energy related businesses operating in Norfolk and Suffolk, such as those within the South Denes EZ Site and the Beacon Park EZ Site and further afield in Lowestoft. “*Norfolk and Suffolk is the only place in the UK where all these forms of resource extraction and energy generation exist together. This offers significant opportunities for local collaboration and innovation and through wider national and international markets, boosting our clean growth offer to the world*”.

#### **Regeneration of Great Yarmouth Town Centre and Seafront**

- 4.4.27 Great Yarmouth is the third largest tourist destination seaside resort in the UK and, based on 2016 Plates, the industry is now worth £600 million annually to the local economy both through overnight and day visitors<sup>33</sup>Error! Bookmark not defined.. The tourism industry is the biggest single sector employer, including 34% of the district’s workforce<sup>33</sup>. Significant recent investment has also been made in new visitor attractions, such as the Edge casino, and improvements to existing facilities.
- 4.4.28 The main pull for tourism is the Golden Mile, however as is recognised in the Great Yarmouth Borough Profile 2017, much of the townscape also has heritage merit including South Quay, the town wall, St Nicholas, St George, Nelson Monument, The Rows and Fisherman’s Hospital.
- 4.4.29 Town centre congestion, as described in **Section 4.3**, has a knock-on effect for journeys made by visitors to the Seafront but also contributes to an



increased preference for out-of-town shopping and the associated decline in the town centre over the past 5 – 10 years. In January 2015, the town centre lost the King Street Marks and Spencer's store to Gapton Retail Park. This trend conflicts with the retail hierarchy set out in the GY Core Strategy whilst also contributing to congestion at peak shopping times and at weekends around Gapton Roundabout.

- 4.4.30** As a result of these factors the town can be perceived as inaccessible by shoppers, many indicating they travel to alternative shopping centres such as Norwich. The trend in losing shoppers to other retail centres is supported by evidence within the Borough Council's 2012 Retail Study<sup>43</sup> ("the 2012 Retail Study"), which reported Great Yarmouth slipping in the National Centre Ranking from 183rd in 2007 to 200th place in 2011. The Retail Study also comments "*following the significant new retail and leisure investment in Norwich over the last decade (including Chapelfield) the centre has increased its draw of shoppers and expenditure from Great Yarmouth for major fashion shopping purchases. Given the proximity of Great Yarmouth to the regional centre of Norwich, it is likely that Great Yarmouth will continue to lose some trade to Norwich, especially from its more rural hinterland*".
- 4.4.31** According to the Great Yarmouth Annual Planning Monitoring Report of December 2017<sup>44</sup>, although the number of empty retail units in the town centre fell slightly from 66 in 2015 to 60 (17.8%) at the time of the report, this remains substantially higher than the national average (10.1%).
- 4.4.32** Traffic also detracts from the setting of the most important historic areas in Great Yarmouth, such as South Quay, further details of which are provided in **Chapter 9** of the ES (DCO Document **6.1**).
- 4.4.33** **Table 4-2**, which is taken from the TA, provides the results of surveys undertaken in March 2018 and shows that South Quay carried 23,308 vehicles over a 12-hour period between 7am and 7pm. Congestion on South Quay is already an issue, as shown in **Plate 4-3**, with total MMQ lengths of all approaches at the North Quay/South Quay/Bridge Road junction recorded at 203m in the 2018 base model and predicted to increase to 374m in the 2023 DM scenario, as set out in **Table 7-5** of the TA.

*Table 4-2 Two-way traffic volumes of 12 hrs (7 am – 7 pm)*

Location	March 2018
A1243 Haven Bridge (across River Yare)	22,354
South Quay, south of Haven Bridge	23,308
North Quay, north of Haven Bridge	13,436
Acle New Road (across River Bure)	24,746
Fullers Hill	9,392

Temple Road	No data
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**4.4.34** As highlighted in the GY Core Strategy and the Great Yarmouth Town Centre Regeneration Framework & Masterplan (May 2017)<sup>45</sup> (“the GY Regeneration Framework and Masterplan”), the contents of which are addressed in more detail in **Section 8**, there is a need to relieve congestion in these historic areas in order to protect their setting and unlock their development potential. In particular, the growth aspirations for the Great Yarmouth waterfront area, which are stated in the GY Core Strategy as 1000 new dwellings, 16,500 m<sup>2</sup> of employment space and 14,200 m<sup>2</sup> of retail and leisure floorspace within previously developed land in the heart of Great Yarmouth, would be complemented by the provision of a third river crossing. The prevalence of congestion within the Waterfront Area boundary, such as on Haven Bridge and South Quay, is incompatible with the overall development aspiration for the area, which according to the Core Strategy is to “*create a series of vibrant, mixed-use urban neighbourhoods that meet the needs of existing and future residents, with easy access to jobs, community facilities and public transport services, thus reducing the need for the private car and creating a more sustainable environment*”.

**4.4.35** Supporting text in Core Strategy Policy CS17, which relates to the Waterfront area, states that “*Policies CS14 and CS16, along with the emerging Infrastructure Plan, will ensure that key infrastructure to support the development of this site is appropriately phased*”. The third river crossing is listed as a high priority scheme within Policy CS16.

### Summary

**4.4.36** This section has set out the regeneration need case for the Scheme. Great Yarmouth is in prime position to benefit from economic growth associated with significant national support and investment in the offshore wind, oil and gas industries. The South Denes EZ Site and the Beacon Park EZ Site were formed to exploit such opportunities, however, the lack of a direct link between the SRN and Port forces heavy traffic onto unsuitable routes within the town centre causing congestion and delays. Unless resolved, the town suffers from a lack of the resilient transport infrastructure necessary to capitalise on the planned investment whilst regenerating its town centre and maintaining a thriving visitor economy.

## 4.5 Scheme Objectives

**4.5.1** The objectives for the Scheme were initially developed in the OBC and have been further refined to more clearly reflect the Scheme’s role in addressing the transport and regeneration needs outlined in **Sections 5.5** and **5.6**. According to ‘The Plan’<sup>46</sup>, published by GYBC, the high-level ambition for Great Yarmouth is “*to be a fast growing coastal ‘Enterprise Town’. Attracting new business, inward investment, and fully exploiting the port and*

*opportunities of offshore energy industry. Local people will have the skills to work in the renewable energy, high tech electronic and engineering sectors accessing the high wages that are on offer within the borough. Local and smaller scale businesses will also thrive and grow”.*

#### 4.5.2 The Scheme objectives are defined as follows:

- To support Great Yarmouth as a centre for both offshore renewable energy and the offshore oil and gas industry, enabling the delivery of renewable energy NSIPs and enhancing the Port's role as an international gateway;
- To improve access and strategic connectivity between Great Yarmouth Port and the national road network thereby supporting and promoting economic and employment growth (particularly in the Enterprise Zone);
- To support the regeneration of Great Yarmouth, including the town centre and seafront, helping the visitor and retail economy;
- To improve regional and local access by enhancing the resilience of the local road network, reducing congestion and improving journey time reliability;
- To improve safety and to reduce road casualties and accidents, in part by reducing heavy traffic from unsuitable routes within the town centre;
- To improve access to and from the Great Yarmouth peninsula for pedestrians, cyclists and buses, encouraging more sustainable modes of transport and also reducing community severance; and
- To protect and enhance the environment by reducing emissions of greenhouse gases and minimising the environmental impact of the Scheme.

#### 4.5.3 **Table 4-3** demonstrates the alignment between the scheme objectives and the vision and strategic objectives of the NPS NN.

*Table 4-3 Alignment between scheme objectives and NPS NN*

Vision and Strategic Objective of the NPS NN (extracted from Section 2 of the document)	Scheme Objective
<b>Networks with the capacity and connectivity and resilience to support national and local economic activity and facilitate growth and create jobs.</b>	To support Great Yarmouth as a centre for both offshore renewable energy and the offshore oil and gas industry, enabling the delivery of renewable energy NSIPs and enhancing the Port's role as an international gateway.
	To support the regeneration of Great Yarmouth including the town centre and

	seafront, helping the visitor and retail economy.
<b>Networks which support and improve journey quality, reliability and safety.</b>	To improve regional and local access by enhancing the resilience of the local road network, reducing congestion and improving journey time reliability.
	To improve safety and to reduce road casualties and accidents, in part by reducing heavy traffic from unsuitable routes within the town centre.
	To improve access to and from the Great Yarmouth peninsula for pedestrians, cyclists and buses, encouraging more sustainable modes of transport and also reducing community severance.
<b>Networks which support the delivery of environmental goals and the move to a low carbon economy</b>	To protect and enhance the environment by reducing emissions of greenhouse gases and minimising the environmental impact of the Scheme
<b>Networks which join up our communities and link effectively to each other</b>	To improve access and strategic connectivity between the Port and the national road network thereby supporting and promoting economic and employment growth (particularly in the Enterprise Zone).

## 5 Scheme Evolution, Assessment of Options and How the Scheme Meets the Need Case and Objectives

### 5.1 Introduction

- 5.1.1 This section provides an overview of the Scheme's evolution, the development and assessment of options and how the preferred option meets the transport and regeneration need identified in **Section 4**.
- 5.1.2 As set out in **Section 7** of this document, the policy framework for the Scheme contained within the NPS NN requires applicants to comply with requirements on the assessment of alternatives, particularly the EIA Regulations 2017 (requiring “a description of the reasonable alternatives studied by the applicant”.....and “an indication of the main reasons for the option chosen”), and any other legal requirements for the consideration of alternatives such as under the Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (“EU Habitats Directive”) and Council Directive 2000/60/EC establishing a framework for Community action in the field of water policy (“EU Water Framework Directive”). The NPS NN (paragraph 4.27) also states that all projects should be subject to an options appraisal, however for schemes such as national road schemes, where option appraisal of alternatives is part of the investment decision, “it is not necessary for the Examining Authority and the decision maker to reconsider this process, but they should be satisfied that this assessment has been undertaken”. Paragraph 1.5 of the NPS NN makes it clear that highway schemes proceeding under a Section 35 direction are regarded as part of the national road network.
- 5.1.3 This section therefore sets out the option assessment that has been undertaken but does not seek to repeat or rework that exercise by reference to the current traffic modelling.
- 5.1.4 **Chapter 3** of the ES (DCO Document **6.1**) addresses the main alternatives that have been considered, the reasons for the selection of the Scheme and describes how alternatives have been considered in the context of the EU Habitats Directive and EU Water Framework Directive (WFD) and should be read in conjunction with the Case for the Scheme. A brief summary of the options appraisal process is however provided in **Section 5.2** and **5.3** below.

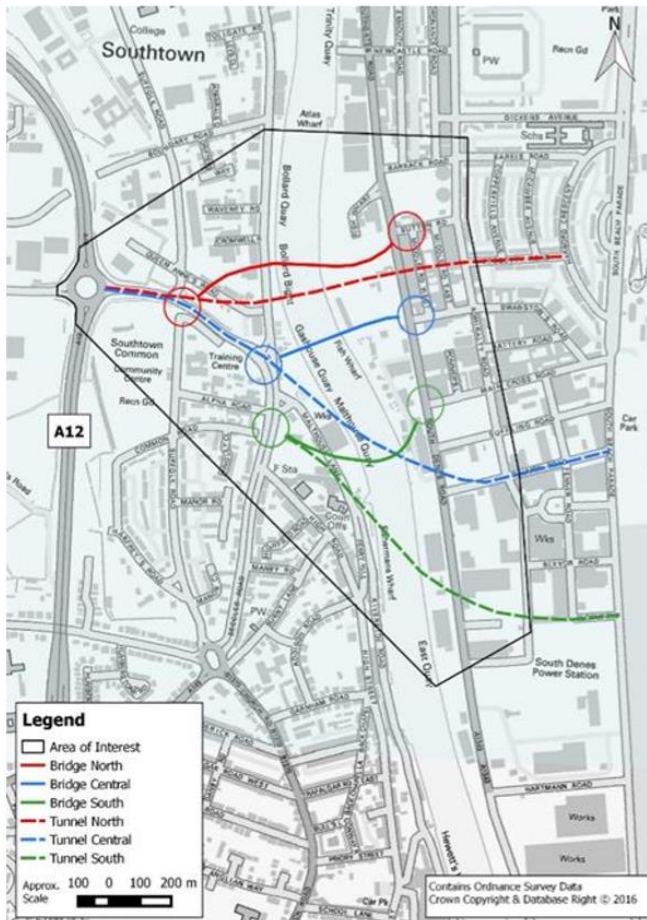
### 5.2 Developing Options

- 5.2.1 In 2007 the Applicant commissioned a Stage 1 Scheme Assessment Report (SAR) in order to identify the environmental, engineering, economic, and traffic advantages, disadvantages and constraints associated with broadly

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defined improvement strategies for the Scheme. The Stage 1 SAR identified the preferred alignment for the Scheme and the feasible engineering options. A Stage 2 SAR was commissioned by the Applicant in 2009 in order to develop the options further and considered the potential design solutions for bridge and tunnel structures and potential alignment options for these solutions. It identified three preferred options for the Scheme and provided a comparison between the performance of them. An Options Assessment Report<sup>47</sup> (OAR) (Appendix 3A of DCO Document **6.2**) and Final OAR<sup>48</sup> (Appendix 3B of DCO Document **6.2**) were prepared in 2016 and 2017 respectively in support of the OBC and summarise the previous comprehensive options assessment work carried out. The OAR and FOAR are referenced both in this section and in **Chapter 3** of the ES.

- 5.2.2** Before considering physical interventions, a number of non-road options, including traffic restraint and/or charging to reduce demand, improvements to the existing network (e.g. increasing the capacity of existing bridges) and improvements to other modes such as walking, public transport and cycling were explored. However, as detailed in the OAR, the conclusion reached was that, in the context of Great Yarmouth, these options could not by themselves address the needs for the Scheme. For these reasons, non-road options were not considered further in the initial sifting of options. Complementary improvements to the wider network, the management of traffic, and provision for more sustainable modes were instead considered in the context of, and to support, a third river crossing scheme.
- 5.2.3** Guided by constraints, including the predicted number of bridge openings at various points on the river, the potential impact of a new structure on the navigation of the river, and the need to minimise impacts on existing built development, an area of interest was identified, as shown in **Plate 5-1** below.



*Plate 5-1 Area of interest for initial option generation and potential crossing locations*

- 5.2.4 Within the area of interest, three broad alignment corridors were considered: northern, central and southern, also shown in **Plate 5-1**. In each corridor, a high level and low level bridge option (on similar alignments) and a tunnel option were devised, giving nine different main options with six different alignments. For the purposes of the Stage 1 options assessment process both the high-level and low-level bridge options were envisaged as a bascule-type bridges due to the need to ensure continued navigation by vessels along the river past any new structure.
- 5.2.5 The Stage 1 SAR incorporated environmental, transport, accident and economic assessments to determine which of the nine crossing options should be taken forward for further development and assessment. The initial appraisal demonstrated that a third river crossing was feasible and highlighted the main design and environmental issues involved. Although a bridge was likely to be more cost-effective than a tunnel, the appraisal showed that both bridge and tunnel options would produce benefits in excess of their likely costs.

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- 5.2.6** A Stage 2 SAR was commissioned by the Applicant in 2009 to further consider the most appropriate location and form of crossing. A detailed assessment of the various options was provided in a Structural Options Working Paper (2009)<sup>49</sup> which discounted the fixed bridge, swing bridge and lift bridge options on grounds including construction and maintenance costs, visual impact, and risks from collision by ships. It concluded that a bascule bridge represented the most appropriate type of bridge. A summary of the conclusions of the Structural Options working paper is presented in **Table 3.6** of the ES (DCO Document **6.1**).
- 5.2.7** The Stage 2 SAR went on to use detailed data on commercial vessel movements within the inner harbour to determine the likely number of bridge openings required for different locations. It concluded that the further south the bridge was located, the more openings would be required. Further north, the openings would be fewer, however cost of construction would be higher, attributed to the requirement for more land and longer approach roads. A bridge on the shortest route across the river, from Harfrey's Roundabout, represents a balance between these considerations.
- 5.2.8** Three options, two of which were for a bascule bridge and one a tunnel, were shortlisted for further environmental assessment, the findings of which are summarised in **paragraphs 3.3.12 to 3.3.52** in **Chapter 3** of the ES (DCO Document **6.1**).
- 5.2.9** An economic assessment of the short-listed options was undertaken using Transport User Benefits Appraisal (TUBA) software. The economic benefits of a tunnel were found to be nearly as high as those of the bridge options, but the construction costs would be much higher, producing a low BCR, whereas both bridge options had a BCR of more than 4.0 at this stage of the assessment. DfT guidance<sup>50</sup> states that *"A BCR of greater than one indicates that the benefits outweigh the costs. For example, a BCR of 2.0 suggests that for each pound of Broad Transport Budget expenditure, two pounds of benefit to public value are expected to be generated"*. On this basis the bridges were considered to offer very high value for money (VfM).
- 5.2.10** Public consultation in August 2009 revealed that 92% of people supported provision of a new river crossing. Key stakeholders were also consulted. Highways Agency (now Highways England) indicated a preference for a bridge option, as did 1st East, the Great Yarmouth Waterfront Regeneration Company, and GYBC. Details of the 2009 consultation are set out in the OAR.
- 5.2.11** In December 2009, NCC's Cabinet<sup>51</sup> considered the findings of the technical studies and the public and stakeholder consultation. The Cabinet's conclusion was that:
- *"Evidence from all of the technical work to date and the results from the public consultation indicate that the bridge option with a dual carriageway link*



*utilising a 50m span bascule bridge over the river is the best option for a preferred route”.*

- *“The decision on whether the bridge scheme has a roundabout or a T-junction on Southtown Road can be decided during the detailed design.”*

**5.2.12** The Cabinet decided to adopt a preferred corridor for the bridge option – between Harfrey’s Roundabout and South Denes Road, as illustrated in **Plate 5-2** below. They also authorised the purchase of properties subject to blight notices and agreed to investigate funding options for the scheme<sup>52</sup>.



*Plate 5-2 - Preferred route corridor (from OAR, 2016)*

### **5.3 Preferred Option Design Alternatives**

- 5.3.1** Focusing on the preferred scheme location, a further long-list of options was produced based on different combinations of criteria including the location, form and geometry of the western and eastern tie-ins to the local road network, the bridge height and the carriageway standard.
- 5.3.2** There were considered to be three locations where new bridge infrastructure could connect to the existing highway network on the western side of the river. The connection could either be made at Harfrey’s Roundabout, Suffolk Road or Southtown Road.
- 5.3.3** An initial sift of the potential options was carried out. By removing those that did not make significant contributions to the objectives as defined at the time, did not adequately address the transport or regeneration needs, as set out in **Section 4** of this document, or were not deliverable or feasible, the initial list of 40 options was reduced to nine. All of the short-listed options involved a signalised T-junction with South Denes Road.

5.3.4 Following further sifting using the DfT's Early Assessment and Sifting Tool (EAST) and an operational assessment using the Mott MacDonald 2008 SATURN model, the nine options were narrowed down further to three. The three remaining options were tested in more detail using the PARAMICS microsimulation models developed in 2016-17 for the OBC. The models are described in the PARAMICS Local Model Validation and Forecasting Reports which is referenced in the TA (DCO Document 7.2).

5.3.5 The three options selected for further testing were:

- Option 32 - Suffolk Road tie-in to the west (four lane high level bridge, roundabout as west tie in and traffic signals to the east at South Denes Road);
- Option 33 - Suffolk Road tie-in to the west (three lane high level bridge, roundabout as west tie in and traffic signals to the east at South Denes Road); and
- Option 37 - Southtown Road tie in to the west (two lane low level bridge with traffic signal junctions to the west and the east at South Denes Road).

5.3.6 The operational assessments, described in the FOAR (2017), showed that Option 32 was forecast to perform better than the other options. Specifically, Option 32 provided the best forecast journey time and distance savings and shorter predicted queues than the other options. **Tables 7-9, 7-10 and 7-11** in the TA support this assessment in demonstrating significant journey time savings on various routes from the west of the River Yare onto the South Denes peninsula. **Section 5.5** further elaborates on time savings on specific routes and the other means by which the preferred option addresses the transport need, whilst **Section 5.6** sets out the resulting benefits in terms of regeneration.

5.3.7 Separately, the road safety audits undertaken as part of the design investigations, indicated that Option 33, the 3 lane bridge, would perform least well in safety terms, due to its operational complexity. Option 37 would offer a less resilient solution and would have a bigger impact on residential properties on Southtown Road.

5.3.8 In summary, the options assessment process undertaken to support the OBC identified Option 32 as the preferred option to be taken forward for more detailed design and assessment. On the basis of the option selected, the OBC concluded that *"the Great Yarmouth Third River Crossing will have a significant and beneficial impact on traffic in the town, and this will give rise to a range of benefits, helping to deliver the scheme's objectives"*.

## 5.4 Developing the Scheme

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5.4.1 The non-statutory Stage 1 consultation ran between November 2016 and January 2017, with the aim of to understanding people's views on congestion

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in Great Yarmouth, sharing the emerging proposals for the Scheme and understanding the level of support for these. A Stage 2 non-statutory public consultation phase ran between September 2017 and October 2017 with the intention of understanding views on the development work undertaken up to that time. Stage 2 consultation responses identified a number of suggested improvements, which are summarised in the Consultation Report (DCO Document **5.1**), together with regard that the Applicant has had to the comments.

**5.4.2** Statutory consultation ran from August 2018 with an initial response deadline of October 2018 and was subsequently extended to December 2018 to take account of the fact that a number of figures had been omitted from the Preliminary Environmental Information Report (PEIR). As a result of feedback from the pre-application consultation, a number of refinements to the Scheme design have been made, as set out in **Table 10-15** of the Consultation Report, and included amendments to red line boundary (Order Limits), the removal of the large vessel waiting facility, changes to the Scheme to minimise the impact on the MIND Centre and Grounds, refinements to the final bridge form including control tower location and the provision of an underpass on the east side of the river.

**5.4.3** A further consultation was carried out in February and March 2019, to take account of design changes implemented since the original statutory consultation. **Table 11-3** of the Consultation Report details the feedback received and the regard given by the Applicant.

## **5.5 How the Scheme Addresses the Transport Need Case**

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**5.5.1** The transport need case is set out in **Section 4.3** of this document and demonstrates that there are nationally and locally significant issues that require action. The following sections set out how the Scheme will address the specific needs identified. Section headings used below are consistent with those provided in **Section 4.3**.

### **Inadequate Connectivity between the SRN and the Port**

**5.5.2** The Transport Assessment provides a comprehensive description and analysis of the impacts of the Scheme for users.

**5.5.3** The impact on motorised users has been quantified based on detailed traffic modelling which has been developed in line with WebTAG guidance, utilising both a strategic SATURN (Simulation and Assignment of Traffic in Urban Road Networks) model and a Paramics microsimulation model. The traffic modelling undertaken enables forecasts to be made of the changes in journey times and distance, delays and queuing on key links across the town and along the SRN as a result of the Scheme. The TA in **Section 6** sets out how each model has been used in assessing the impacts of the Scheme.

**5.5.4** As set out in **Section 4.3** of this document, a key route to the peninsula and Port from the SRN is from Gapton Hall roundabout via Haven Bridge and, as a result, this crossing has become subject to severe congestion. On this basis, the TA considers the degree of redistribution of traffic from Haven Bridge to the new crossing as a measure of success in addressing the transport needs case.

*Table 5-1 - Forecast traffic changes on all bridges (PM peak hour) (Taken from TA)*

Traffic Flow PM (2 Way veh.)	2018 Base	2023 DM No Scheme	2023 DS With Scheme	Difference % DM / DS
A47 Breydon Bridge	2,711	2,890	2,908	+0.6%
A1243 Haven Bridge	2,300	2,174	1,286	-40.9%
Third River Crossing	-	-	1,577	-

**5.5.5** **Table 5-1**, which is taken from the TA, compares traffic flows during the PM peak on all crossings and shows a 41% reduction in traffic on Haven Bridge in 2023 with the Scheme in place, whilst there is negligible change on Breydon Bridge. The TA attributes this as being due to traffic from the peninsula using the new crossing and continuing along the A47 over the Breydon Bridge, rather than passing through the town centre and as such is considered to represent a benefit to the town centre. Taking the PM peak hour as an example, the impact that this redistribution in flows has upon journey times from the SRN to the Port is forecast in **Table 5-2**.

*Table 5-2 - Forecast journey time savings 2023 PM Peak (Taken from TA)*

Between	And	Base 2018 (minutes )	DM 2023 No Scheme (minutes )	DS 2023 with Scheme (minutes )	Time saving DM – DS (minutes)
A47 Acle New Road	Outer Harbour	8.9	10.1	8.8	1.3
A47 Acle New Road	Pleasure Beach	7.6	8.6	7.1	1.5
A47 Acle New Road	A47 (south)	8.2	7.3	6.3	1.0
A47 (south)	Outer Harbour	9.5	10.8	4.8	6.1
A47 (south)	Pleasure Beach	9.0	9.7	5.7	4.0

Gorleston (Town Centre)	Great Yarmouth (Town Centre)	9.8	9.3	7.8	1.5
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- 5.5.6** Journey time improvements with the Scheme in place are particularly marked between the A47 (south) and Outer Harbour with a 6.1 minute saving (56%) predicted in 2023 during the PM peak. Improvements for the same period are also identified elsewhere with journeys between the A47 Acle New Road and Outer Harbour expected to reduce from 10.1 minutes to 8.8 minutes with the Scheme in place.
- 5.5.7** The TA also considers the impact of the Scheme on the performance of key junctions on the SRN and forecasts some marked improvements. For example, at Gapton Hall Roundabout, MMQ lengths on the A47 (south) are expected to reduce by over 360m in 2023 in the PM peak as a result of the Scheme, as shown in **Table 7-35** of the TA.
- 5.5.8** Harfrey's Roundabout is the main point at which the Scheme connects, via William Adams Way to the A47 and, as a result, an increase in flows at the roundabout is predicted, with more traffic turning to use William Adams Way and the new bridge and less using the A47(N). This is expected to lead to increased queueing, especially on the A47(S) in the AM Peak, as shown in **Table 7-36** of the TA. The impact at Harfrey's Roundabout is not unexpected, given the Scheme is designed to attract increased traffic to this part of the road network, and introduces a new arm to the roundabout. In addition, in terms of the functioning of the SRN, the detrimental impacts are more than offset by the significant improvements seen at Gapton Hall Roundabout, as explained in the TA. Monitoring of changes in traffic patterns, accidents and performance of key junctions across the network as a consequence of the Scheme, is proposed in **Section 8.3.1** of the Transport Assessment in order to allow the Applicant, in their role as Highway Authority, to make adjustments where necessary, for example to traffic signal timings.
- 5.5.9** According to the TA (**Section 7.11**), in relation to abnormal loads, for journeys from the A47 to the Outer Harbour and berths on the east of the river, vehicles are typically routed via Vauxhall roundabout, Fullers Hill, North Quay and Hall Plain (therefore avoiding Haven Bridge) then onto South Quay and South Denes Road. For berths on the west of the river, the typical route from the A47 is via Gapton Hall, Pasteur Road/Southtown Road, or via Harfrey's roundabout and William Adams Way/Southtown, depending on the relevant berth number. The Scheme would provide an alternative, and in many cases shorter, route for these trips, which, given the likely need for abnormal load deliveries comprising wind turbine components destined for the Outer Harbour, is of benefit.

**5.5.10 Section 4.3** of this document describes the resilience issues facing the existing highway network as a result of the age, condition and lack of contingency attributable to the existing crossings. Access to the Port from the SRN can only be achieved using unsuitable routes via the town centre. As a result, the operations of the Port's occupiers and their supply chains are vulnerable to issues on the local highway network caused by increased demand and/or further unforeseen closures of the existing crossings. The resilience provided by a third crossing would benefit the Port and its users greatly.

**5.5.11** Notwithstanding the increased flows and queuing at Harfrey's Roundabout, the general effect of the Scheme is to redistribute traffic between the SRN and various areas of Great Yarmouth, thus capitalising on significant existing investment to create a direct access to the Port allowing it to fulfil its role, both now and in the future, as a strategic hub for the offshore wind and energy industries.

#### Congestion and Resilience Issues on The Local Highway Network

**5.5.12** The local highway network will also benefit from reduced congestion, improved journey times and improved journey time reliability as a result of traffic directly accessing the Port and adjoining employment areas from the SRN. **Table 5-3** shows 2 way vehicular flow on key links within the wider area, for the 2018 base model and 2023 DM and DS scenarios during the PM peak.

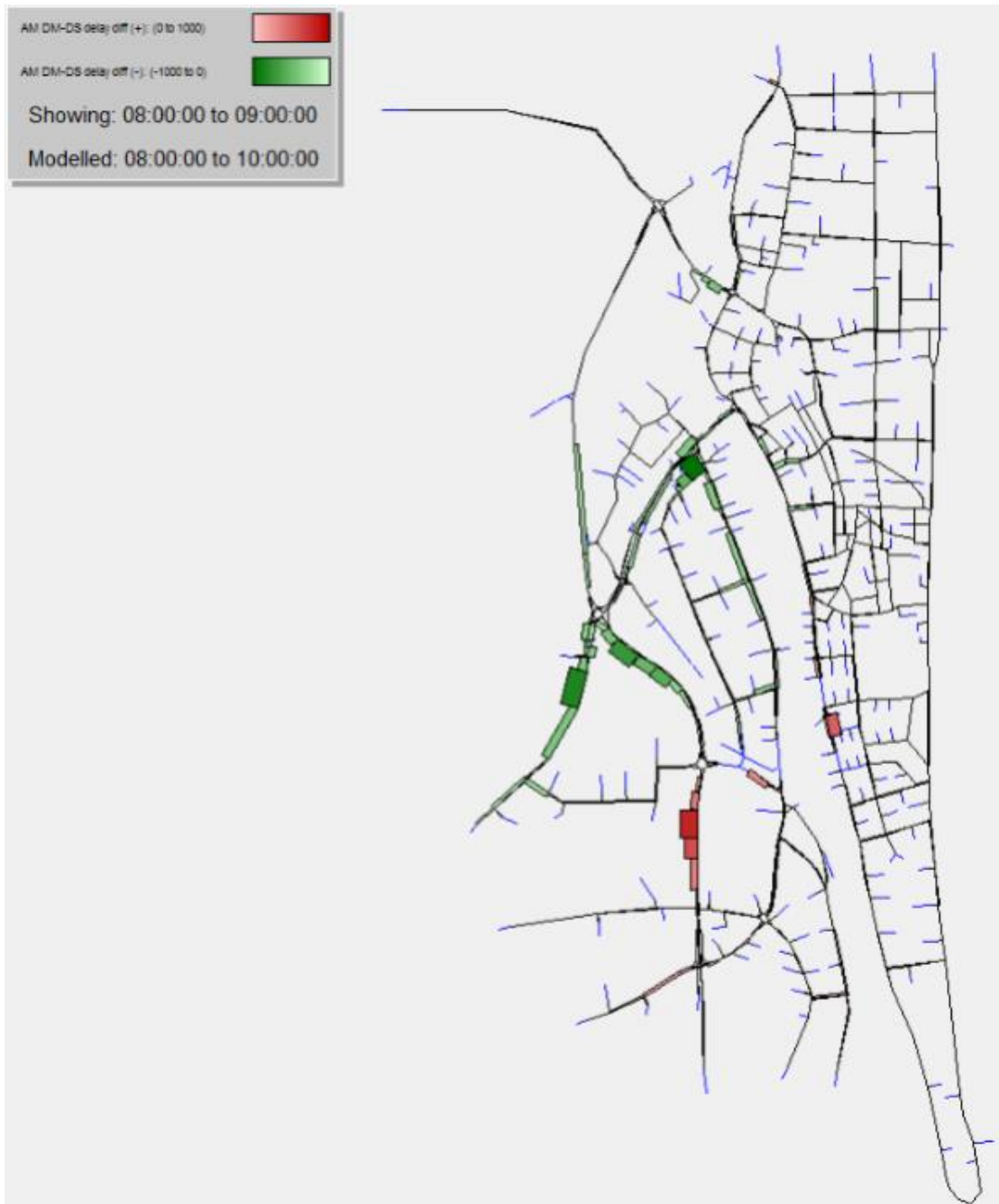
*Table 5-3 - Impact of the Scheme on link flows (PM peak) (Taken from TA)*

Link	2018 Base	2023 DM (veh)	2023 DS (veh)	Change DS-DM	Change %
Breydon Bridge	2,711	2,890	2,908	18	1%
Haven Bridge	2,300	2,174	1,286	-889	-41%
North Quay	1,158	1,060	1,135	75	7%
South Quay	2,409	2,286	1,458	-828	-36%
Southgates Road	817	817	994	178	22%
South Denes Road	349	357	416	59	16%
Marine Parade	442	585	447	-138	-24%
South Beach Parade	258	434	387	-48	-11%
Admiralty Road	182	188	182	-7	-4%
Sutton Road	49	57	135	78	136%

Link	2018 Base	2023 DM (veh)	2023 DS (veh)	Change DS-DM	Change %
Swanston's Road	49	56	94	38	68%
Main Cross Road	141	163	256	93	57%
Salmon Road	70	101	143	42	41%
William Adams Way	728	757	1,000	244	32%
Beccles Road	1,292	1,342	1,446	104	8%
Southtown Road	753	895	515	-379	-42%
A47 N of Harfrey's RB	2,900	2,853	2,876	23	1%
A47 S of Harfrey's RB	3,221	3,186	3,620	434	14%
Fuller's Hill	866	932	842	-90	-10%
Yarmouth Way	758	672	608	-64	-10%
Suffolk Road	388	315	252	-63	-20%
Pasteur Road	1,644	1,171	885	-286	-24%
Lawn Avenue	1,668	1,593	1,739	146	9%

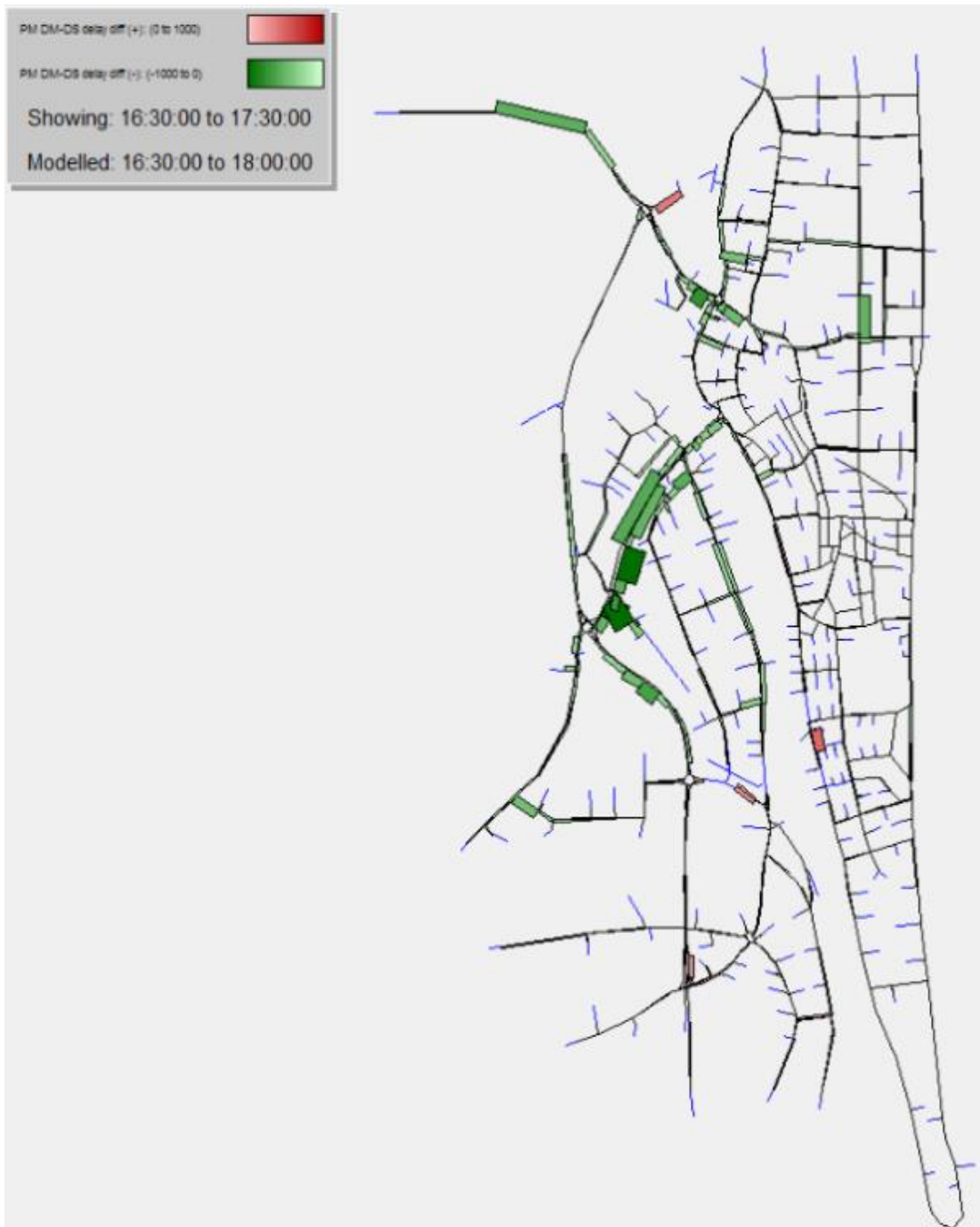
**5.5.13** As described earlier, one of the most dramatic reductions is seen on Haven Bridge, resulting in a significant immediate benefit for the town. Of the three bridges, Haven Bridge will accommodate the lowest traffic volumes by a significant margin. In addition, a significant decrease of 36% in traffic on South Quay is expected whilst marked reductions in traffic are observed elsewhere on Southtown Road, Pasteur Road, Marine Parade, Fullers Hill, Yarmouth Way and Suffolk Road.

**5.5.14** As a result of the reduced flows, the situation in terms of congestion and resulting delays on links to the north of the Scheme would improve. **Plates 5-3** and **5-4**, which are taken from the TA, highlight the links in the modelled network where average journey times are forecast to change because of the Scheme in the AM and PM peak hours in 2023. Links with forecast journey reductions are shown in green, with the size of the reduction indicated by the shade and width of the coloured bands. Journey time increases are shown in red. The improvement is greatest in the PM peak, where forecast improvements in journey time are seen on Fuller's Hill, Acle New Road and North Quay.



*Plate 5-3 Changes in average link time (seconds) due to the Scheme (AM peak) (Taken from TA)*





*Plate 5-4 Changes in average link time due to the Scheme (PM peak) (Taken from TA)*

**5.5.15** The TA also considers the impact of the Scheme at forecast 2038 levels of demand. As described in **Section 4.3**, in the DM scenario, by 2038 there is predicted to be insufficient capacity within the overall network to cope with the higher level of demand. The TA concludes, drawing on an examination of queuing at junctions in 2038 in the DS scenario, that *“overall traffic conditions in 2038 would be significantly better with the Scheme in place as the network*

would be better able to support the forecast demand (as indicated by virtually all modelled trips being completed within the peak periods)". This is in stark contrast to the 2038 DM scenario in which the TA predicts that between 25% and 36% of trips are not able to be assigned because of lack of network capacity.

**5.5.16** Some increases in link flows are predicted as a result of the Scheme, as shown in **Tables 7-13 and 7-14** of the TA. In order to determine whether the forecast traffic increases can be effectively accommodated on each of the links, the TA refers to the capacities for urban roads listed in Table 2 of the Advice Note TA 79/99<sup>53</sup> from the Design Manual for Roads and Bridges (DMRB). **Table 7-22** in the TA shows the category of each of the identified links (listed in TA 79/99) and compares the link capacity with the forecast flow in the busiest direction flow in 2023 (with the Scheme). In every case, the forecast busiest direction flow is within the capacity of that link. Performance at key junctions is also assessed in the TA as this, together with other constraints, can impact the ability of the link to operate to capacity.

**5.5.17** According to **Plates 5-3 and 5-4**, locations where link journey times are forecast to increase, indicating an increase in congestion, are on the roads leading to the Scheme itself. The TA explains this, in **Section 7.7**, as being due to some traffic diverting onto these roads to use the new bridge and notes that overall journey times will still be reduced for diverting traffic, because of the reduced distances travelled, even though some of the links in the journey may be slower. As discussed in **paragraph 7.5.14** of the TA, the links affected are the A47 south of Harfrey's Roundabout, William Adams Way and part of South Denes Road, close to the Scheme. The impacts are most noticeable in the AM peak. For some of the links, such as Admiralty Road, Sutton Road, Main Cross Road and Swanston's Road, high percentage increases are predicted, however, due to the relatively low flows present on the links in the 2018 base model, the actual increase in terms of vehicle numbers is not considered to be significant in traffic terms. Taking Sutton Road as an example, a 198% increase in Link Flows in the AM peak is predicted, however, in real terms this equates to an increase from 35 in the 2023 DM to 105 in the DS.

**5.5.18** The analysis of journey times, changes in link flow and congestion in **Chapter 7** of the TA also indicates that the traffic signal controlled junctions listed below are likely to experience changes in traffic volumes or turning movements as a result of the Scheme (see **paragraph 8.4.1** of the TA):

- Pasteur Road/Bridge Road/Southtown Road
- North Quay/South Quay/Bridge Road
- South Quay/Yarmouth Way
- A47/Acle New Road (Vauxhall RB)

- A47/Pasteur Road (Gapton)
- A47/A143 Beccles Road
- William Adams Way/Southtown Road junction

**5.5.19** The TA recommends that the Applicant review and if necessary update timings at the above junctions as part of their “business as usual” management of the local highway network. Signal staging and timing arrangements will be optimised accordingly using the professional judgement of the Norfolk County Council Urban Traffic Control team, in liaison with Highways England as required

**5.5.20** In addition, details of the VMS locations, which are included in the Scheme as embedded mitigation, are set out in **Section 8.2** of the TA. The signs will indicate to drivers that the Third River Crossing is closed or about to close and will suggest use of an alternative route.

**5.5.21** Finally, as stated in **Section 8.5** of the TA, the Applicant will continue to liaise closely with Highways England, particularly regarding the Scheme’s relationship with the proposed A47 improvements to promote optimum benefits in Great Yarmouth.

**5.5.22** Overall, the TA concludes that there will be average journey time savings for **all users** in the network of over a minute in the PM peak, with through trips on the A47 benefitting from savings of a minute on the route from the south of Harfrey’s roundabout to the Acle Straight. Similarly, trips between the A47 south and the Pleasure Beach and Outer Harbour are forecast to reduce by 4 minutes and 6.1 minutes respectively (see **paragraph 7.7.33** of the TA). In addition the resilience of the highway network as a whole would be significantly improved, as endorsed in **Section 7.13** of the TA. The Scheme would also generate considerable transport economic benefits and presents opportunities for the regeneration of the town centre, which are considered further in **Section 5.6**.

### **Local Connectivity and Severance**

**5.5.23** The Scheme would provide a direct, safe and secure route from the west of the river to the southern part of the peninsula, thus reducing community severance in the town. The new crossing will integrate a greater proportion of the community with employment areas and commercial services within the town, as well as improving accessibility to the Port, South Denes EZ Site and Great Yarmouth Energy Park. The Scheme would also improve connectivity between the South Denes EZ Site and Beacon Park EZ Site which has benefits for the Space to Innovate EZ as a whole, as considered in **Section 5.6**.

**5.5.24** The effect of the Scheme in improving connectivity between the east and west of the town is apparent when comparing new journey distances against

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existing routes used to highlight severance in **Section 4.3**. Vehicle journey times assessed in the TA between the east and west of the river would reduce significantly as a result of the Scheme. For example, journeys between the A47 south (location defined in **Plate 4-10** of the TA) to the Pleasure Beach in the PM peak would reduce from 9.7 minutes to 5.7 minutes, as shown in **Table 5-2** of this document.

**5.5.25** NMUs will also benefit significantly from the improved connectivity introduced by the Scheme. A journey on foot for a resident of Peggotty Road on the South Denes peninsula to employment opportunities at Harfrey's Industrial Estate would reduce from approximately 4.3 km by car or 4.2 km on foot to approximately 1.3 km with the Scheme in place. At a walking speed of 3 miles per hour (MPH), this would reduce the journey time on foot from approximately 52 minutes to 16 minutes. In terms of access to community and educational facilities, a journey between Peggotty Road and East Coast College to the east of the river, would reduce by a third from approximately 3 km (37 minutes at 3 MPH) to approximately 2 km (24 minutes at 3 MPH) as a result of the Scheme. During a survey conducted by the Applicant in 2017, the Principal of East Coast College stated his support for the Scheme.

*“The third river crossing will be of huge economic benefit to the town and harbour, serving the growing offshore businesses, tourism and energy sectors. As a college we are closely aligned to employers’ training needs and regional priorities, and recognise that, in order to achieve growth in key sectors, the region must be supported with the appropriate infrastructure and travel networks. To this end I see the river crossings planned for both Great Yarmouth and Lowestoft as critical developments along with the dualling of the Acle Straight”.*

**5.5.26** An additional benefit provided by the Scheme relates to the improved access arrangements to the Kings Centre. The provision of a more direct access back to the A47, via the new roundabout, for anyone leaving the centre will result in an enhancement in journey times, particularly to locations to the south, benefitting both employees and visitors.

**5.5.27** The impact of the Scheme upon severance is considered in the Social Distribution Impact (SDI) Analysis prepared in support of the Economic Appraisal Report (DCO Document **7.6**) and included as **Appendix E** to it. The report concludes that *“regardless of vehicle flow changes associated with the redistribution of traffic across the highway network, the provision of a new crossing between two previously poorly connected parts of Great Yarmouth will have a significant positive impact on community severance by offering an alternative central crossing, providing access to the town centre and other key amenities and facilities... Although a number of links are expected to see a significant change in traffic flow which will result in both benefits and disbenefits to certain vulnerable groups, the overall DI assessment on*

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*severance is considered to be Slight Beneficial due to the positive impact outweighing the negative impact”.*

5.5.28 In their response to the formal consultation under Section 42 of the Planning Act, GYBC stresses the importance of the Scheme in reducing severance in the town and highlight the potential benefits offered. *“The Borough Council welcomes the positive economic and social benefits likely to arise as part of the proposal, particularly new opportunities that may emanate from linking communities within South Denes and Southtown Road”.*

#### Difficulties for Public Transport Connections

5.5.29 The TA includes an assessment of average journey time savings in 2023, based on a comparison between the DM and DS scenarios. The model suggests a general improvement in bus journey times as a result of the Scheme with an average saving of 12 seconds (1%) in the AM peak and 42 seconds (3%) in the PM peak (see **Section 7.10** of the TA).

5.5.30 In addition to bus journey time savings, the Scheme presents an opportunity for new, more direct bus routes into the South Denes area to be introduced and initial consultation has been undertaken with representatives from First Bus regarding this. The TA confirms that *“Norfolk County Council will continue to liaise with the main operators in order to obtain a formal response and to investigate opportunities to improve the existing bus network by the creation of new or extended services such as circular routes using the Third River Crossing”.*

5.5.31 The Scheme also incorporates significant improvements to the bus infrastructure on the western side of the river, by replacing the existing sub-standard bus stop on Southtown Road with an improved bus stop which can accommodate two buses and provides safe and step free access which ties into the revised pedestrian and cycle routes in the locality.

#### Walking and Cycling Accessibility Barriers

5.5.32 The Scheme provides a quicker route between the west and east of the town for non-motorised users (NMUs). Furthermore, the Scheme has been designed with due consideration to the safety and convenience of routes for pedestrians and cyclists.

5.5.33 The eastern junction incorporates controlled crossings and South Denes Road would be reconfigured to include pedestrian refuge islands to allow staggered crossing movement.

5.5.34 To cater for pedestrian and cycle users at the new roundabout, controlled pedestrian and cycle crossing facilities would be provided across the William Adams Way eastern arm of the roundabout; the arm connecting the double leaf bascule bridge to the roundabout; and across the Suffolk Road arm of the

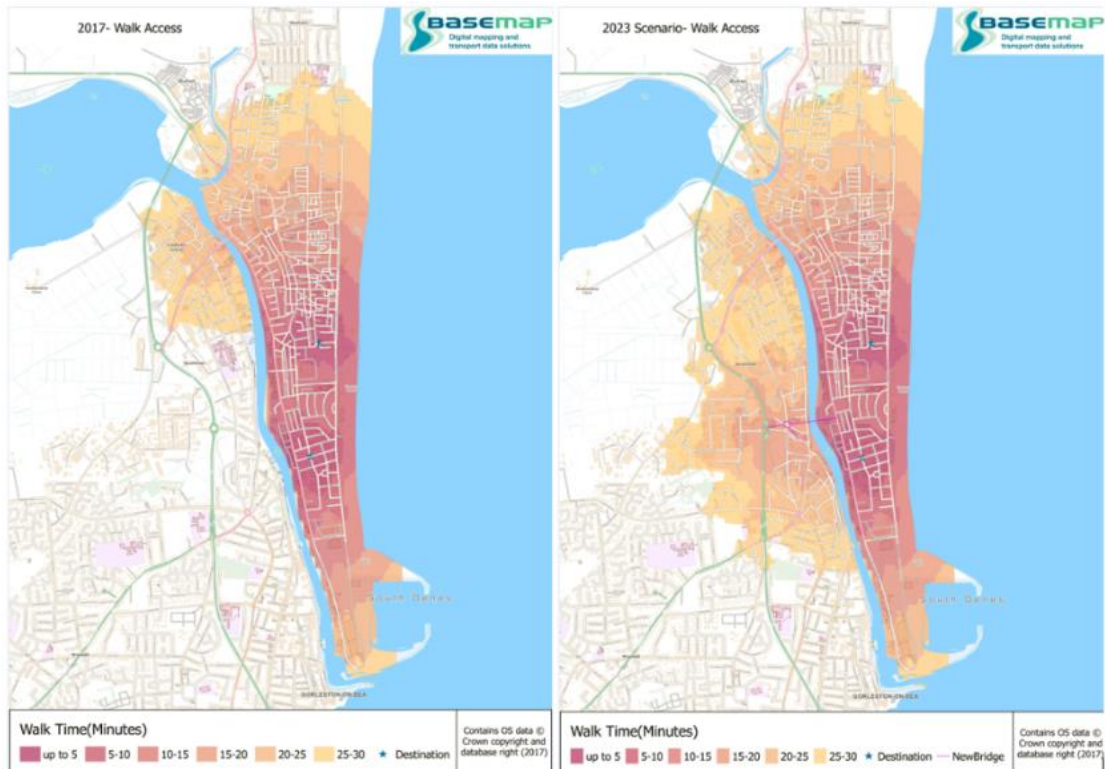
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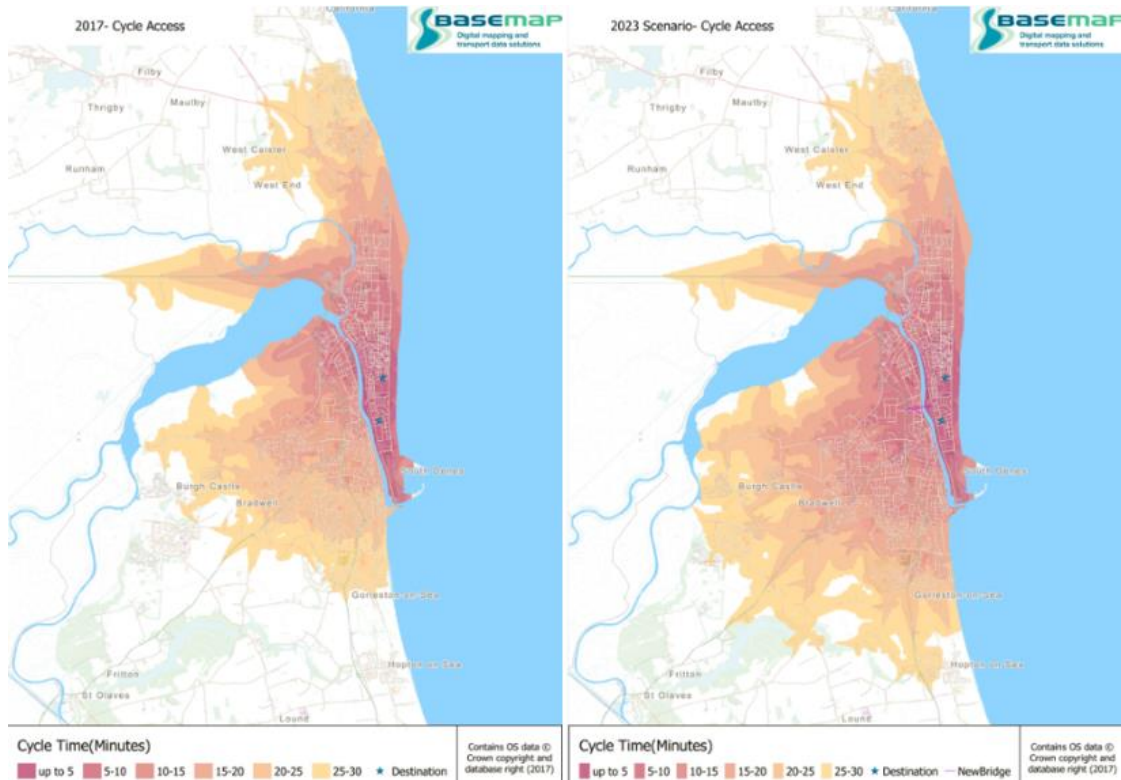
roundabout. These crossings would connect into the existing network of walking and cycling routes on either side of these arms of the roundabout and on the northeast side of Queen Anne's Road, west of the new roundabout. A central median would be provided for a short distance on some arms of the roundabout where required to accommodate the controlled crossing points. A new crossing is also proposed on Southtown Road, in proximity to the relocated bus stop.

**5.5.35** The NMU route on the north-western side of the crossing approach connects Southtown Road users to Suffolk Road and onto the bridge deck to cross to the eastern side. The northern side of the bridge provides pedestrian and cycle crossing facilities to tie into these connections.

**5.5.36 Plates 5-5 and 5-6**, which are taken from the TA, illustrate the significant improvement in accessibility for pedestrians and cyclists as a result of the Scheme.



*Plate 5-5 Accessibility for pedestrians 2023 DM (left), DS (right) (taken from TA)*



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*Plate 5-6 Accessibility for cyclists 2023 DM (left), DS (right) (taken from TA)*

**5.5.37** An active mode appraisal (AMA) of the Scheme has been undertaken, using a DfT approved economic appraisal methodology, in order to calculate the present value of benefits to the Scheme accruing from active mode impacts. The AMA is appended to the EAR (DCO Document **7.6**). This indicates that the Scheme will generate £10.2 million of benefits (2010 prices), relating primarily to journey time savings, but also from an improvement in journey quality, increased physical activity and reduced absenteeism. A breakdown of the benefits is provided in **Table 5.9** of the EAR.

### Personal Injury Accidents

**5.5.38** The EAR (DCO Document **7.6**) summarises the conclusions of an assessment of the safety benefits of the Scheme undertaken using Cost and Benefit to Accidents-Light Touch (COBA-LT) software. Combined links and junctions were assessed and the COBA-LT analysis estimated that, over the 60-year period from 2023, the Scheme would result in a saving of 54 casualties. The economic benefit of these savings is calculated as £0.9m, with accidents making up less than 1% of total Scheme benefits reported in the EAR.

**5.5.39** Accident savings are broken down by links and with savings being largely related to junctions. The TA, in **paragraph 7.12.9**, attributes this as being due to the removal of trips from a number of junctions, resulting in a reduction in collisions, due to the reassignment of trips. Whilst it is acknowledged that the beneficial effects of the Scheme in reducing PIAs is a supporting factor, rather than a primary part of the transport need case, the success of the Scheme in redistributing traffic from the town centre, and the resulting benefits this brings in terms of reduced PIAs, is supported by this analysis.

**5.5.40** The Scheme has been designed to standards set out in DMRB and has been subject to a Stage 1 Road Safety Audit (DCO Document **7.4C**) to ensure the potential road safety implications are adequately considered and that necessary steps taken in design to address any concerns. Stage 2 and 3 Audits will be undertaken upon completion of detailed design and construction respectively.

## 5.6 How the Scheme Addresses the Regeneration Need Case

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**5.6.1** Access to the Port, South Denes EZ and other employment areas within the South Denes peninsula would be greatly improved by the Scheme, given it will reduce congestion as well as improve journey times and journey time reliability overall across the network. There is an opportunity for the concentration of economic activity on the peninsula to be improved as a result of the Scheme as accessibility between businesses and workers is improved by reduced journey times, which generates productivity benefits through



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'closer' proximity (agglomeration benefits). The reduction in transport costs for business and freight accessing the employment areas within the peninsula also presents an opportunity for businesses to profitably increase their output (for goods and services).

- 5.6.2** In addition, improving the efficiency of the transport network (which reduces transport costs) can affect the decisions of business about where to locate. Lower transport costs can also incentivise individuals to work and thus the amount of labour supplied in the economy, which creates opportunities for additional jobs within the area.
- 5.6.3** The regeneration need set out in **Section 4.4** of this document refers to the Regeneration and Wider Impacts Report. This assessment of benefits and impacts carried out in 2017 was largely qualitative but quantification is also outlined, with the focus of the assessment being on the impacts on employment land and existing sites and premises, as well as on town centre regeneration and the visitor economy.
- 5.6.4** Using assumptions rooted in guidance from the Homes and Communities Agency's (HCA) Employment Densities Guide (2015) and assumptions provided by GYBC, the Regeneration and Wider Impacts Report estimates the potential for employment and GVA growth in the Borough based on the development and occupation of available employment sites. The sites are consistent with those assessed in the TA. Following the application of a displacement factor of 35%, to allow for an assumed proportion of future occupiers relocating from existing sites within the Borough, the Regeneration and Wider Impacts Report concludes that if these sites were developed and occupied by 2030, the net employment impact would be in the order of 3,300 full-time equivalent (FTE) jobs, with a total GVA contribution of around £237m.
- 5.6.5** The Regeneration and Wider Impacts Report acknowledges that the Scheme would not solve all of Great Yarmouth's congestion issues and does not claim that the development of available employment sites is unachievable without the Scheme in place. Rather the report suggests that, based on the perception of the town as unattractive to prospective businesses due to inadequate transport links, there is potential for some modest employment and GVA uplift effects linked to the Scheme. On this basis the Report considers that around 90% of the benefits would be attributable to other factors and thus the impacts attributable to the Scheme would be of the order of 330 FTE jobs and £24m of GVA by 2030.
- 5.6.6** Although useful in giving context to the potential benefits of the Scheme in regeneration terms, the Regeneration and Wider Impacts Report is largely qualitative and the conclusions reached are based on assumptions. On this basis, as stated in **paragraph 4.4.15** of the EAR (DCO Document **7.6**) a conservative approach has been taken whereby monetised regeneration

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impacts are excluded from the calculation of the adjusted Benefit Cost Ratio for the Scheme.

**The role of Great Yarmouth as a 'hub' for the offshore energy industry and other NSIPs and the current difficulties in delivering that role**

- 5.6.7** As set out in **Section 4.2**, there is a clear recognition in the NPS NN of a linkage and dependency between improved transport infrastructure and successful economic growth, which is reiterated by a range of other more recent Government strategy documents such as the Industrial Strategy, Transport Strategy, the NIDP and the Port Connectivity Study. Reduced congestion, improved journey time savings and journey time reliability will support Great Yarmouth's growing role in the renewable sectors, particularly its role in relation to other proposed NSIPs. In addition, following an expression of interest in the Heathrow Expansion bid process, the Port is one of the 65 shortlisted logistic hub sites<sup>54</sup>. The Scheme will support the economic growth ambitions of Great Yarmouth locally and in the wider sub-region, particularly in the energy sector by improving productivity through the agglomeration and the reduction in transport costs which can increase output between businesses within the energy sector and induce additional labour into the market.
- 5.6.8** In order to ensure the wider impacts and benefits potentially attributable to the Scheme are defined and included in the adjusted BCR, the EAR (DCO Document **7.6**) draws on the conclusions of the Wider Impacts in Transport Appraisal (WITA) Technical Note (**Appendix F** of the EAR). Applying the methodology set out in WebTAG A2.1, the WITA Technical Note uses WSPs Wider Impacts in Transport Appraisal (WITA) emulation tool, to calculate benefits associated with agglomeration, output change in imperfectly competitive markets and tax revenues from both labour supply impacts and those arising from moves to more or less productive jobs. The WITA Technical Note calculates the total wider impact benefits for the Scheme at £58.7m with agglomeration benefits accounting for £53.1m of this total, which is equivalent to 25% of TUBA user benefits (see **paragraph 5.5.2** of the EAR).
- 5.6.9** Added to the fact that businesses will benefit from reduced costs and better access to markets as a result of reduced congestion, faster journeys and improved journey time reliability, as described in **Section 7** of the TA (DCO Document **7.2**) and summarised in **Section 5.5** of this document, commuters will similarly benefit from shorter, more reliable, journeys to work. These benefits, which are included in the BCR calculations, will support local development and the regeneration of Great Yarmouth's economy.
- 5.6.10** The Economic Appraisal Report (DCO Document **7.6**) quantifies the total benefits accruing from the Scheme as £297,294,000 at adjusted present value of benefits (PVB), as set out in **Table 5-4**.

Table 5-4 - Calculation of adjusted BCR, taken from EAR (all values in £000 discounted to 2010 prices)

Adjusted BCR	2010 prices £000
Initial Present Value of Benefits (PVB)	227,255
Wider Impacts - Reliability	11,312
Wider Impacts – Economic	58,727
Adjusted Present Value of Benefits (PVB)	297,294
Present Value of Costs (PVC)	111,112
Net Present Value (NPV)	186,182
Adjusted BCR	2.7

### Enabling Wider Sub-National Growth

- 5.6.11 Reduced congestion, journey time savings and improved journey time reliability will facilitate the delivery of planned growth, at both the local and sub-national level.
- 5.6.12 The EAR highlights that, in terms of the geographical distribution of benefits associated with time savings, journeys from the south of Great Yarmouth to the South Denes peninsula would benefit most (see **Section 5.2** of the EAR). Whilst the offshore energy industry will not be the sole recipient of such benefits, clearly journeys between the SRN and Outer Harbour would reap the productivity benefits thus enhancing collaboration in the sub-region in line with its CORE status. Journey times between the Port, including adjacent employment areas, and Lowestoft would also benefit thus stimulating synergies between the two Ports as well as the industries and supply chains they serve.
- 5.6.13 In their response to the statutory consultation for the Scheme the NALEP communicate their support for the Scheme as it will help “*deliver the Norfolk and Suffolk Economic Strategy, which sets out ambitious targets to grow our economy by £17.5 billion, creating 88,000 new jobs and 140,000 new homes and increasing GVA by £39 per hour by 2036. The Third River Crossing is also identified as a priority in our recently adopted Integrated Transport Strategy. The scheme will help to deliver our strategic ambitions by encouraging further investment in the Norfolk and Suffolk Energy Coast, a global centre of oil, gas, nuclear and renewable energy generation and infrastructure and an identified Priority Place in the Norfolk and Suffolk Economic Strategy*”

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5.6.14 Furthermore, in response to a survey undertaken by the Applicant in 2017<sup>37</sup>, the Port Director of Peel Ports Great Yarmouth acknowledged the benefits the Scheme would bring to the region's economy.

*“The port continues to attract new and diverse business interests which serves to reinforce the assets available and the potential on offer in the region. Investing in improved transport infrastructure is an essential enabler to sustainable future growth benefitting both communities and businesses”.*

#### The Enterprise Zone and the challenges to its fulfilment

5.6.15 Reduced congestion, improved journey time savings and journey time reliability would also enable existing and future businesses located in the Enterprise Zone sites to run more effectively and efficiently. **Section 4.4** sets out how congestion is a deterrent to future investment and depresses productivity in existing business. These issues hamper collaboration and limit the potential collective success of the EZ in line with the NALEP's aspirations.

5.6.16 As set out in **Section 5.5**, the Scheme would result in an overall reduction in congestion and delays for the majority of businesses in the town, particularly those operating on the South Denes peninsula. Moreover, journey times between the A47 (south), which is a point used in the TA for modelling purposes approximately 2 miles north of Beacon Park, and the Outer Harbour, would reduce from 10.8 minutes in a 2023 in a DM scenario to 4.8 minutes with the Scheme in place (**Table 5-2**). This suggests there would also be significant time savings for journeys between the two Great Yarmouth EZ sites.

5.6.17 The improved connectivity between the Great Yarmouth Enterprise Zone Sites would allow greater local collaboration between off-shore energy related businesses, bringing potential for greater synergy between the two sites.

5.6.18 The increased connectivity introduced by the Scheme, as described in **Section 5.5**, would also allow greater mobility for prospective workers seeking employment and thus provide greater access to a sustainable local labour force for growing businesses, which is reflective of the aspirations of GYBC. The magnitude of this benefit is augmented when the level of deprivation currently evident in the town, as described in **Section 3.7**, is taken into account.

#### Regeneration of Great Yarmouth Town Centre and Seafront

5.6.19 **Section 4.4** of this document highlights that Great Yarmouth's town centre has experienced a decline in the past 5 – 10 years with the popularity of accessible out-of-town shopping contributing to the decline of the town centre. The introduction of a third river crossing will reduce town centre congestion, as described in **Section 5.5**, thus improving access for shoppers and visitors

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and supporting the regeneration of retail, leisure and commercial uses within the town centre.

**5.6.20** The GY Regeneration Framework concludes that *“in the medium term no single investment is likely to do more to boost the regeneration of the town centre than the proposed Great Yarmouth Third River Crossing”* as it has *“the potential to significantly relieve the town centre of Port-related traffic”*. The challenge for the town centre will then be to take the opportunity to reallocate road space and invest in the public realm. This has the potential to unlock the value of what were historically the town’s most prosperous areas with its finest buildings, along the riverside from Fullers Hill to Hall Quay and South Quay.

**5.6.21** **Section 4.3** of this document highlights the issues currently experienced on routes leading into the town centre as a result of congestion, with **Plate 4-2** highlighting hotspots on Haven Bridge, South Quay and Fullers Hill. For the PM Peak, **Table 5-3** predicts a reduction in two-way flows on Haven Bridge from 2,300 in the 2023 DM scenario to 1,286 with the Scheme in place. It also forecasts reductions on South Quay from 2,409 to 1,458 and on Pasteur Road from 1,644 to 885. **Plates 5-3** and **5-4** further illustrate the expected reduction in delays on these links. This data demonstrates the success of the Scheme in re-routing traffic bound for the south of the peninsula away from key links leading into the town thus creating capacity to accommodate traffic destined for the town centre and seafront.

**5.6.22** The additional capacity created on Pasteur Road, Haven Bridge and Southtown Road, which sees a 42% reduction in the forecast 2023 DM scenario of 753 to 515 two-way flows during the PM peak, is also of benefit to GYBC’s development aspirations for the Great Yarmouth Waterfront area. The additional capacity provided creates better conditions for both new development and the redevelopment of existing assets within the strategic site, particularly to the west of the river, in accordance with the Policy CS17 (see **Section 8** of this document).

**5.6.23** In recent years many historic buildings associated with Hall Quay have been left vacant. One of the six key objectives of the Great Yarmouth Regeneration Framework and Masterplan is that the potential for Hall Quay be unlocked, and that *‘By 2025, the Council has adopted guidance to ensure existing buildings are conserved and developed appropriately. With the 3rd river crossing near completion, there is significant interest in refurbishment and new development’*. The reductions in traffic, including HGVs, using the Haven Bridge, Hall Quay and South Quay, will support the regeneration of these areas and improve the local economy in line with the aspirations of the Great Yarmouth Regeneration Framework and Masterplan.

**5.6.24** As set out in **Section 4.4**, the tourism sector in Great Yarmouth is a vital contributor to town’s economy. Recent investment in the town’s tourism sector, notably the Edge casino, represents a commitment by developers to

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further enhance the offering in an attempt to attract greater numbers of day and staying visitors. However, congestion on both the SRN and on the town centre's roads leading to the Seafront, which is a particular problem during peak holiday periods, is a constraint to sustainable growth. As discussed in **Section 5.5**, the Scheme would successfully redistribute traffic bound for South Denes from Haven Bridge to the new crossing, which has a beneficial impact in reducing journey times on key routes within the town, as shown in **Table 5-3**. Journeys to the Pleasure Beach from both the A47 Acle New Road and A47 (south) are included. For example, as shown in **Table 5-2**, based on a comparison of the 2023 DM and DS scenarios in the PM peak, savings of 1.5 minutes on journeys between the A47 Acle New Road and Pleasure Beach and 4 minutes between the A47 and Pleasure Beach are predicted.

**5.6.25** The journey time savings represent a significant benefit to the town's tourism and leisure industry and can only be of benefit in enhancing the attractiveness of Great Yarmouth as a visitor destination. This conclusion is supported by the comments received from Norfolk Chamber of Commerce during a survey conducted by the Applicant in 2017.

*“A third river crossing would provide much needed connections between the strategic road network and the fast growing energy-related Enterprise Zone. It would support tourism, worth £591m per annum to Great Yarmouth, and help create job opportunities for the local workforce - all of which will save businesses time and money, whilst allowing them to increase economic growth in our region”.*

**5.6.26** Although respondents are not named due to General Data Protection Requirements, a number of responses to the statutory consultation also support this conclusion. One such comment states, *“This project is essential to the economic development of Great Yarmouth, Norfolk and East of England as a whole. It is a part of a line of schemes to provide better access for industry and tourism, to which Great Yarmouth has a long history”.*

**5.6.27** In summary, there is an evident connection between the regeneration of Great Yarmouth and the Scheme. The increased capacity would alleviate pressure from the town centre and historic areas, creating opportunity to enhance the public realm and grow the town's economy. This conclusion is shared by Great Yarmouth Borough Council in their response to the formal statutory consultation for the Scheme. *“This vital infrastructure will bring significant benefits to the economy by better connecting the strategic road network to the deep-water outer harbour, river port and energy-related Enterprise Zone. Investment in this infrastructure will ease congestion for residents and businesses alike, create jobs and unlock further business, regeneration and economic growth opportunities”.*

## 6 Decision making under the Planning Act

- 6.1.1 Section 104 requires the SoS to have regard to any "relevant NPS" when determining an application for which development consent applies.
- 6.1.2 A relevant NPS is any NPS which has effect in relation to development of the description to which the application relates. In the context of the Scheme, the relevant NPS is the NPS NN. However, given the close connection of the Scheme with the Port, the Case for the Scheme will also assess the Scheme against relevant provisions of the National Policy Statement for Ports.
- 6.1.3 Section 104 also requires the SoS to have regard to the following matters:
- the appropriate marine policy documents. In the context of the Scheme these documents are the UK MPS and the East Inshore and East Offshore Marine Plans ("the Marine Plan").
  - any local impact report;
  - any matters prescribed in relation to development of the description to which the application relates. Matters are prescribed by the Infrastructure Planning (Decisions) Regulations 2010<sup>55</sup> (listed buildings, conservation areas and scheduled ancient monuments). **Section 7.9** considers the conformance of the Scheme with the matters prescribed in these Regulations; and
  - any matters which the SoS believes to be important and relevant to the decision. This is capable of encompassing a wide range of policies which the Scheme engages; the Case for the Scheme therefore assesses the Scheme against the national and local policies cited in in **Section 8**.
- 6.1.4 In having regard to the above matters, any "relevant NPS" has a special status, in that Section 104(3) requires the application to be decided in accordance the relevant NPS unless one or more specified exceptions apply. Those exceptions are as follows:
- *"(4) This subsection applies if the Secretary of State is satisfied that deciding the application in accordance with any relevant national policy statement would lead to the United Kingdom being in breach of any of its international obligations.*
  - *(5) This subsection applies if the Secretary of State is satisfied that deciding the application in accordance with any relevant national policy statement would lead to the Secretary of State being in breach of any duty imposed on the Secretary of State by or under any enactment.*
  - *(6) This subsection applies if the Secretary of State is satisfied that deciding the application in accordance with any relevant national policy statement*

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would be unlawful by virtue of any enactment.

- (7) This subsection applies if the Secretary of State is satisfied that the adverse impact of the proposed development would outweigh its benefits.
- (8) This subsection applies if the Secretary of State is satisfied that any condition prescribed for deciding an application otherwise than in accordance with a national policy statement is met”.

6.1.5 This section considers whether any of the exceptions listed under Section 104 would apply which may affect determination of the application in accordance with the relevant NPS.

6.1.6 With regard to Section 104(4), deciding the application in accordance with the NPS NN would not lead to the United Kingdom being in breach of any of its international obligations. This is evidenced throughout the application, for example, the Scheme, alone or in combination with any other plan or proposal, would not affect the integrity of any European site, as assessed in the HRA (DCO Document 6.11). In addition, the WFD Assessment provided in **Appendix 11E** to **Chapter 11** of the ES (DCO Document 6.2) assessment has concluded that “*whilst the Scheme may have some localised effects on watercourses directly affected by the Scheme, and the local groundwater aquifer, these are insufficient to lead to any deterioration in status or ability to meet the objectives of the respective waterbodies*”. Furthermore, the **Appendix 11E** advises that “*the Scheme will not prevent the achievement of the wider WFD objectives in the Anglian River Basin District and is not predicted to have an impact on any other waterbody within the Anglian River Basin District or the proposed mitigation measures to achieve Good status*”. **Section 7** of this document and **Appendix A** further demonstrate the Scheme’s conformance with the requirements of the NPS NN.

6.1.7 With regard to Sections 104(5), (6) and (8) of the Act, the Applicant has prepared the application with careful consideration of all applicable legal obligations applying to it and the SoS, and is not aware of any grounds for granting the DCO in accordance with the NPS NN to be considered unlawful, put the SoS in breach of any duty imposed by or under any enactment or breach a condition to the contrary.

6.1.8 The following sections of this document thus accord priority to assessment of the Scheme against the NPS NN.



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## 7 National Policy and Marine Policy

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### 7.1 National Policy Statement for National Networks

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- 7.1.1** The NPS NN outlines the need for the development of NSIPs on the national road and rail networks in England, together with policies to guide their development. The document provides planning guidance for promoters of NSIPs, and also forms the basis for the DCO examination by the Examining Authority and decision by the SoS. In this regard, paragraph 1.2 of the NPS NN states *“The Secretary of State will use this NPS as the primary basis for making decisions on development consent applications for national networks nationally significant infrastructure projects in England”*.
- 7.1.2** Paragraph 1.3 of the NPS NN states that: *“Where a development does not meet the current requirements for a nationally significant infrastructure project set out in the Planning Act (as amended by the Threshold Order), but is considered to be nationally significant, there is a power in the Planning Act for the Secretary of State, on application, to direct that a development should be treated as a nationally significant infrastructure project. In these circumstances any application for development consent would need to be considered in accordance with this NPS. The relevant development plan is also likely to be an important and relevant matter especially in respect of establishing the need for the development”*.
- 7.1.3** The Planning Act and the Highway and Railway (Nationally Significant Infrastructure Project) Order 2013, set the threshold for nationally significant road, rail and strategic freight infrastructure projects. **Section 1.3** of this Case for the Scheme sets out the parameters of the Scheme and identifies where these thresholds are not met. However, the Scheme benefits from the provisions of the Section 35 Direction.
- 7.1.4** The objectives of the NPS NN are aligned with those contained in the NIDP. Paragraph 3.2 of the NIDP states that the SRN is: *“vital to businesses and the successful functioning of the economy”*. Paragraph 5.16 recognises that *“with two thirds of all freight being carried on the Strategic Road Network, effective road links to ports are vital to allow goods and services to be moved into and around the country efficiently and reliably”*.
- 7.1.5** How the Scheme complies with the relevant sections of the NPS NN is demonstrated in this **Section 7** of the Case for the Scheme (for NPS NN Section 2 – 4), and in **Appendix A** (for NPS NN Section 5).

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### 7.2 National Policy Statement for Ports (NPS for Ports)

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- 7.2.1** The NPS for Ports sets out the framework for making decisions on proposals for new port development and recognises their importance to the UK

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economy, along with the wider economic benefits that ports can bring. It also places emphasis on the vital role that UK ports play in the energy sector, through the import and export of energy supplies, the ongoing need for construction and servicing of offshore energy installations and in supporting oil and gas pipelines.

**7.2.2** It is acknowledged that the Scheme is not a port development. In addition, despite providing vessel waiting facilities, the Scheme does not constitute “*the construction or alteration of harbour facilities*” under Section 14(1)(j) of the Planning Act, nor do any parts of the Scheme meet the definition of the construction or alteration of harbour facilities within Section 24(1) and 24(2) of the Planning Act.

**7.2.3** However, the Scheme does traverse the River Yare, and supports both the nationally significant role of the Port’s renewable energy sector and offshore gas and oil industries, and as an International Gateway. As discussed in **Section 1.1.5** of this document, although the relevant NPS is the NPS NN, the NPS for Ports is also considered where appropriate. As such, the assessment of the Scheme includes reference to relevant paragraphs within the NPS for Ports, provided within this section of the Case for the Scheme, and also within **Appendix A**.

### **7.3 The need for development of the National Networks Government Policy (Section 2 of the NPS NN)**

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#### **Summary of Need**

**7.3.1** Paragraph 2.1 of the NPS NN identifies that “*well connected and high performing networks with sufficient capacity are vital to meeting the country’s long-term needs and support a prosperous economy*”, whilst paragraph 2.2 states that “*there is a critical need to improve the national networks to address road congestion and crowding on railways to support social and economic activity; and to provide a transport network that is capable of stimulating and supporting economic growth*”.

**7.3.2** Paragraph 2.6 advises “*There is also a need for development on the national networks to support national and local economic growth and regeneration, particularly in the most disadvantaged areas. Improved and new transport links can facilitate economic growth by bringing businesses closer to their workers, their markets and each other. This can help rebalance the economy*”.

**7.3.3** Paragraph 2.8 goes on to state: “*There is also a need to improve the integration between the transport modes, including the linkages to ports and airports. Improved integration can reduce end-to-end journey times and provide users of the networks with a wider range of transport choices*”.

**7.3.4** Paragraph 3.1.4 of the NPS for Ports acknowledges that as a result of the lack of viable alternatives “*shipping will continue to provide the only effective*

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*way to move the vast majority of freight in and out of the UK, and the provision of sufficient sea port capacity will remain an essential element in ensuring sustainable growth in the UK economy". Paragraph 3.1.5 of the NPS for Ports goes on to state that "Ports have a vital role in...the construction and servicing of offshore energy installations and in supporting terminals for oil and gas pipelines" and that "Ensuring security of energy supplies through our ports will be an important consideration, and ports will need to be responsive both to changes in different types of energy supplies needed (and to the need for facilities to support the development and maintenance of offshore renewable sites)".*

**7.3.5** As demonstrated in the TA (DCO Document **7.2**), the Scheme provides a substantially improved connection from the A47, part of the SRN, to the Port and Outer Harbour and employment areas. The Scheme will reduce congestion in the town centre, historic areas and sea front and will provide capacity to accommodate the traffic generation associated with the enhancement of the Port's nationally significant role as an international gateway. As set out in **Sections 5.5** and **5.6**, the enhanced connectivity introduced by the Scheme will not be of sole benefit to the Port. The crossing provides a link between residential and commercial uses either side of the river opening up additional employment opportunities, particularly for those individuals without the means to travel to work by car or public transport. In this sense the Scheme will assist in helping to rebalance the economy as envisioned in paragraph 2.6 of NPS NN.

**7.3.6** The benefits of the increased connectivity on the impacts of end to end journey times and integration between transport modes and reduced conflict between vehicles and traffic are also assessed in **Section 5.5**.

#### **Drivers of need for development of the national road network**

**7.3.7** Paragraph 2.16 of the NPS NN identifies how traffic congestion constrains the economy and impacts negatively on the quality of life, whilst paragraphs 2.17-2.19 place emphasis on the need to address congestion and the negative impact it places on the economy, environment and quality of life.

**7.3.8** **Section 5.5** summarises the effect of the Scheme in reducing congestion and delays between the SRN and employment areas within the town. Reduced congestion and improved journey time reliability will provide businesses with more certainty over their route planning, resulting in more control over their costs and an ability to pursue potential opportunities more effectively. **Table 5-3** in the EAR (DCO Document **7.6**) which applies the TUBA methodology to forecast travel time benefits by journey purpose over the 60 year appraisal period. Almost 29% of savings are expected to be realised by freight movements. In monetary terms, nearly £52 million of these savings are attributable to reduced freight journey times whilst over £11 million of savings are as a result of lower freight vehicle operating costs.

### Government's policy for addressing need

- 7.3.9** Paragraph 2.22 specifies that *“without improving the road network, including its performance, it will be difficult to support further economic growth, employment and housing and this will impede economic growth and reduce people’s quality of life. The Government has therefore concluded that at a strategic level there is a compelling need for development of the national road network”*.
- 7.3.10** Paragraph 2.27 recognises that in some cases capacity improvements on their own would not be adequate, and that *“In those circumstances new road alignments and corresponding links, including alignments which cross a river or estuary, may be needed to support increased capacity and connectivity”*.
- 7.3.11** These statements are particularly relevant to the Scheme, and its overall objectives to improve transport links between the Port and the SRN reducing congestion and providing more fluent access between the two.
- 7.3.12** The benefits accruing from the Scheme, at both a national, regional and local level, through improved connectivity to the Port, are outlined in **Sections 5.5** and **5.6**. In addition, the EAR (DCO Document **7.6**) notes in **paragraph 5.2.6** that user benefits attributable to the Scheme, which include for time savings and vehicle operating costs, increase over the forecast years consistently across all the time periods within the 60 year appraisal period. The 2016 SATURN traffic model, upon which the conclusions drawn in the Economic Appraisal Report are based, takes into account future travel demands as well as the likely additional traffic that is expected to arise from new development activity in the town. The inclusion of forecast traffic growth within the appraisal explains the year on year increase in benefits the Scheme provides when compared to the DM scenario. Unless addressed, existing issues arising from the convergence of traffic bound for the peninsula at the Haven Bridge will likely be exacerbated by development pressures associated with planned schemes in the area, such as the regeneration of the Great Yarmouth Waterfront area, which is described in further detail in **Section 8.3** of this document.

### **7.4 Wider Government Policy and National Networks (Section 3 of the NPS NN)**

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- 7.4.1** Paragraph 3.2 of the NPS NN requires that *“The Government recognises that for development of the national road and rail networks to be sustainable these should be designed to minimise social and environmental impacts and improve quality of life”*. The Design Report (DR) (DCO Document **7.4**) sets out how the need to minimise social and environmental impacts and improve quality of life have been at the heart of the design process. For example, two of the Design Principles set out in **Section 4.3** of the DR are *“to minimise environmental impact and promote environmental sustainability”* and *“to create a safe, accessible and inclusive built environment”*.

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- 7.4.2 Furthermore, a comprehensive EIA has been undertaken, together with proposals for mitigation of likely significant environmental effects arising from the Scheme, which is reported in the ES (DCO Document **6.1 – 6.3**). Where specific mitigation is necessary, this is reported under each Chapter of the ES and set out in the Mitigation Schedule (DCO Document **6.13**).
- 7.4.3 Regarding safety, paragraph 3.10 of the NPS NN requires that scheme promoters are expected to “*take opportunities to improve road safety, including introducing the most modern and effective safety measures where proportionate*”. **Section 5.5** sets out the safety benefits anticipated as a result of the implementation of the Scheme. The scheme is forecast to result in a saving of 54 casualties over the 60 year appraisal period.
- 7.4.4 Paragraphs 3.15 and 3.16 outlines the Government’s commitment to developing sustainable transport through its investment in developing a high-quality cycling and walking environment. **Chapter 17** of the ES assesses the Scheme’s enhanced NMU facilities and improved connectivity provided by new footway and cycle paths, signalised crossings and improved access for cyclists. The chapter concludes, in **paragraph 17.10.4**, that during the operational phase, the Scheme would have a large beneficial effect on pedestrian and cyclist journey times and delay, a moderate beneficial effect for public transport users, driver delay and fear and intimidation of non-motorised users and a slight beneficial effect on collisions and safety.
- 7.4.5 Paragraph 3.19 of the NPS NN highlights the Government’s commitment to “*creating a more accessible and inclusive transport network that provides a range of opportunities and choices for people to connect with jobs, services, friends and family*”. Further, paragraph 3.21 directs that scheme promoters are encouraged to promote equality and to consider the needs of disabled people as part of their normal practice.
- 7.4.6 An Equalities Impact Assessment (EqIA) (DCO Document **6.15**) has been carried out to identify any likely effects to vulnerable users under the 2010 Equality Act. The EqIA identified a number of construction effects likely to affect the local community, but in particular protected characteristic groups based on the sensitive receptors present and proximity of the construction works. The effects include construction noise, vibration, air quality, reduced access to community facilities due to road closures and footpath diversions and the reduction in overall size of the MIND Centre and Grounds. Potential negative effects associated with nature conservation, noise and vibration, air quality, road drainage and the water environment, flood risk, materials, people and communities, geology, soils and contamination, and traffic and transport would be mitigated as far as reasonably possible through the implementation of control measures, as set out in the OCoCP (**DCO Document 6.16**). Additional measures included by the Applicant in **paragraph 9.2.9** of the OCoCP to further mitigate impacts to equality groups during construction include:

- Advance notice of any road or footpath closures and/or diversions to be communicated to the local community;
- Footpaths (including diversions) would be maintained for pedestrians and cyclists affected by the Scheme, including reasonable adjustments to maintain or achieve inclusive access;
- Inclusive access (including for people with reduced mobility) would be maintained to community facilities where they have been temporarily disrupted during construction. If additional measures or reasonable adjustments are identified through the community liaison process to ensure accessibility by persons with a disability or reduced mobility, routes and/or diversions should be reviewed;
- Where the usual means of access must be diverted or blocked off, alternative safe routes for persons with reduced mobility would be identified, considering existing hazards and obstructions such as pavement kerbs; and
- Any changes or amendments to public transport services because of the Scheme construction would be clearly communicated in advance to the local community.

**7.4.7** Reducing community severance between the east and west of Great Yarmouth is a Scheme objective. The lack of a southern crossing means that Great Yarmouth is effectively split into two by the River Yare, isolating the community on the peninsula from the western part of the town and vice versa. The EqIA, at **paragraph 6.4.8** concludes that the Scheme “*would be likely to greatly improve connectivity and accessibility to community facilities used by protected characteristic groups. The implementation of a direct link over the River Yare with a maximum gradient of 5% and at-grade signalised crossings with tactile paving provides a more inclusive pedestrian environment for those who may be less mobile or less confident crossing (pregnant women and new mothers, parents with pushchairs, young children, persons with a disability or visual impairment and the elderly). The provision of dedicated footways and cycleways as part of the Scheme that are of suitable widths and gradients is inclusive for persons that require the use of a wheelchair or mobility aid*”.

**7.4.8** Paragraphs 3.26 to 3.27 of the NPS NN state that “*Proposals for tolling or user charging to fund new capacity and/or manage demand on roads or proposed roads that do not form part of the Government’s Strategic Road Network are a matter for local and other traffic authorities*” and that “*Where tolls or road user charges are proposed as part of a highways project that is the subject of a direction given under section 35 of the Planning Act 2008, the Government will expect the applicant to demonstrate that the proposals are consistent with this NPS, the relevant development plan and relevant statutory transport strategies and plans*”.

**7.4.9** No tolling or user charging is proposed for use of the highways comprised in the Scheme. the Scheme. Charges are proposed in **Article 46** of the draft

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DCO (DCO Document **3.1**) in connection with removing unauthorised vehicles from the bridge and subsequent storage and disposal. In addition, **Article 52** allows the applicant to enforce byelaws made under **Article 51** by serving a fixed penalty notice that requires the contravenor to pay a specified amount. The Applicant does not consider these charges to be tolls. In its view a “toll” is a charge for using a highway, and accordingly these charges are “other charges” in the context of the relevant authorising provision of the Planning Act (paragraph 18 of Schedule 5). However, to the extent that they are considered to be tolls, the Applicant requests, in accordance with section 144 of the Planning Act 2008, that the DCO includes provision authorising them.

**7.4.10** As required by NPS NN paragraph 3.27, **Sections 4, 7 and 8** of this document, together with **Appendix A**, demonstrate consistency with the NPS NN, the Local Development Plan, the Government’s Transport Investment Strategy (2017) and the Transport Infrastructure for our Global Future: A Study of England’s Port Connectivity (2018),

**7.4.11** Paragraphs 3.3.1 to 3.3.8 of the NPS for Ports contains similar wider government policy requirements in the context of port development.

## **7.5 General Principles of Assessment**

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### **General Principles of Assessment (Policies 4.1 – 4.6 of the NPS NN)**

**7.5.1** Section 4 of the NPS NN sets out the general policies against which applications for national networks infrastructure are to be decided, together with assessment against the Generic Impact headings contained within Section 5.

**7.5.2** Paragraph 4.2 sets out presumption in favour of granting development consent for national network NSIPs that fall within the need for infrastructure established in the NPS. This is subject to the detailed policies and protections of the NPS NN and the legal constraints set out in the Planning Act.

**7.5.3** Paragraph 4.3 states that in considering any development, and, when weighing its adverse impacts against its benefits, the SoS should take into account:

- *“its potential benefits, including the facilitation of economic development, including job creation, housing and environmental improvement, and any long-term or wider benefits; and*
- *its potential adverse impacts, including any longer-term and cumulative adverse impacts, as well as any measures to avoid, reduce or compensate for any adverse impacts”.*

**7.5.4** **Section 9** of this document sets out the overall anticipated benefits and disbenefits of the Scheme. The ES (DCO Document **6.1 – 6.3**) provides detail

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of the potential adverse impacts arising from the Scheme, both individually and cumulatively, together with measures taken to avoid, reduce, offset or compensate for these impacts. These measures are also summarised in the Mitigation Schedule (DCO Document **6.13**), which outlines how the environmental effects of the Scheme will be mitigated.

- 7.5.5** The context of benefits versus adverse impacts are considered in paragraph 4.4 of the NPS NN, which determines that environmental, safety, social and economic impacts should be considered at national, local and regional levels.
- 7.5.6** Paragraph 4.5 of NPS NN identifies that applications for road projects are to be supported by a Business Case (in accordance with HM Treasury Green Book principles). This business case provides the basis for investment decisions on road and rail projects and will normally be developed based on the Department's Transport Business Case guidance and WebTAG guidance. The economic case should assess the economic, environmental and social impacts of a development. Development considered an NSIP by virtue of a Section 35 direction should also meet this requirement.
- 7.5.7** Paragraph 4.6 of the NPS NN requires that applications for road projects should generally be supported by a local transport model (including national level factors around the key drivers of transport demand such as economic growth, demographic change, travel costs and labour market participation, as well as local factors) to provide details on the impact of the project. The NPS NN further states that the Examining Authority and the SoS "*do not need to be concerned with the national methodology and national assumptions around the key drivers of transport demand*". The NPS NN encourages an assessment of the benefits and costs of schemes under high and low growth scenarios, in addition to the core case, and notes that the modelling should be proportionate to the scale of the project and include appropriate sensitivity analysis to consider the impact of uncertainty on project impacts.
- 7.5.8** The Scheme was granted 'Programme Entry' status by the DfT in the Autumn Statement on 22 November 2017 and provisionally assigned a £98 million capped funding package from Central Government (Funding Statement, DCO Document **4.2**). The OBC followed the DfT's WebTAG Guidance on Transport Business Cases and followed the 5-case model, being strategic, economic, financial, commercial and management, and is in keeping with the principles of the HM Treasury's Green Book. Should the Scheme receive development consent, a Full Business Case (FBC) will be submitted to DfT further updating the environmental, economic and social impacts.
- 7.5.9** The EAR (DCO Document **7.6**) provides an updated assessment of the economic performance of the Scheme, incorporating changes to modelling assumptions since the production of the OBC.



**7.5.10** User benefits were calculated using the (DfT) Transport Users Benefit Appraisal tool (TUBA) Version 1.9.10 and consider time savings, vehicle operating cost savings, greenhouse gases and taxes. Accident benefits were calculated using DfT's Cost and Benefit to Accidents – Light Touch Programme (COBA-LT). The results from TUBA, COBA-LT and other benefits were combined to calculate the overall economic benefits of the scheme. The Appraisal Summary Table (AST), which is included in the EAR as **Table 5-17**, presents in a single table of all the evidence from the core scenario economic appraisal. It records all the impacts which have been assessed and described above, in addition to SDI and environmental impacts and summarises the assessment using monetised, quantitative or qualitative information as appropriate. As stated in **paragraphs 4.4.21** and **4.4.22** of the EAR (DCO Document **7.6**) the environmental appraisal of the Scheme, including the noise and air quality impacts (which informed the Social and Distributional Impact assessment) were initially developed on a qualitative basis for OBC and will be updated for the FBC. The appraisal provided for the FBC will include quantified, qualitative and monetised assessments where required by WebTAG. The exception to this is that Greenhouse gas benefits arising from the results of the Environmental Statement have been monetised within the TUBA appraisal and are included in the BCR calculation on that basis only.

**7.5.11** As set out in **Table 5-4** of this document, which is taken from the EAR, following a comparison between the construction and maintenance costs and traffic benefits of the scheme over a 60 year appraisal period, the adjusted Benefit to Cost Ratio (BCR) of 2.7 for the core scenario, which includes reliability and wider benefits, was calculated, which represents high VfM.

**7.5.12** Paragraph 4.9 of the NPS NN confirms that only requirements that are necessary, relevant to planning, relevant to the development to be consented, enforceable, precise, and reasonable in all other respects should be imposed in relation to a DCO. The draft DCO (DCO Document **3.1**) includes provisional Requirements at **Schedule 2**.

**7.5.13** Paragraphs 4.1.1 – 4.6.5 of the NPS for Ports contains assessment principles relating to port related development and are therefore not relevant to this assessment.

**Environmental Impact Assessment (4.15 – 4.16, 4.18 – 4.19 of the NPS NN; 4.7.1 – 4.7.5 of the NPS for Ports)**

**7.5.14** Paragraph 4.15 of the NPS NN advises that all proposals for projects that are subject to the European Union's Environmental Impact Assessment Directive ("the EU Directive") and that "*are likely to have significant effects on the environment*", must be accompanied by an ES, describing the aspects of the environment likely to be significantly affected by the Scheme. The paragraph goes on to describe the requirements of the EU Directive and the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009. Both the EU Directive referred to in the NPS NN (Council Directive

92/2011) and the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 have since been replaced by Council Directive 2014/52/EU and Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (“the EIA Regulations”) respectively, although this change has not yet been reflected in the NPS NN.

- 7.5.15** This DCO application is accompanied by an ES (DCO Document **6.1 – 6.3**) which details the likely significant effects on the environment and where necessary, mitigation measures to reduce any residual effects of the Scheme. The ES meets the requirements of the 2017 EIA Regulations.
- 7.5.16** The scope of the ES has been consulted upon with key stakeholders and the Planning Inspectorate through the submission of a EIA Scoping Report (DCO Document **6.6**) and a formal Scoping Opinion, received in May 2018 (DCO Document **6.7**). The scoping process, as prescribed by the requirements of the EIA Regulations, is further explained in **Section 1.5** of the ES **Chapter 1**. In accordance with paragraph 4.16 of the NPS NN, **Chapter 19** ‘Cumulative Effects’ of the ES provides an assessment of the likely significant effects of the Scheme in combination with other past, present and reasonably foreseeable development, as well as impact interactions.
- 7.5.17** Paragraphs 4.18 - 4.19 of the NPS NN advise that the ES should set out, to the best of the applicant’s knowledge, the maximum extent of a scheme, and should assess the potential adverse effects accordingly. In this regard, paragraph 4.18 acknowledges that *“in some instances it may not be possible at the time of the application for development consent for all aspects of the proposal to have been settled in precise detail. Where this is the case, the applicant should explain in its application which elements of the proposal have yet to be finalised, and the reasons why this is the case”*. The works required for delivery of the Scheme, are set out in **Schedule 1** of the draft DCO (DCO Document **3.1**) and are referred to in the DCO as the “authorised development”. **Article 6** of the draft DCO sets out the Scheme’s limits of deviation. Together with the parameters of assessment (defined in **Chapter 2** of the ES), the limits of deviation have been defined to ensure that detailed design does not lead to any new or materially different environmental impacts that have not already been addressed in the ES. As explained in **Chapter 2** of the ES, the ES has been prepared taking this into account, in accordance with PINS Advice Note 9<sup>56</sup> (2018).
- 7.5.18** Paragraphs 4.7.1 – 4.7.5 of the NPS for Ports contains assessment principles related to EIA which are not materially different to those set out above.
- Habitat Regulations Assessment (4.22 – 4.25 of the NPS NN; 4.8.1 of the NPS for Ports)**
- 7.5.19** Paragraph 4.22 of the NPS NN states that, prior to granting development consent the SoS must, under the Conservation of Habitats and Species Regulations 2010<sup>57</sup> and the Offshore Marine Conservation (Natural Habitats)

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Regulations 2007<sup>58</sup> “consider whether it is possible that the project could have a significant effect on the objectives of a European site, or on any site to which the same protection is applied as a matter of policy, either alone or in combination with other plans or projects.” The Habitat Regulations were consolidated and updated in 30 November 2017 although the substantive position is unchanged. In this regard the NPS NN requires applicants to seek advice from Natural England.

- 7.5.20** Paragraph 4.23 of the NPS NN requires applicants to provide sufficient information with their application to enable the SoS to “carry out an *Appropriate Assessment if required*”, which needs to “include details of any measures that are proposed to minimise or avoid any likely significant effects on a European site”.
- 7.5.21** Habitats Regulation Assessment (HRA) documentation is presented in DCO Document **6.11**. This concludes that the Scheme, alone or in combination with any other plan or proposal, would not affect the integrity of any European Site.
- 7.5.22** The Applicant has engaged Natural England and sought their advice at various points throughout the design process and during production of the HRA and ES. **Table 3-1** of the HRA details consultation between the Applicant and Natural England. **Table 3-1** details specific issues, summarises Natural England comments and describes how the Applicant has responded. For example, Natural England provides advice in relation to the recent ‘People Over Wind’ ruling, to which the Applicant confirms that the “*HRA follows Natural England’s approach regarding embedded mitigation with integrity matrices providing transparency on such an approach*”. The Applicant is aiming to agree a Statement of Common Ground (SoCG) with Natural England. Work on the SoCG is underway, and the Applicant envisages that the SoCG will be progressed and developed throughout the DCO examination period.
- 7.5.23** As the HRA documentation concludes that the Scheme, alone or in combination with any other plan or proposal, would not affect the integrity of any European Site, paragraph 4.24 and paragraph 4.25 do not apply.
- 7.5.24** Paragraph 4.8.1 of the NPS for Ports also makes reference to the need to consider effects on European sites, which is not materially different to the requirement set out in the NPS NN.

**Alternatives (4.26 – 4.27 of the NPS NN; 4.9.1 – 4.9.3 of the NPS for Ports)**

- 7.5.25** Paragraph 4.26 of the NPS NN requires applicants to comply with all legal requirements and any policy requirements set out in this NPS on the assessment of alternatives, “with the EIA’s Directive alternatives, applicants should take account of requirements on the assessment of alternatives”, in particular the EIA Directive, the Habitats and WFD, and other NPS policy requirements (for example the flood risk sequential test).

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- 7.5.26 Chapter 3** of the ES (summarised within **Section 5** of this document) sets out the alternative options considered during the development of the Scheme, including the reasons for the final option chosen, taking into account the associated environmental effects.
- 7.5.27** The HRA documentation (DCO Document **6.11**) did not consider the issue of alternatives, given that it concluded that the Scheme, alone or in combination with any other plan or proposal, would not affect the integrity of any European Site.
- 7.5.28 Table 11-16** in **Chapter 11** of the ES and the WFD Assessment (**DCO Document 11E**) consider the effect of the Scheme in relation to various WFD waterbodies and confirms that the Scheme will be compliant with the requirements of the WFD. On this basis there is no further requirement to consider alternatives in this regard.
- 7.5.29** As the Scheme involves a bridge crossing a river, there are no viable alternative sites within Flood Zone 1 or Flood Zone 2 as the infrastructure has to cross the floodplain. The Flood Risk Assessment (FRA) (DCO Document **12B**) sets out that the Scheme has been subject to the Sequential Test. Drawing on previous optioneering work undertaken, **Chapter 3** of the ES explains the reasons for the choice of location for the Scheme, concluding that it is the most appropriate location.
- 7.5.30** Paragraph 4.27 of the NPS NN requires that all projects should be subject to an options appraisal: *“For national road and rail schemes, proportionate option consideration of alternatives will have been undertaken as part of the investment decision making process. It is not necessary for the Examining Authority and the decision maker to reconsider this process, but they should be satisfied that this assessment has been undertaken”*.
- 7.5.31** Paragraph 4.9.1 of the NPS for Ports states that *“this NPS does not contain any general requirement to consider alternatives or to establish whether the proposed project represents the best option”*.
- 7.5.32** Paragraph 4.9.2 of the NPS for Ports also notes that in some circumstances there are specific legislative requirements for the applicant and decision-maker to consider alternatives which should be identified in the ES. Applicants are obliged to include factual information in their ES regarding the main alternatives they have studied when reviewing environmental, social and economic effects. A number of principles are to be followed when deciding what weight should be given to alternatives, as upheld in paragraph 4.9.3, these are subject to legal requirements.
- 7.5.33** As described in **Section 5.2** and **5.3** of this document, an options appraisal was completed, and is fully referenced in the ES, which should be read alongside this document. As such, the Scheme is considered to be fully compliant with the relevant NPS paragraphs set out above.

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**Criteria for ‘Good Design’ for National Network Infrastructure (4.28 – 4.35 of the NPS NN; 4.10.1 – 4.10.5 of the NPS for Ports for New Port Infrastructure).**

**7.5.34** Paragraphs 4.28 to 4.35 of the NPS NN require that good design practices are to be engaged from the proposal’s outset, noting that “*visual appearance should be a key factor in considering the design of new infrastructure, as well as functionality, fitness for purpose, sustainability and cost*”. The Scheme design has been driven by the desire to create a new ‘place’ in Great Yarmouth, not only capable of resolving the needs set out in **Section 4** of this document but also providing a positive pedestrian environment with good connections to existing networks and offering a safe and appealing user experience. The design has been guided by the Design Principles set out in **Section 4.3** of the DR (**DCO Document 7.4**). The Design Principles are reflective of the NPS criteria for good design and are as follows:

- *“To support the regeneration of Great Yarmouth by improving strategic connectivity for the port, businesses and individuals, creating a positive experience for all users.*
- *To integrate with and complement Great Yarmouth by providing a ‘place’, not just a piece of infrastructure.*
- *To ensure an integrated design narrative that unites the various elements of the Scheme as a coherent whole.*
- *To ensure the use of high quality materials and detailing that responds to the local context, cultural heritage and future aspirations of the town.*
- *To minimise environmental impact and promote environmental sustainability.*
- *To create a safe, accessible and inclusive built environment”.*

**7.5.35** Paragraph 4.31 of the NPS NN states that “*a good design will also be one that sustains the improvements to operational efficiency for as many years as is practicable, taking into account capital cost, economics and environmental impacts*”. Paragraph 4.32 reiterates that design is a material consideration of decision making, and the SoS needs to be satisfied projects are “sustainable and aesthetically sensitive, durable, adaptable and resilient as they can reasonably be (having regard to regulatory and other constraints and including accounting for natural hazards such as flooding)”. Paragraph 4.33 requires the applicant take into account the purpose, sustainability and aesthetics of schemes whilst also considering the role technology can play. Paragraph 4.33 goes on to suggest that professional, independent advice on the design aspects of the proposal should be considered to help embed good design principles. Paragraph 4.35 requires applicants to demonstrate how the design process was conducted and how the design evolved.

**7.5.36** Paragraphs 4.10.1 – 4.10.5 of the NPS for Ports contains assessment principles related to good design that are not materially different to those previously set out.

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- 7.5.37** The design process has been informed and influenced by guidance produced by Design Council CABE (DCC), in particular the publication titled ‘A design-led approach to infrastructure’<sup>59</sup>, as set out in **Section 3.4** of the DR.
- 7.5.38** The DR sets out the Design Principles and the objectives and aspirations for the Scheme as well as the constraints that factored into the final design. **Section 6** of the DR sets out the design process and explains how the Scheme responds to the established Design Principles. The DR also considers the acceptability of the design in terms of its functionality, fitness for purpose, sustainability and cost. **Table 1** in the DR provides a review of the Scheme design in terms of its adherence to the criteria set out in paragraphs 4.28 to 4.35 of the NPS NN.
- 7.5.39** **Chapter 10** of the ES considers the potential impacts of the Scheme upon the townscape of Great Yarmouth in addition to impacts on the visual amenity of receptors within the study area. The assessment in **Chapter 10** predicts that effects on townscape would be no greater than Slight Adverse during construction, with the greatest effects limited to areas where the Scheme would be located. On this basis there are no significant effects on townscape predicted at construction. Slight or Moderate Adverse effects on visual receptors are predicted during construction as a result of vegetation clearance, demolition of buildings and construction activities. No significant effects on townscape are predicted for Year 1 or beyond as a result of the Scheme. Following the implementation of embedded mitigation, including tree planting and landscaping, **Chapter 10** predicts Moderate Adverse operational effects at four viewpoints, Slight Adverse effects at five viewpoints and neutral effects on viewpoints at nine viewpoints. At Year 15 following establishment of embedded mitigation there would be Slight Beneficial operational effects on people at Viewpoints 1 and 16 with a Slight Adverse effect on Viewpoints 6 and 15. There are therefore no significant operational effects on visual amenity predicted for Year 15.
- 7.5.40** Variable Message Signs (VMS) are incorporated in the Scheme at various key locations to inform road users about planned bridge openings allowing them to plan alternative routes thus assisting with the general flow of traffic on the network. The provision of VMS within the Scheme demonstrates that the use of technology has been adequately considered and adopted in accordance with NPS paragraph 4.33.
- 7.5.41** With regards to the requirements of paragraph 4.34 of NPS NN, the following chapters in the ES set out how opportunities to demonstrate good design, in terms of siting and design measures relative to existing landscape and historical character and function, landscape permeability, landform and vegetation, have been implemented:

- **Chapter 8** 'Nature Conservation';
- **Chapter 9** 'Cultural Heritage';
- **Chapter 10** 'Landscape and Visual Impact';
- **Chapter 11** 'Road Drainage and Water Environment';
- **Chapter 14** 'People and Communities';
- **Chapter 15** 'Materials'; and
- **Chapter 16** 'Geology and Soils'.

**Climate Change Adaptation (4.38, 4.40 – 4.47 of the NPS NN; 4.12.1 – 4.13.15 of the NPS for Ports)**

- 7.5.42** Paragraph 4.38 of the NPS NN requires that new development should “*be planned to avoid increased vulnerability to the range of impacts arising from climate change*”, and “*when new development is brought forward in areas which are vulnerable, care should be taken to ensure that risks can be managed through suitable adaptation measures, including through the provision of green infrastructure*”. Under paragraph 4.40, “*applicants must consider the impacts of climate change when planning location, design, build and operation*”. The NPS NN further states that the ES should set out how the Scheme would take account of the projected impacts of climate change.
- 7.5.43** Paragraphs 4.41 and 4.42 of the NPS NN require the Applicant to apply the UK Climate Projections (UKCP) 2009 high emissions scenario against the 2080 projections at the 50% probability level, where transport infrastructure has a safety critical element and the design life of the asset is over 60 years.
- 7.5.44** The FRA for the Scheme, which is set out at **Appendix 12B** of the ES, has assessed the risk of flooding to the Scheme over its lifetime and the impact of the Scheme on flood risk elsewhere, taking into account the future implications of climate change.
- 7.5.45** In assessing the flood risk of each of the design events modelled, the FRA makes an allowance for sea level rise representing the impact of climate change and applies it to the present day tidal curves to calculate the future climate change scenario. Following consultation, the EA’s recommended approach of reviewing all of the scenarios and selecting the highest potential future sea level rise calculated was adopted. The highest sea level rise was calculated using UKCP18<sup>60</sup> 95% RCP8.5 scenario (a rise of 1.83m by 2140) and this value has been used in this assessment to represent climate change as it is a conservative increase derived in line with the EA’s recommendation.
- 7.5.46** **Section 9.1** of the FRA concludes that the most significant source of flooding in Great Yarmouth as a whole and to the Principal Application Site is tidal flooding. The FRA concludes that the bridge deck itself is not at risk of tidal flooding even in the extreme climate change scenarios tested, however the

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approach roads to the bridge are shown to be at risk. The impact of the Scheme on the level of flood risk in Great Yarmouth has at worst been found to be moderate (up to 0.1m increase in flood level in a small area) and the impact of the Scheme is reduced for the climate change scenarios where the base flood level is higher than for the present day. Given the existing level of tidal flood risk within Great Yarmouth as detailed in the FRA, it has been deemed impractical to provide mitigation to reduce the modest impact of the Scheme on tidal flooding within Great Yarmouth.

- 7.5.47** The FRA has found that surface water runoff from the Principal Application site will increase as a result of the Scheme, however a Drainage Strategy (**Appendix 12C**, DCO Document **6.3**) has been prepared, which details how surface water runoff will be managed on the Principal Application Site to avoid an increase in surface water flood risk elsewhere.
- 7.5.48** Paragraph 4.43 requires the applicant to demonstrate that no critical features of the design will be affected by climate change beyond those projected in the latest UKCP and that any *“potential critical features should be assessed taking account of the latest credible scientific evidence on, for example, sea level rise (e.g. by referring to additional maximum credible scenarios such as from the Intergovernmental Panel on Climate Change or Environment Agency) and on the basis that necessary action can be taken to ensure the operation of the infrastructure over its estimated lifetime through potential further mitigation or adaptation”*.
- 7.5.49** Paragraph 4.44 requires that any adaptation measures should be based on the latest set of UKCP, the Government’s Climate Change Risk Assessment and consultation with statutory consultation bodies. Any adaptation measures must themselves also be assessed as part of any EIA and included in the ES, which should set out how and where such measures are proposed to be secured. In accordance with paragraph 4.45, if any proposed adaptation measures result in consequential impacts, the SoS should consider the impact in relation to the application as a whole and the impacts guidance set out in Section 4 of the NPS NN (e.g. on flooding, water resources, biodiversity, landscape and coastal change).
- 7.5.50** Paragraph 4.46 notes that mitigation measures can be implemented at the time of construction where it is deemed appropriate.
- 7.5.51** Paragraphs 4.12.1 – 4.12.10 of the NPS for Ports contains climate change mitigation policies in relation to port related development particularly in relation to shipping and therefore this is not relevant to this assessment. Paragraphs 4.13.1 - 4.13.15 of the NPS for Ports relate to climate change adaption in relation to new port infrastructure but are not materially different to those set out above.



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**7.5.52 Chapter 13** 'Climate Change' of the ES sets out how the Scheme takes account of the projected impacts of climate change based on the estimated lifetime of the new asset. The ES concludes that, following the implementation of adaptation measures for the Scheme, the residual climate risks have been assessed as not significant. **Table 13.24**, in **Chapter 13** concludes that the majority of climate risks have a high resilience rating (i.e. there is a strong degree of climate resilience, remedial action or adaptation).

**7.5.53 Chapter 13** identifies difficult working conditions; reduced maintenance opportunities; reduced working periods; and operational disruption as climate change risks with a moderate resilience rating. Additional measures such as allowing suitable contingency within construction and maintenance schedules, implementing maintenance regimes and regular inspections, and maintaining a list of weather-related incidents are recommended. On this basis the conclusion reached is that the Scheme design has suitably considered climate change aspects such that the risks to critical design features should not be significant.

**7.5.54** The Drainage Strategy (Appendix **12C**, DCO Document **6.2**), sets out drainage philosophy for the Scheme and accounts for climate change predictions in determining attenuation requirements.

**7.5.55 Section 7.2** of the OCoCP (DCO Document **6.16**) sets out that the Contractor shall prepare and adopt a flood management plan, as part of their full CoCP, detailing a list of important contacts; a description or map showing locations of key property, protective materials and service shut-off points; basic strategies for protecting property, preventing business disruption and assisting recovery; and checklists of procedures that can be quickly accessed by staff during a flood. The measures set out in the OCoCP will be incorporated in the final CoCP, which will be submitted for the approval of the County Planning Authority in accordance with a draft requirement in **Schedule 2** of the DCO (DCO Document **3.1**).

**7.5.56** Paragraphs 4.12.1 – 4.12.10 of the NPS for Ports contains climate change mitigation policies in relation to port related development that is not relevant to this assessment. Paragraphs 4.13.1 - 4.13.15 relate to climate change (in relation to new port infrastructure), however the requirements stated are not materially different to those set out above. **Chapter 13** considers the vessel waiting facilities to be insignificant on the basis that, due to the negligible quantity of materials they require and the floating nature of the facilities, they are unlikely to be affected by the climate change scenarios presented.

**Pollution Control and Other Environmental Protection Regimes (4.48 – 4.54 of the NPS NN; 4.11.1 – 4.11.8 of the NPS for Ports)**

**7.5.57** Under paragraph 4.48 of the NPS NN, discharges or emissions from a proposed national network which affect air quality, water quality, land quality and the marine environment, or which include noise and vibration, may be

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subject to other consenting and licensing regimes or to separate regulations. This is further supported by paragraph 4.49, which acknowledges that these controls are largely complementary to those of the planning system.

**7.5.58** Paragraph 4.50 provides that “*in deciding an application, the Examining Authority and the Secretary of State should focus on whether the development itself is an acceptable use of the land, and on the impacts of that use, rather than the control of processes, emissions or discharges themselves*”. The Consents and Agreements Position Statement (DCO Document **7.3**) identifies which consents, permits and exemptions are expected to be needed for the Scheme, and confirms whether they will be sought within the draft DCO.

**7.5.59** Paragraph 4.51 advises that “*these considerations apply in an analogous way to other environmental regulatory regimes, including those on land drainage and flood defence and biodiversity*”. The Consents and Agreements Position Statement acknowledges the need for such consents.

**7.5.60** Paragraph 4.52 of NPS NN confirms the duty of the applicant, where applicable, to consult with the Marine Management Organisation (“MMO”) on national network projects that affect, or have the potential to affect, relevant marine areas. Details of this consultation and the interaction with marine plans are set out in **Section 7.8** of this document below.

**7.5.61** **Tables 11-12 to 11-15 of Chapter 11** of the ES summarise the findings of the assessment of potential impacts and resulting significance of effects from the construction and operation of the Scheme on the identified surface water and groundwater receptors. Embedded mitigation is discussed in **paragraph 11.7.1** and includes details regarding the management of accidental spillages, the control of runoff from temporary construction compounds, areas of stockpiling, the disposal of contaminated sediments, as well as information regarding training and monitoring procedures during construction. Such measures are included in **Section 6.2** of the OCoCP and will be incorporated in the final CoCP, which will be submitted for the approval of the County Planning Authority in accordance with a draft requirement in **Schedule 2** of the DCO (DCO Document **3.1**).

**7.5.62** The Drainage Strategy (**Appendix 12C**), sets out the drainage philosophy for the Scheme. This includes a storm water attenuation pond and below ground storage features. The key principles of the drainage strategy are:

- “*All runoff to be adequately treated before entering receiving waterbodies/systems;*
- *The inclusion of SuDS within the design;*
- *Existing surface water flooding to be considered as part of the proposed design to ensure that all existing flow routes are drained, surface water flood*

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*risk is not increased and enhancement is provided where reasonably practicable and appropriate;*

- *All drainage features to be designed and construction with consideration of shallow groundwater. Features to be lined where necessary to prevent surface and groundwaters coming into direct contact; and*
- *Future access for maintenance of drainage systems to be considered in the detailed design”.*

**7.5.63** Where Environmental Permits are required, the application must demonstrate that processes are in place to meet all relevant requirements for those permits. Under paragraph 4.54 of the NPS NN, applicants are encouraged to engage with the Environment Agency as early as possible with regards to the requirements for consents. The Environment Agency has been consulted on various elements of the Scheme throughout the design process, as set out in **Table 12-4** in **Chapter 12** of the ES. The Applicant is aiming to agree a SoCG with the EA. Work on the SoCG is underway, and the Applicant envisages that the SoCG will be progressed and developed throughout the DCO examination period. The Consents and Agreements Position Statement (DCO Document **7.3**) sets out that, save Environmental Permits for flood risk activities (the requirement for which the Applicant seeks the Environment Agency’s consent to disapply), Environmental Permits required under the Environmental Permitting (England and Wales) Regulations 2016 will be sought separately from the DCO.

**7.5.64** Paragraphs 4.11.1 – 4.11.8 of the Ports NPS contain an assessment of the principles related to pollution control and other environmental regulatory regimes which are not materially different to those set out above.

**Common law Nuisance and Statutory Nuisance (4.58 of the NPS NN; 4.14.1 – 4.14.3 of the NPS for Ports)**

**7.5.65** In accordance with paragraph 4.58, possible sources of nuisance under Section 79(1) of the Environmental Protection Act (EPA) 1990, and how they should be mitigated will need to be considered.

**7.5.66** A Statutory Nuisance Statement (DCO Document **6.10**) considers these requirements and concludes that subject to the adoption of mitigation set out in the document and within OCoCP (DCO Document **6.16**), it is not expected that there would be a breach of Section 79(1) of the Environmental protection Act 1990 during construction or operational activities. The Statutory Nuisance Statement confirms that any construction activities with the potential to create a nuisance will be controlled through the full CoCP which sets out the high-level obligations by which the Contractor must abide and is based upon the OCoCP. The full CoCP will be submitted for the approval of the County Planning Authority in accordance with a draft requirement in **Schedule 2** of the DCO (DCO Document **3.1**).

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**7.5.67** The NPS for Ports includes assessment principles related to common law nuisance and statutory nuisance which are not materially different under Paragraphs 4.14.1-4.14.3.

**Safety (4.60 – 4.66 of the NPS NN)**

**7.5.68** Paragraphs 4.60 – 4.66 outline how new road infrastructure should consider and improve road safety.

**7.5.69** Paragraph 4.60 notes that opportunities to improve road safety using the most modern and effective safety measures, should be taken, whilst paragraph 4.61 requires applicants to undertake an objective assessment of the impact of the proposed development on safety, to include the impact of any mitigation measures. Paragraph 4.61 further advises that such an assessment should use the methodology outlined in guidance from the DfT (WebTAG), and from HE.

**7.5.70** In accordance with Paragraphs 4.62 and 4.63, a Stage 1 Road Safety Audit (“RSA”) Report has been prepared and is set out in **Appendix C** of the DR (DCO Document **7.4C**). A Stage 2 RSA will be completed on completion of detailed design, whilst a Stage 3 RSA will be completed on completion of construction.

**7.5.71** In accordance with Paragraphs 4.64 and 4.65 of the NPS NN, applicants are required to demonstrate that schemes are consistent with HE’s Safety Framework, and the Strategic Framework for Road Safety, and where necessary measures have been taken to:

- *“minimise the risk of death and injury arising from their development;*
- *contribute to an overall reduction in road casualties;*
- *contribute to an overall reduction in the number of unplanned incidents; and*
- *contribute to improvements in road safety for walkers and cyclists”.*

**7.5.72** The Highways England Safety Framework for the Strategic Road Network supports the DfT Strategic Framework for Road Safety. The HE document sets out both the strategic framework and a package of policies to target a reduction in the number of KSIs (killed and seriously injured casualties) on Britain’s roads. It describes the Government’s commitment to supporting local decisions, by freeing local authorities to determine their own solutions that are tailored to the specific needs and priorities of their own communities. It encourages more local and community decision making through decentralisation.

**7.5.73** In addition, applicants will wish to demonstrate that:

- *“they have considered the safety implications of their project from the outset; and*
- *they are putting in place rigorous processes for monitoring and evaluating safety”.*

**7.5.74** Paragraph 4.66 of the NPS NN, states that development for road schemes should not be consented by the SoS unless satisfied that the application has taken reasonable steps to mitigate road casualty risks and improve the safety of the SRN.

**7.5.75** The Scheme has been developed in accordance with the Framework guidance, and the Applicant has liaised closely with DfT and Highways England throughout. A joint study into the potential performance and value for money of different combinations of schemes at the A47 junctions in Great Yarmouth junctions has recently been completed, and a Statement of Common Ground between the Applicant and HE is being developed. One of the Scheme objectives relates to improving road safety, and the COBA-LT analysis forecasts that the Scheme will achieve a reduction in the number of accidents and casualties across the study area, including the SRN corridor and junctions, as described in greater detail below.

**7.5.76** The ‘Priorities for Road Safety’ set out in Norfolk’s Transport Plan for 2026: Connecting Norfolk (“the Norfolk Local Transport Plan”) have been applied to the Scheme. The Norfolk Local Transport Plan sets short term goals, including promoting safer travel behaviour, delivery measures talking safety concerns and better enforcement on unsafe driving. Longer term goals are the creation of environments that encourage people to walk or cycle and safer highway networks.

**7.5.77** The EAR (DCO Document **7.6**) provides an assessment of the Scheme’s safety benefits using the COBA-LT analysis software. All junctions where at least one PIA was recorded in the 6-year period between 2010 and 2015 were included in the assessment. Any other major junctions impacted by the Scheme were also included. The safety benefits were assessed for a 60 year period (2023 to 2082) with an opening year of 2023, a design year of 2038 and a horizon year of 2051. Overall, the Scheme is forecast to save 54 casualties with a resultant benefit of £0.9 million over the 60 year appraisal period. These results demonstrate that the Scheme provides a small improvement to the overall safety of links and junctions in the Study Area.

**7.5.78** **Chapter 2** of the ES also references the fact that the highway aspects of the Scheme have been designed with reference to the Design Manual for Roads and Bridges (DMRB), which sets out minimum widths of elements such as carriageways, central reserves, footways and cycle tracks.

**7.5.79** In addition, **Table 18-8** in **Chapter 18** of the ES (DCO Document **6.1**) details embedded mitigation in the Scheme design, such as VMS at various key points

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on the network, and construction mitigation, set out in documents such as the OCoCP (DCO Document **6.16**), to ensure the Scheme reduces, to as low as reasonably practicable, the risk of major road accidents occurring.

**Security Considerations (4.75 – 4.77 of the NPS NN; 4.17.1 – 4.17.6 of the NPS for Ports)**

- 7.5.80** Paragraph 4.75 confirms Government policy that requires proportional protective security measures be incorporated into new infrastructure where necessary. Where applications for development consent for infrastructure covered by this NPS relate to potentially ‘critical’ infrastructure, there may be national security considerations.
- 7.5.81** Paragraph 4.76 requires that applicants should consult with the Centre for the Protection of National Infrastructure (CPNI) and DfT to ensure that physical, procedural and personnel security measures have been adequately considered in the design process and that adequate consideration has been given to the management of security risks. The CPNI were consulted during the Scheme design and deferred comment to the local Police Counter Terrorism Security Advisor (CTSA). The Norfolk Constabulary CTSA has been consulted and their response is included in the Security Technical Note (**Appendix C**).
- 7.5.82** Consultation with the DfT has been held throughout the development of the Scheme, as set out in **Chapter 17** of the ES. For example, as set out in **Table 17-4** in **Chapter 17**, updates to the SATURN traffic model and appraisal were updated as a consequence of consultation with the DfT.
- 7.5.83** Paragraph 4.77 requires that new infrastructure incorporates proportionate security measures and, as such, that security has been considered during the development of the design.
- 7.5.84** In accordance with the requirements of the EIA Regulations 2017, the vulnerability of the Scheme to risks of major accidents and/or disasters, including potential breaches of security due to public disorder or terrorist acts, is assessed in **Chapter 18** of the ES. According to **Chapter 18**, no events of public disorder or malicious attacks/terrorism have been recorded in the Study Area (1km buffer around Principal Application Site).
- 7.5.85** A Security Technical Note is included in **Appendix C** of this document, which considers the threat posed by hostile vehicles, both to the structure of the crossing itself and to those using it. Due to the extremely low number of both incidents and casualties arising from them in the UK it has not been possible to score the risk posed by hostile vehicles to users. However, the Security Technical Note concludes that the threat of a hostile vehicle attack against the crossing’s users is considered to be extremely low. In a pre-application consultation response regarding the content of the Security Technical Note the Norfolk Police CTSA state that they “*appreciate that HVM measures may*

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*not be considered proportionate for this particular project, however, some level of deterrent should be considered. The Haven Bridge in Great Yarmouth (Bridge Road) has a level of deterrent in place. At this time Great Yarmouth is in the process of steady redevelopment and the potential for future threat change exists. At the time of this email, there is no information or intelligence to cause rebuttal to the threat assessment on the project as stated in the titled document (7.1c Security Technical Note). Details have been previously discussed in regards to PAS 170 and Visual Deterrent Street Furniture (VDSF) that I am happy to discuss again if so desired”.*

- 7.5.86** The Security Technical Note concludes that on the basis that the threat of a hostile vehicle attack against pedestrian and cyclist users of the bridge is assessed as extremely low, VSB bollards are not included by the Applicant in the Scheme design. The Applicant will, however, continue to liaise with the Norfolk Police CTSA to ensure that alternative measures, such as Visual Deterrent Street Furniture (VDSF), are considered and employed if appropriate.
- 7.5.87** The HSE were consulted as part of the statutory consultation for the Scheme and confirmed there are two major accident hazard Control of Major Accident Hazards (COMAH) installations in the vicinity of the Principal Application Site, which are the Transco Great Yarmouth Gas Holders and ASCO Fuels and Lubricants. As stated in **Chapter 18**, the Applicant is currently undergoing consultation with the operators of the two sites regarding potential impacts and interactions with the Scheme. As stated in the OCoCP (DCO Document **6.16**), the Applicant will also discuss measures to mitigate any risks identified during the construction phase.
- 7.5.88** The draft DCO in **Article 51** provides that bylaws will regulate the behaviour of bridge users, people who come into contact with the bridge and the general public.
- 7.5.89** Paragraphs 4.17.1 – 4.17.6 of the NPS for Ports includes security considerations that are not materially different to those set out above.
- Health (4.81 – 4.82 of the NPS NN; 4.16.1 – 4.16.5 of the NPS for Ports)**
- 7.5.90** Paragraph 4.81 of the NPS NN requires that “*where the proposed project has likely significant environmental impacts that would have an effect on human beings, any environmental statement should identify and set out the assessment of any likely significant adverse health impacts that due to infrastructure having potential health impacts, the ES should identify and assess the likely significant adverse health impacts*”.
- 7.5.91** Paragraph 4.82 requires that measures should be identified to avoid, reduce or compensate for adverse health impacts as necessary. It is noted that cumulative health impacts should be considered in this regard.

**7.5.92** Within the EIA Scoping Opinion, the Planning Inspectorate agreed that a stand-alone Health aspect chapter in the ES was not required, however, that for clarity the ES should contain a table which provides a clear cross-reference to where the relevant information and assessment of Human Health is located in the ES, which is presented in **Table 4.1** in **Chapter 4** of the ES. As a summary:

- Human Health effects associated with air quality are considered in **Chapter 6** (Air Quality);
- Human Health effects associated with noise and vibration are considered in **Chapter 7** (Noise and Vibration);
- Potential effects associated with community severance, loss of property, economic aspects and community facilities are considered in **Chapter 14** (People and Communities);
- Human Health effects associated with contaminated land are considered in **Chapter 16** (Geology and Soils); and
- Combined effects upon human health are considered in **Chapter 19** (Cumulative Effects).

**7.5.93** In addition to quantifying the likely significant adverse health impacts, each relevant ES Chapter incorporates measures to avoid or mitigate adverse health impacts as necessary.

**7.5.94** In addition, the Scheme offers an opportunity for walking and cycling provisions, therefore enhancing health and wellbeing. **Plates 5-5** and **5-6**, which are taken from the TA, illustrate the significant improvement in accessibility for NMUs as a result of the Scheme.

**7.5.95** Paragraphs 4.16.1 – 4.16.5 of the NPS for Ports contains assessment principles related to health that are not materially different to those set out above.

### Summary

**7.5.96** The general principles of assessment used as a basis for decision making for national networks projects within the DCO process have been set out above. It has been demonstrated that the Scheme has been developed following detailed consideration of the NPS NN general principles of assessment.

## 7.6 Generic Impacts

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**7.6.1** Section 5 of the NPS NN includes the generic impacts which are to be assessed for NSIP proposals, including:

- Air quality;



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- Carbon emissions;
  - Biodiversity and ecological conservation;
  - Waste management;
  - Civil and military aviation and defence interests;
  - Coastal change;
  - Dust, odour, artificial light, smoke, steam;
  - Flood risk;
  - Land instability;
  - The historic environment;
  - Landscape and visual impacts;
  - Land use including open space, green infrastructure and Green Belt;
  - Noise and vibration;
  - Impacts on transport networks; and
  - Water quality and resources.

7.6.2 The detailed assessment of the generic impacts of the Scheme as set out in Section 5 of the NPS NN are contained in **Appendix A** of this document. The equivalent policies contained within the NPS for Ports have also been included in the assessment at **Appendix A**.

## 7.7 Marine Policy Statement and Marine Plan

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### Marine Policy Statement

- 7.7.1 The UK MPS<sup>61</sup> is the framework on which the making of Marine Plans, and the basis of decisions affecting the marine environment is established. The MPS was adopted for the purposes of Section 44 of the Marine and Coastal Access Act 2009<sup>62</sup>. Marine Plans set out how the MPS will be implemented in specific areas.
- 7.7.2 In deciding an application for which development consent is required, the SoS must have regard to both the MPS and Marine Plans, where applicable, under Section 104(2)(aa) of the Planning Act.
- 7.7.3 Paragraph 1.3.1 of the MPS confirms that the MPS and marine planning systems will “*sit alongside and interact*” with existing planning regimes, including, in England and Wales, the DCO regime (under the Planning Act).

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7.7.4 The purpose of the MPS is to facilitate and support the formulation of Marine Plans, ensuring the sustainable use of marine resources in line with the following high-level marine objectives, and will thereby:

- *“promote sustainable economic development;*
- *enable the UK’s move towards a low carbon economy, in order to mitigate the causes of climate change and ocean acidification and adapt to their effects;*
- *ensure a sustainable marine environment which promotes healthy, functioning marine ecosystems and protects marine habitats, species and our heritage assets; and*
- *contribute to the societal benefits of the marine area, including the sustainable use of marine resources to address local social and economic issues”.*

7.7.5 Chapter 2 of the MPS outlines the vision for the UK marine area, the high-level approach of marine planning and the general principles of decision making. The chapter recognises the relevance of the Marine Strategy Framework Directive and how marine planning is an important tool in recognising the Directive’s targets and measures. It also contains the detailed considerations that will need to be considered within individual Marine Plans, which include the following:

- Marine ecology and biodiversity;
- Air quality;
- Noise;
- Ecological and chemical water quality and resources;
- Seascape;
- Historic environment;
- Climate change adaptation and mitigation; and
- Coastal change and flooding.

7.7.6 An assessment against the provisions of the relevant Marine Plan is included later in this section of the Case for the Scheme.

7.7.7 Chapter 3 of the MPS sets out policy objectives for the main activities that take place in the marine environment, and include:

- Marine Protected Areas (MPA);
- Defence and national security;
- Energy production and infrastructure development;
- Ports and shipping;

- Marine aggregates;
- Marine dredging and disposal;
- Telecommunications cabling;
- Fisheries;
- Aquaculture;
- Surface water management and waste water treatment and disposal; and
- Tourism and recreation

**7.7.8** The Scheme constitutes infrastructure development. On this basis, and given the Principal Application Site is within a Marine Plan area (see below), it is considered that the objectives of the MPS are directly relevant to the Scheme.

**7.7.9** As set out in **Section 5.6** of this document, there is an evident connection between the delivery of the Scheme and the regeneration of Great Yarmouth. The new bridge provides a more direct route between the SRN and South Denes thus facilitating the continued economic growth of the Port and surrounding employment land as a hub for the offshore energy industry. In addition, the increased capacity and resilience provided by the new crossing would alleviate pressure on roads within the town centre and historic areas, creating opportunity to enhance the public realm and grow the town's economy.

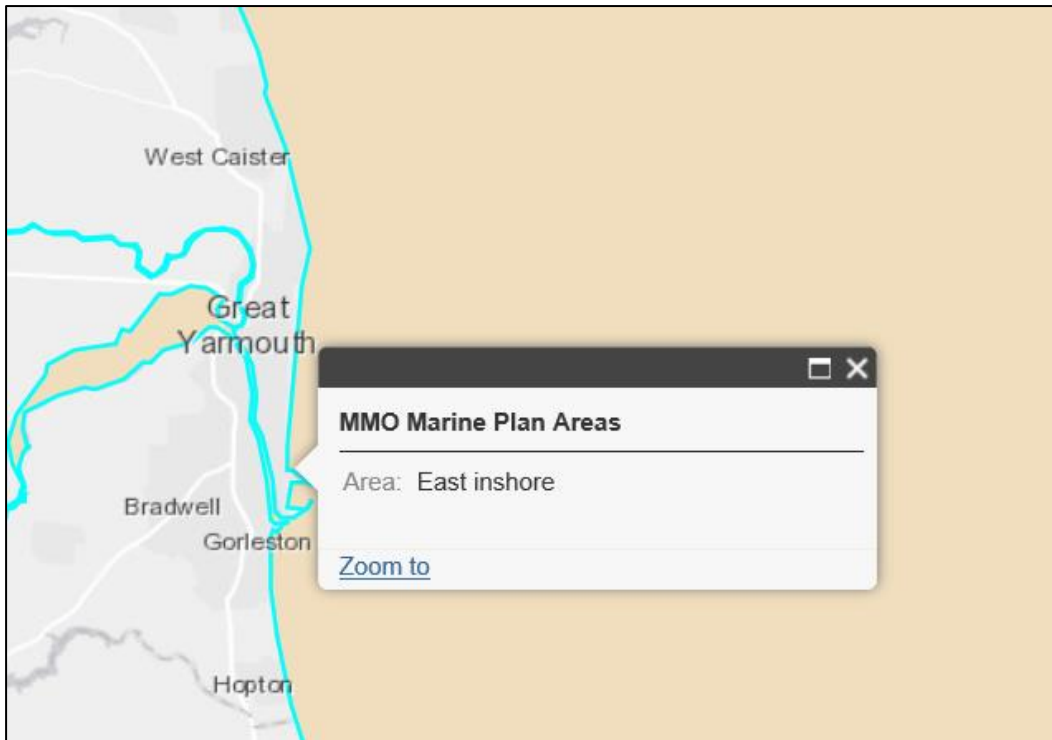
**7.7.10** One of the Scheme objectives is to protect and enhance the environment by reducing emissions of greenhouse gases and minimising the environmental impact of the Scheme. **Chapter 13** of the ES (DCO Document **6.1**) concludes that in terms of GHG emissions, albeit modest, there would be a slight beneficial impact during operation of the Scheme. As a result the Scheme does not conflict with the objective of the MPS to enable the UK's move towards a low carbon economy.

**7.7.11** The Outer Thames Estuary Special Protection Area (SPA) forms part of the MPA Network and includes the River Yare channel, which is within the Principal Application Site. As set out earlier in **Section 7.5**, the HRA concludes that the Scheme, alone or in combination with any other plan or proposal, would not affect the integrity of any European Site.

**7.7.12** **Table 9.10** in **Chapter 9** of the ES (Cultural Heritage) summarises the potential effects upon various cultural heritage features, including below ground assets that may be present within the river, which forms part of the Marine Plan area. Mitigation for effects upon any assets identified would be in the form of preservation in-situ or through preservation by record and is set out in an Archaeological Written Scheme of Investigation (WSI) (DCO Document **6.9**).

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- 7.7.13** In terms of societal benefits, the Scheme provides improved access from the SRN to employment areas within and surrounding the Port as well as improved access to the town's Seafront and associated tourism industry, as described in **Section 5.6**.
- 7.7.14** The MPS recognises the contribution of the marine environment in providing a secure, sustainable and affordable supply of low carbon energy supply for the UK and the importance of this in terms of economic prosperity and social wellbeing. Specifically, in paragraph 3.3.5, the MPS cites "*appropriately developed and placed ports and harbours to support construction and maintenance as well as other infrastructure such as roads*" as necessary on-shore infrastructure.
- 7.7.15** Non-defence activities in the marine area have the potential to impact the Ministry of Defence (MoD) elsewhere. As set out in the Consultation Report (DCO Document **5.1**) and **Appendix A** of this document, the MoD has been consulted as part of the statutory consultation and confirmed that the application site is outside of any Ministry of Defence safeguarding areas and as such the MoD has no safeguarding objections to the proposal. The East Inshore Marine Plan ("the EIMP") clarifies the intent of the MPS in the context of the defined area, taking into account its specific characteristics. An assessment of the Scheme's compliance in relation to the EIMP is provided below and accounts for the relevant MPS objectives not already considered.
- East Inshore Marine Plan and East Offshore Marine Plan (2014)**
- 7.7.16** Under section 51 of the Marine and Coastal Access Act 2009, a Marine Plan Authority may prepare a Marine Plan for an area consisting of the whole or any part of its marine planning region.
- 7.7.17** Section 58(3) of the Marine and Coastal Access Act 2009 requires that a public authority must have regard to the appropriate marine policy documents in taking any decision which relates to the exercise of any function capable of affecting the whole or any part of the UK marine area.
- 7.7.18** The East Inshore and East Offshore Marine Plan<sup>8</sup> (EIEOMP) was published simultaneously as one single document comprising both the East Inshore Marine Plan (EIMP) and East Offshore Marine Plan but they are separate Marine Plans.
- 7.7.19** The EIMP comprises a total area of 6,000 square kilometres, running the length of Britain's eastern coastline from Flamborough Head to Felixstowe and extending approximately 12 nautical miles to the seaward limit of the territorial sea. The EIMP also covers inland areas such as the Broads and other waters subject to tidal influence, such as the mouth of the River Yare (**Plate 7-1** below).

**7.7.20** An assessment against the relevant policies of the EIMP, which is the applicable Marine Plan for the Scheme, is set out below.



*Plate 7-1 East Inshore Marine Plan Area at Great Yarmouth and the River Yare (Source: <http://mis.marinemanagement.org.uk/east6>)*

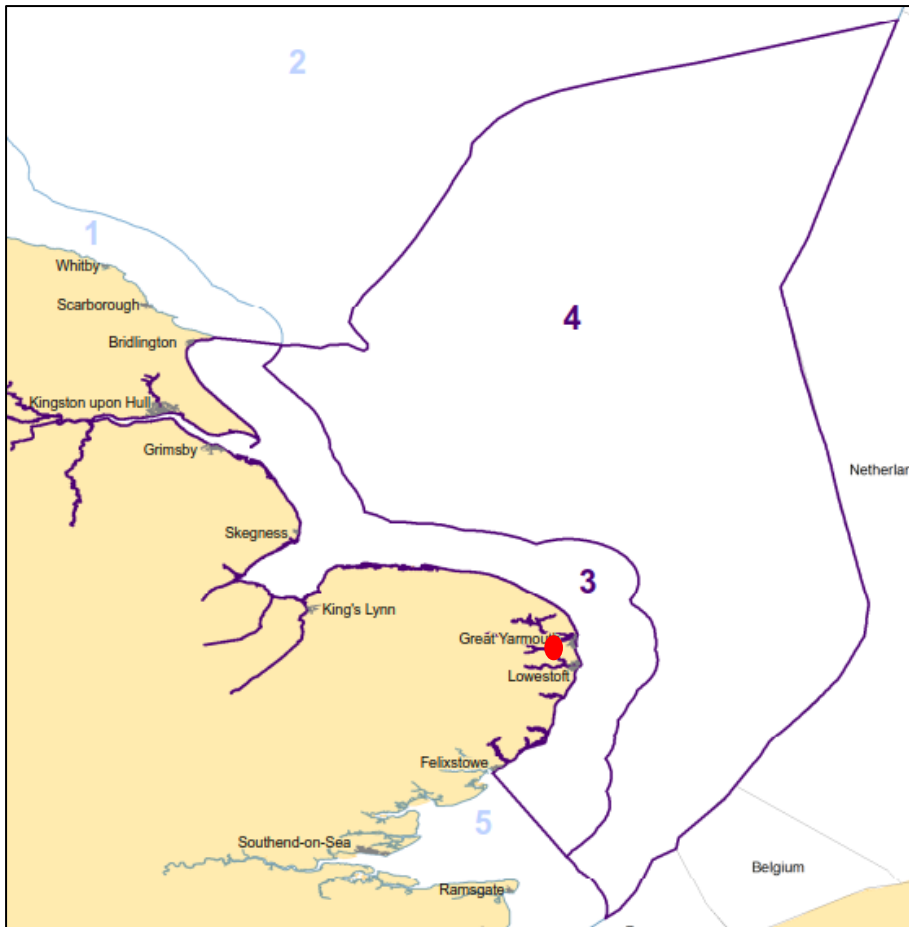


Plate 7-2 East Inshore (3) and Offshore (4) Plan Areas and Bordering Nations. Source HM Government East Inshore and East Offshore Marine Plans (2014)

**7.7.21** The vision for the Marine Plan area, as set out in the EIEOMP, is as follows: *“By 2034, sustainable, effective and efficient use of the East Inshore and East Offshore Marine Plan Areas has been achieved, leading to economic development while protecting and enhancing the marine and coastal environment, offering local communities new jobs, improved health and well-being. As a result of an integrated approach that respects other sectors and interests, the East marine plan areas are providing a significant contribution, particularly through offshore wind energy projects, to the energy generated in the United Kingdom and to targets on climate change”.*

**7.7.22** Objective 3 in the EIEOMP is to *“realise sustainably the potential of renewable energy, particularly offshore wind farms, which is likely to be the most significant transformational economic activity over the next 20 years in the East marine plan areas, helping to achieve the United Kingdom’s energy security and carbon reduction objectives”.* It is one of the stated objectives of the Scheme (i.e. to support Great Yarmouth as a centre for both offshore renewable energy and the offshore oil and gas industry, enabling the delivery of renewable energy NSIPs and enhancing the Port's role as an international

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gateway) to support the renewable energy sector. This support was recognised in the Direction made under Section 35 of the Planning Act.

**7.7.23** An assessment of the Scheme against the relevant policies set out in Section 3 of the EIEOMP is provided below.

#### **Economic**

**7.7.24** Policy EC1 supports development proposals “*that provide economic productivity benefits which are additional to Gross Value Added currently generated by existing activities*”.

**7.7.25** Policy EC2 states that “*proposals that provide additional employment benefits should be supported, particularly where these benefits have the potential to meet employment needs in localities close to the marine plan areas*”.

**7.7.26** The potential for employment and gross added value is addressed in **Section 5.6** of this document. This section references the conclusions of the Wider Impacts in Transport Appraisal (WITA) Technical Note which forms **Appendix F** to the EAR (DCO Document **7.2**). The WITA Technical Note details wider benefits likely to be accrued as a result of the Scheme due to agglomeration, output change in imperfectly competitive markets and tax revenues from both labour supply impacts and those arising from moves to more or less productive jobs. The WITA Technical Note calculates the total wider impact benefits for the scheme are £58.7m with agglomeration benefits accounting for £53.1m of this total, which is equivalent to 25% of TUBA user benefits. These benefits, which are included in the BCR calculations for the Scheme, will support local development and the regeneration of Great Yarmouth’s economy.

**7.7.27** **Chapter 14** (People and Communities) of the ES predicts that the Scheme would generate a total of 58 employee jobs per annum at the local level (Great Yarmouth) over the construction period. At a regional (Norfolk) level, Chapter 14 estimates the Scheme would generate a total of 59 employee jobs. Taking into account the level of unemployment in the area, it concludes that there is likely to be a direct, temporary, short-term, slight beneficial (not significant) effect on economic receptors at both the local and regional scale.

**7.7.28** Policy EC3 of the EIEOMP specifically supports proposals that contribute to offshore wind energy generation. Whilst the Scheme is not for energy infrastructure, **Sections 5.5** and **5.6** of this report make it clear that the improved connectivity and resilience resulting from the Scheme will support the delivery of existing and potential renewable energy developments in Great Yarmouth.



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## Social and Cultural

- 7.7.29** Policy SOC1 states that “*proposals that provide health and social well-being benefits including through maintaining, or enhancing, access to the coast and marine area should be supported*”.
- 7.7.30** The southern section of the South Denes peninsula is subject to severance due to the absence of a readily accessible east-west connection for traffic wishing to access the Port and surrounding areas. The Scheme will enhance connectivity to the Port and South Denes Enterprise Zone for all road users (private vehicles, cyclists and pedestrians) by reducing traffic flow on Haven Bridge by as much as 41% during the PM peak by 2023 compared to the DM scenario (as discussed in **Section 5.5**). The provision of the Scheme therefore provides enhanced accessibility to the marine area for these users.
- 7.7.31** The Scheme aims to minimise any negative impact on accessibility for marine users. A Scheme of Operation (**Schedule 10**) of the draft DCO (DCO Document **3.1**) has been drafted to ensure that openings to accommodate movements by commercial vessels will occur on demand, upon receipt of an opening request. According to the Scheme of Operation, openings to accommodate the passing of recreational vessels will be aimed to avoid 08.00 - 09.00 and 16.30 - 17.30. The Scheme of Operation has been developed in consultation with GYPC. The Applicant is aiming to agree a Statement of Common Ground (SoCG) with GYPC. Work on the SoCG is underway, and the Applicant envisages that the SoCG will be progressed and developed throughout the DCO examination period.
- 7.7.32** Policy SOC2 sets out that “*proposals that may affect heritage assets should demonstrate, in order of preference: (a) that they will not compromise or harm elements which contribute to the significance of a heritage asset; (b) how, if there is compromise or harm to a heritage asset, this will be minimised; (c) how, where compromise or harm to a heritage asset cannot be minimised it will be mitigated against or (d) the public benefits for proceeding with the proposal if it is not possible to minimise or mitigate compromise or harm to the heritage asset*”.
- 7.7.33** **Table 9-10** in **Chapter 9** of the ES summarises the potential effects upon various features, such as archaeological assets, built heritage assets, historic landscapes and paleoenvironmental assets and assesses their significance prior to and following the application of mitigation. Mitigation would be in the form of preservation in-situ or through preservation by record and is set out in a Written Scheme of Investigation (WSI) (DCO Document **6.9**).
- 7.7.34** In terms of impacts upon the setting of the Grade I listed Nelson’s Monument (NHLE 1246057) and Grade II Listed Gas Holder (NHLE 1096789) **Chapter 9** concludes that the Scheme would lead to less than substantial harm on the assets. A description of the wider public benefits delivered by the Scheme outweighing the less than substantial harm on the designated heritage assets,

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is provided in response to NPS NN paragraph 5.134 in **Appendix A** of this document.

**7.7.35** The impact of the Scheme upon the setting of the Camperdown, Hall Quay/South Quay and Gorleston Conservation Areas is considered in **Chapter 9** of the ES. It concludes that the value of the assets would not be impacted upon by the Scheme to the extent that significant effects would occur, either due to a limited change in the assets setting or due to the setting contributing minimally to the value of the asset.

**7.7.36** Policy OC3 seeks to protect the terrestrial and marine character of an area and should demonstrate “(a) that they will not adversely impact the terrestrial and marine character of an area (b) how, if there are adverse impacts on the terrestrial and marine character of an area, they will minimise them (c) how, where these adverse impact on the terrestrial and marine character of an area cannot be minimised they will be mitigated against and (d) the case for proceeding with the proposal if it is not possible to minimise or mitigate the adverse impacts”.

**7.7.37** **Chapter 10** of the ES provides an assessment of the likely significant effects of the Scheme on townscape character. The Scheme is considered to have no effects on seascape (and therefore the marine character) including on the Norfolk Coastal Waters Character Area and as such is scoped out of the assessment. **Chapter 10** concludes that there would be no significant effects on townscape during construction or operation. It also concludes there are no predicted effects on the landscape of The Broads (screened out of the assessment as insignificant in **paragraph 10.4.8**). Visual effects on the Broads are considered in viewpoints 17 and 18, which conclude a neutral (not significant) effect during construction and operation.

#### Tourism and Recreation

**7.7.38** Policy TR1 requires that: ‘proposals for development should demonstrate that during construction and operation, in order of preference:

- a) they will not adversely impact tourism and recreation activities
- b) how, if there are adverse impacts on tourism and recreation activities, they will minimise them
- c) how, if the adverse impacts cannot be minimised, they will be mitigated
- d) the case for proceeding with the proposal if it is not possible to minimise or mitigate the adverse impacts.

**7.7.39** Policy TR2 states that “proposals that require static objects in the East marine plan areas, should demonstrate, in order of preference:

- (a) that they will not adversely impact on recreational boating routes

*(b) how, if there are adverse impacts on recreational boating routes, they will minimise them*

*(c) how, if the adverse impacts cannot be minimised, they will be mitigated*

*(d) the case for proceeding with the proposal if it is not possible to minimise or mitigate the adverse impacts”.*

- 7.7.40** Policy TR3 supports development that delivers tourism and / or recreation-related benefits in communities adjacent to the Marine Plan area.
- 7.7.41** As set out in **Section 5.6**, the Scheme will deliver benefits to the Great Yarmouth tourism industry by improving connectivity between the town centre and seafront from the SRN and reducing congestion on existing routes.
- 7.7.42** **Chapter 14** of the ES (People and Communities) assesses the likely effects of the Scheme on tourism and recreation, including recreational boating routes. Construction activities would affect vessel movements along the River Yare within the locality of the Principal Application Site. In addition, consultation with the Great Yarmouth and Norfolk County Angling Association (GYNCAA) has confirmed that the club does not fish within the vicinity of the Principal Application Site but a number of anglers do fish in the harbour near the Principal Application Site. **Paragraph 2.7.1** of the OCoCP (DCO Document **6.16**) confirms that the Contractor should maintain the navigation channel at all times, except when possession of the entire channel or a restriction on navigation is required to facilitate construction (such as narrowing the vessel size that can pass through the area).
- 7.7.43** The Preliminary Navigational Risk Assessment (pNRA) (DCO Document **6.14**) anticipates the annual number of vessel passages through the new bridge to be 8,000, with just 10% of these related to recreational vessel movements. The ‘Existing and Future Navigation Requirements of Peel Ports Great Yarmouth and other Port Users’ report forms an appendix of the pNRA (**Appendix B**) and considers the movements of recreational vessels from within the Norfolk Broads to the North Sea, via the River Yare, and vice versa. The report indicates that the number of movements of the recreational vessels is limited and they are currently controlled due to the timings at which their passage through the port can occur. Opening arrangements for recreational vessels are included in the draft Scheme of Operation (**Schedule 10** of the draft DCO (DCO Document **3.1**) (see **paragraph 7.7.31** of this document for further details). In order for vessels to wait safely, the provision of vessel waiting facilities to the north and south of the new crossing are provided as part of the Scheme.
- 7.7.44** During operation, the Scheme could cause sediment and hydromorphological changes to the River Yare. Taking into account the findings of the Sediment Transport Assessment (ES **Appendix 11C**) (DCO Document **6.2**) Chapter 11

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of the ES concludes that dredging may be required during operation to remove any sediment build up within the navigation channel, however, that any operational dredging will be incorporated into the current dredging regime along the River Yare and is not expected to significantly alter the current dredging regime.

**7.7.45** Overall, impacts on tourism and recreational activities during construction and operation have been mitigated as far as possible in accordance with Policies TR1 and TR2.

#### Environment

**7.7.46** Policy ECO1 requires that “*cumulative impacts affecting the ecosystem of the East marine plans and adjacent areas (marine, terrestrial) should be addressed in decision-making and plan implementation*”.

**7.7.47** **Chapter 8** (Nature Conservation) of the ES (DCO Document **6.1**) reports on the outcomes of assessments in regard to biodiversity and nature conservation. **Chapter 19** of the ES assesses the potential cumulative effects of the Scheme due to interaction with other developments or as a result of the cumulation of intra-project effects. The assessment concludes that significant adverse cumulative effects interactions are not predicted in the construction or operation phases. Moderate adverse (significant) in-combination effects for Materials (waste) and for People and Communities receptors are predicted in the construction phase. The results for the operation phase concluded a moderate adverse (significant) in-combination effect for Water Environment (River Yare) and a moderate beneficial (significant) in-combination effect on People and Communities.

**7.7.48** Policies BIO1 and BIO2 require that appropriate weight should be attached to biodiversity and that, where appropriate, features that enhance biodiversity and geological interests should be incorporated.

**7.7.49** The HRA (DCO document **6.11**) documentation concludes that the Scheme, alone or in combination with any other plan or proposal, would not affect the integrity of any European Site.

**7.7.50** Following surveys, the benthic and fish community was identified as being of local value only in the vicinity of the Principal Application Site, and no significant effects from the Scheme on these features are predicted. The Principal Application Site was considered to be of local importance only to both foraging and roosting bats. The potential for a bat roost in several properties due for demolition could not equivocally be ruled out; however, these properties were all considered to have low potential. Nevertheless, emergence and re-entry surveys for bats at these properties are to take place prior to demolition in accordance with the measures included in **Section 5.3** of the OCoCP (DCO Document **6.16**). **Section 5.5** of the OCoCP incorporates

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measures to control the spread of Schedule 9 (of the Wildlife and Countryside Act 1981 (as amended) invasive non-native plant species.

**7.7.51** A water vole population was found to be present in the watercourses within the Principal Application Site. In addition, two to three territories of black redstart were identified. However, in both regards, subject to the implementation of appropriate mitigation signposted in **Table 3.3** of the Mitigation Schedule (DCO Document **6.13**) no significant effects would arise.

**7.7.52** It is recognised that opportunities to incorporate biodiversity net gains during the implementation of schemes should be exploited. For this reason the following enhancements will be implemented where appropriate during the delivery of the Scheme:

- Planting of native wetland plants, reeds, grasses, rushes and sedges along new channels;
- Removal of areas of dense woody vegetation on existing watercourses, to allow increased light to reach watercourses and thereby enable an increase in in-stream and marginal wetland plants; and
- Restoration of water channels; with deepening or alteration of bank profile where appropriate to maximise their suitability for water voles.

**7.7.53** Policy MPA1 requires that *“any impacts on the overall Marine Protected Area network must be taken account of in strategic level measures and assessments, with due regard given to any current agreed advice on an ecologically coherent network.”*

**7.7.54** The HRA for the Scheme (DCO Document **6.11**) includes an assessment of the potential for significant effects on the integrity of the Outer Thames Estuary SPA which falls within the Principal Application Site and is part of the MPA network. The HRA concludes that the Scheme, either on its own or in combination with any other plan or proposal, would not affect the integrity of any European Site.

### Climate Change

**7.7.55** Policy CC1 requires development proposals to take into account how they may themselves be impacted by climate change, and, how they may impact upon any climate change adaption measures elsewhere within their lifetime. The policy further requires that *“where detrimental impacts on climate change adaptation measures are identified, evidence should be provided as to how the proposal will reduce such impacts”*.

**7.7.56** Policy CC2 requires that proposals for development should *“minimise emissions of greenhouse gases as far as is appropriate”* and that *“mitigation measures will also be encouraged where emissions remain following minimising steps”*.

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**7.7.57** Paragraphs **7.5.53** to **7.5.56** of this document provide an assessment of the potential impacts of climate change upon the Scheme. **Table 13-23** in **Chapter 13** of the ES provides a summary adaptation measures incorporated in the design to reduce the vulnerability of the Scheme to the identified climate and weather-related risks.

**7.7.58** The Scheme's accordance with the National Adaptation Programme and the Third Strategy for Climate Adaptation Reporting<sup>63</sup> has been considered. Annex 2 of the document contains a 'Detailed actions log' which states key actions and milestones aimed at addressing specific climate change risks identified within the document. The Scheme would not conflict with the delivery of any of the actions listed, particularly those relating to Transport in Section 3.3. On this basis it is considered the development would not impact upon climate change adaptation measures elsewhere within its lifetime.

**7.7.59** **Chapter 13** of the ES predicts that GHG emissions from the construction of the Scheme would have a neutral impact and that there would be a slight beneficial impact during operation (in comparison with the "do nothing" scenario).

#### **Governance and Compatibility with Other Activities**

**7.7.60** Policy GOV1 states that "*appropriate provision should be made for infrastructure on land which supports activities in the marine area and vice versa*".

**7.7.61** As confirmed in the SoS's Section 35 Direction, the Scheme's NSIP status derives from the nationally significant role played by the Port in acting as a hub for the offshore wind, oil and gas industries. **Sections 4.3** and **4.4** of this Case for the Scheme provide an assessment of the need for the Scheme in delivering necessary transport improvements to enable the effective operation of the Port. They conclude that in a DM scenario existing issues in terms of congestion and delays on routes between the SRN and Port would worsen and may hamper the ability of the Port to successfully perform its nationally significant role.

**7.7.62** Paragraph 260 of the EIEOMP acknowledges that "*economic and social benefits of activities in the marine area only accrue when brought on land*" and paragraph 261 highlights the importance of promoting "*integration between marine and land use plans in the provision of adequate infrastructure, especially where that infrastructure will predominantly support activity in the other environment (i.e. marine or land)*". Both South Denes and Beacon Park accommodate businesses, such as Siemens, who have invested in the deep water Outer Harbour as their pre-assembly location for the installation of turbines for East Anglia ONE, for providing services and support to the offshore oil, gas and wind industries.

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- 7.7.63** The Scheme will capitalise on improvements elsewhere along the A47 to improve connectivity between the SRN and the Port. In addition, as set out in Section 5.6, the Scheme would lead to significantly reduced journey times between the two Great Yarmouth EZ sites bringing the opportunity for more efficient interaction between energy related businesses. The need for the Scheme is echoed by the Great Yarmouth Port Authority in their response to the statutory consultation: “Great Yarmouth Port Authority welcomes Norfolk County Council’s proposal to construct a third river crossing in Great Yarmouth. The new bridge offers the potential of significantly improved road access to the Port, and to the Outer Harbour in particular”.
- 7.7.64** In these terms it is considered that Policy GOV1 is supportive of the Scheme.
- 7.7.65** Policy GOV 2 requires opportunities for co-existence, in terms of competing marine activities, to be maximised wherever possible. The Vessel Simulation Report (**Appendix C** to DCO Document **6.14**), concludes that the Scheme would be unlikely to create an unacceptable level of hazard to navigation nor require the imposition of excessive restrictions on navigation within the Port of Great Yarmouth. This was the case even with vessels moored on the berths directly adjacent to the new bridge. The VSR concluded that the 50m navigation channel proposed for the Scheme is a sufficient width for the vessels accessing the Port.
- 7.7.66** Construction activities have the potential to affect vessel transport and Port operations. The navigable channel will remain open except for short term periods associated with specific construction activities, expected to be limited to no more than three closure occasions, with each lasting no more than 72 hours (it is acknowledged that the ES assesses a reasonable worst case scenario of 2 – 4 weeks during the construction). In these instances, sufficient prior notice will be provided, as outlined in both **Article 23** of the draft DCO (DCO Document **3.1**) and the draft protective provisions to be agreed with the Great Yarmouth Port Company, on behalf of the Great Yarmouth Port Authority. **Article 23** also allows for the ability to reduce the width of the navigable channel within the Order Limits during construction and operation, and to close the entire width of the channel in circumstances where there is no reasonable alternative (all requiring the consent of the GYPA).
- 7.7.67** There would be temporary and/or partial closures of the roads immediately surrounding the Scheme during construction which could have adverse effects on local businesses. Businesses would be informed of the nature, timing and duration of particular construction activities, diversion routes will be implemented where appropriate, as detailed in the OCoCP (DCO Document **6.16**).
- 7.7.68** Policy GOV 3 states that Proposals should demonstrate in order of preference:

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- *“a) that they will avoid displacement of other existing or authorised (but yet to be implemented) activities*
  - *b) how, if there are adverse impacts resulting in displacement by the proposal, they will minimise them*
  - *c) how, if the adverse impacts resulting in displacement by the proposal, cannot be minimised, they will be mitigated against or*
  - *d) the case for proceeding with the proposal if it is not possible to minimise or mitigate the adverse impacts of displacement”.*

**7.7.69** In setting the context around Policy GOV 3, the Marine Plan states that *“the Marine Policy Statement (3.8.10) has a particular focus on the impacts of displacement of fishing activity and the need to avoid this”* but also that *“Indirect impacts may include the increased level of competition for marine space from differing fishing fleets seeking to use the same area, with consequential impacts on local ports, tourism, the environment, or recreational users obliged to utilise an area of space that was previously only frequented by shipping”*.

**7.7.70** Policy PS1 requires that *“Proposals that require static sea surface infrastructure or that significantly reduce under-keel clearance should not be authorised in International Maritime Organization designated routes”*. Policy PS1 does not apply to the Scheme, given the River Yare is not an International Maritime Organization route.

**7.7.71** Policy PS2 requires that *“Proposals that require static sea surface infrastructure that encroaches upon important navigation routes (see figure 18) should not be authorised unless there are exceptional circumstances. Proposals should:*

- *a) be compatible with the need to maintain space for safe navigation, avoiding adverse economic impact;*
- *b) anticipate and provide for future safe navigational requirements where evidence and/or stakeholder input allows; and*
- *c) account for impacts upon navigation in-combination with other existing and proposed activities*

**7.7.72** The Vessel Simulation Report (VSR) (**Appendix C** to DCO Document **6.14**) details the commissioning, progression and outcome of a real-time vessel simulation exercise conducted to assess the navigation impacts of the Scheme, and advises that the minimum 50m navigation channel width is sufficient for vessels accessing the Port. The VSR considers vessels up to the limit of vessel size for entry to the river.

**7.7.73** Policy PS3 requires that *“proposals should demonstrate, in order of preference:*



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- *“a) that they will not interfere with current activity and future opportunity for expansion of ports and harbours;*
  - *(b) how, if the proposal may interfere with current activity and future opportunities for expansion, they will minimise this;*
  - *(c) how, if the interference cannot be minimised, it will be mitigated;*
  - *(d) the case for proceeding if it is not possible to minimise or mitigate the interference”.*

**7.7.74** The Applicant acknowledges the need to ensure the continued primacy of the harbour, in terms of current and future shipping activity. Although the Scheme would result in new areas within the river Port being upstream of a physical barrier, openings for any vessels except a recreational vessel will occur as and when required. The new bridge will be opened to allow the passage of any recreational vessel upon such notice and at such times as the Applicant reasonably determines. Mooring facilities are proposed on the western side of the river to allow recreational vessels to wait while the bridge is raised.

**7.7.75** The Scheme would result in the displacement of a small amount of land and quayside within the operational Port. Notwithstanding this, the Applicant has taken all reasonable steps to minimise impacts upon existing operations. The Scheme encompasses an underpass on the eastern bank of the river to provide a new private means of access for the benefit of owners and occupiers of adjoining land.

**7.7.76** The Applicant is in discussion with the Great Yarmouth Port Company, on behalf of Great Yarmouth Port Authority, to agree protective provisions to ensure the Port’s operational and commercial interests are maintained. The draft protective provisions are provided in draft DCO (DCO Document **3.1**). On this basis it is considered that adverse impacts relating to displacement would be suitably mitigated and that the Scheme would not constrain the future growth of the Port.

**7.7.77** Policy DD1 requires that proposals within or adjacent to licensed dredging and disposal areas should avoid, minimise or mitigate impacts on dredging and disposal activities.

**7.7.78** The section of river within the Order Limits is subject to navigational dredging. The Scheme will involve the introduction of new structures within the channel will influence where deposition occurs. The methodology and techniques used to dredge the river may also be impacted by the introduction of the crossing. For these reasons, protective provisions are included in **Schedule 14 Part 6** of the draft DCO (DCO Document **3.1**) relating to the Great Yarmouth Port Authority’s continued dredging of the river for navigational purposes.

**7.7.79** Policy FISH2 requires that development proposals demonstrate that they will avoid, minimise or mitigate adverse impacts on spawning and nursery areas and any associated habitat.

**7.7.80** Chapter 8 of the ES details the findings of the fish trawl survey and concludes that the benthic and fish community is of Local value only in the vicinity of the Principal Application Site. The assessment in the ES further predicts that impacts will be negligible, prior to the implementation of operational phase mitigation measures.

## **7.8 Marine licence**

**7.8.1** A marine licence would ordinarily be required to develop the Scheme within the River Yare.

**7.8.2** Under Section 42(1)(aa) of the Planning Act there is a statutory duty on applicants to consult the MMO on applications for development consent where the proposed development would affect, or would be likely to affect, any relevant areas as defined by 42(2). These areas include:

- Waters in or adjacent to England up to the seaward limits of the territorial sea;
- An exclusive economic zone, except any part of an exclusive economic zone in relation to which the Scottish Ministers have functions;
- A Renewable Energy Zone, except any part of a Renewable Energy Zone in relation to which the Scottish Ministers have functions;
- An area designated under Section 1(7) of the Continental Shelf Act 1964, except any part of that area which is within a part of an exclusive economic zone or Renewable Energy Zone in relation to which the Scottish Ministers have functions.

**7.8.3** It is considered that the Scheme, if development consent is obtained, will be located in "*waters in or adjacent to England up to the seaward limits of the territorial sea*".

**7.8.4** As such, the draft DCO (DCO Document **3.1**) includes provision for a Deemed Marine Licence (DML), referred to in **Article 56** of the draft DCO. The proposed DML wording is set out in **Schedule 13** of the draft DCO, which the MMO has been consulted on.

**7.8.5** The Consents and Agreements Position Statement (DCO Document **7.3**) advises that any further Marine Licences under the Marine and Coastal Access Act 2009, for example for the deposition of material excavated from the River Yare during construction of the bridge piers and knuckles, will require a separate marine licence to be sought. Similarly, any material

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generated through maintenance dredging would be disposed of at an appropriately licensed site.

## 7.9 The Infrastructure Planning (Decisions) Regulations 2010

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- 7.9.1** Regulations 3 to 7 of the of the Infrastructure Planning (Decisions) Regulations 2010 require that, where relevant, in deciding a DCO application the decision-maker must have due regard to:
- the desirability of preserving heritage features (scheduled monuments, listed buildings and Conservation Areas – Regulation 3);
  - whether the development causes or is likely to result in obstruction or danger to navigation and if so, the nature and extent of any such obstruction or danger to navigation where a DCO seeks to include deemed consent under Section 34 of the Coast Protection Act 1949 (Regulation 4);
  - the need to protect the marine environment, the living resources which it supports and human health and prevent interference with legitimate uses of the sea where a DCO seeks to include a deemed licence under Part 2 of the Environment Protection Act 1985 (Regulation 5);
  - (where hazardous substances are involved in the development) the impact on land to which the application relates, land in the vicinity, or planning permission/development consent relating to land in the vicinity (Regulation 6); and
  - the United Nations Environmental Programme Convention on Biological Diversity of 1992 (Regulation 7).
- 7.9.2** With regards to Regulation 3, an assessment of the impact of the Scheme upon heritage assets is included in **Chapter 9** of the ES (DCO Document **6.1**), the conclusions of which are summarised in **paragraphs 7.7.33 to 7.7.35** of this document and in **Appendix A**.
- 7.9.3** Regulations 4 and 5 are considered not to be applicable given the Scheme will not result in obstruction or danger to navigation and the DCO does not seek to include a deemed licence under Part 2 of the Environment Protection Act 1985 (Deposits in the Sea).
- 7.9.4** Regulation 6 is not applicable to the Scheme.
- 7.9.5** With regards to Regulation 7, the impact of the Scheme upon biodiversity, the marine environment and the living resources it supports has been considered in **Chapter 8** (Nature Conservation) and associated appendices of the ES (DCO Document **6.1 – 6.3**) and the HRA documentation (DCO Document **6.11**). The HRA documentation concludes that the Scheme, either on its own or in combination with any other plan or proposal, would not affect the integrity of any European Site. The assessment provided in **Chapter 8** of the ES has

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been prepared in accordance with the UK Biodiversity Framework from which the protection of sites, habitats and species is derived in England in response to the objectives first set out in the United Nations Environmental Programme Convention on Biological Diversity of 1992.

**7.9.6** In summary, the Scheme has paid due regard to the requirements of the Infrastructure Planning (Decisions) Regulations 2010 and conforms with the requirements therein.

## **7.10 Summary**

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**7.10.1 Section 7** of the Case for the Scheme has provided an assessment of the NPS NN and the NPS for Ports. It has also provided an assessment of the MPS, and the relevant Marine Plan. **Appendix A** has considered the NPS NN generic impacts outlined in section 5 of that document.

## 8 Other National and Local Policies

### 8.1 National Planning Policy Framework

- 8.1.1 The National Planning Policy Framework (NPPF)<sup>10</sup>, updated in February 2019, sets out Government’s planning policies for England as well as expectations in respect of planning applications. The policies within the NPPF are based on a “*presumption in favour of sustainable development*”, articulated through social, environmental and economic policies. To achieve sustainable development, it is recognised that plans and decisions need to take local circumstances into account.
- 8.1.2 Paragraph 5 of the NPPF makes it clear that it does not contain specific policies for NSIPs, stating: “*These are determined in accordance with the decision-making framework in the Planning Act (as amended) and relevant national policy statements for major infrastructure, as well as any other matters that are relevant (which may include the National Planning Policy Framework)*”.
- 8.1.3 Paragraph 1.17 of the NPS NN sets out how the NPS and the NPPF are consistent and have “*differing but equally important roles to play*”. The NPPF provides a framework for embedding the principles of sustainable development and is therefore an important and relevant consideration in decisions on NSIPs, but only to the extent that it is relevant to the project. This section of the Case for the Scheme therefore considers the Scheme against compliance with relevant policies within the NPPF. Where the NPS makes reference to NPPF policies, these are referenced in this section, and in **Appendix A** of this document.
- 8.1.4 In achieving sustainable development, paragraph 8 of the NPPF identifies three overarching and interdependent objectives which need to be pursued in mutually supportive ways:
- “*a) an economic objective – to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure*”.
- 8.1.5 The Scheme supports the ongoing development of the Port and Great Yarmouth as a centre for the offshore renewable energy, gas and oil industries, and meets other identified economic and regeneration needs, as discussed in **Section 5**.
- “*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*

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*meet the needs of present and future generations; and by fostering a well-designed and safe built environment, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being".*

8.1.6 The Scheme significantly improves east-west connectivity within Great Yarmouth and eases congestion on both the national and local road networks. In addition, community severance between disparate communities either side of the river is repaired by the new crossing, as set out in **Section 5.5**.

- *"c) **an environmental objective** – to contribute to protecting and enhancing our natural, built and historic environment; including making effective use of land, helping to improve biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy".*

8.1.7 The environmental impacts of the Scheme, and its contribution in terms of achieving the environmental objective, are assessed in the ES Volume I (DCO Document **6.1**) and HRA documentation (DCO Document **6.11**) with appropriate mitigation being signposted in the Mitigation Schedule (DCO Document **6.13**). As presented elsewhere in this document, the HRA documentation concludes that the Scheme, either on its own or in combination with any other plan or proposal, would not affect the integrity of any European Site. Paragraph 177 of the NPPF notes that *"the presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site"*.

8.1.8 Paragraph 10 states that at the heart of the NPPF is a presumption in favour of sustainable development and in the context of decision-taking, as set out in paragraph 11, this means that proposals in accordance with an up to date development plan should be approved without delay. **Section 8.2** and **8.3** explain how the Scheme is in accordance with both current and emerging development plan policies.

8.1.9 Paragraph 80 of the NPPF states that in order to build a strong, competitive economy *"planning policies and decisions should help create the conditions in which businesses can invest, expand and adapt. Significant weight should be placed on the need to support economic growth and productivity, taking into account both local business needs and wider opportunities for development. The approach taken should allow each area to build on its strengths, counter any weaknesses and address the challenges of the future"*. The Scheme supports the aspirations set out in this policy as it will enhance connectivity between the SRN and employment areas on the South Denes peninsula, including the Port and EZ thus creating the conditions to stimulate economic

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growth in the local area and wider sub-region, as set out in more detail in **Section 5.6**.

## 8.2 Local Planning Policy Framework

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8.2.1 The intention to develop a third crossing over the River Yare, has been a long-standing objective of NCC, due to the benefits it would bring in unlocking the potential for growth within the Port and surrounding employment areas, whilst easing congestion in the town centre. The Norfolk Local Transport Plan outlines the intention to develop a third crossing over the River Yare and subsequent local planning policy, most recently reflected in the GY Core Strategy, endorses the implementation of the Scheme. Paragraph 4.16.3 of the Core Strategy states: *“To help ease congestion, the Council with its partner organisations and the local transport operators are pursuing a range of different options, including... Supporting the development of a Third River Crossing to reduce congestion within the heritage area of North Quay and South Quay, reducing pressure on Haven Bridge and generally improving access across the River Yare and to help the Outer Harbour realise its long-term potential”*.

8.2.2 The Scheme is wholly located within the jurisdiction of GYBC, in the county of Norfolk. The relevant Development Plan for the area comprises:

- GY Core Strategy and associated Local Policy Maps (“the GY Core Strategy”);
- 2001 Great Yarmouth Borough-Wide Local Plan Saved Policies<sup>64</sup>; and
- NCC’s Core Strategy and Minerals and Waste Development Management Policies Development Plan Document 2010-2026<sup>65</sup>;

8.2.3 In accordance with their Local Development Scheme 2018-2021<sup>66</sup>, GYBC intends to undertake preparation of the following plan documents during the period 2018 to 2021 (“the emerging Local Plan documents”):

- The Local Plan (2013-2030) Part 2: Detailed Policies and Site Allocations Development Plan Document (see Section 8.3 for details on current progress towards adoption); and (once that is complete);
- A replacement Local Plan (2021-2036) Development Plan Document;
- Hall Quay Supplementary Planning Document;
- The Conge Supplementary Planning Document;
- King Street Area Supplementary Planning Document;
- Connecting Norfolk: The Norfolk Local Transport Plan for 2026 (April 2011)

8.2.4 Other local strategy documents relevant to the Scheme include:

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- Norfolk and Suffolk Economic Strategy (2017);
  - Great Yarmouth Borough Infrastructure Plan (2014);
  - The Great Yarmouth Economic Growth Strategy (2016-21); and
  - GY Regeneration Framework and Masterplan.

### **8.3 Alignment and conformity with the adopted and emerging elements of the Great Yarmouth Development Plan**

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**8.3.1** The GY Core Strategy is the main document in GYBC's new style Local Plan and sets out the spatial vision and objectives for future development in the Borough. It lays the foundations upon which future Local Plan Documents, Supplementary Planning Documents and Neighbourhood Development Plans are to be prepared.

**8.3.2** Consultation on the First Draft Local Plan Part 2: Development Management Policies, Site Allocations and Revised Housing Target<sup>12</sup> ("the Draft Local Plan Part 2") ran between Monday 20<sup>th</sup> August and Sunday 30<sup>th</sup> September 2018 and GYBC are in the process of preparing the Proposed Draft Local Plan Part 2 for public consultation, expected in early summer 2019.

**8.3.3** Paragraph 48 of the NPPF states that "*Local planning authorities may give weight to relevant policies in emerging plans according to:*

- *a) the stage of preparation of the emerging plan (the more advanced its preparation, the greater the weight that may be given);*
- *b) the extent to which there are unresolved objections to relevant policies (the less significant the unresolved objections, the greater the weight that may be given); and*
- *c) the degree of consistency of the relevant policies in the emerging plan to this Framework (the closer the policies in the emerging plan to the policies in the Framework, the greater the weight that may be given)".*

**8.3.4** On this basis the Scheme is also assessed against the relevant policies included in the emerging Local Plan Part 2, whilst acknowledging it is still at a relatively early stage of preparation and also noting that the NPS NN is the primary planning framework against which the Scheme needs to be assessed.

#### **Vision for the Borough**

**8.3.5** Part 3.1 of the GY Core Strategy sets out the overarching vision for the Borough. The most prominent message being that, "*by 2030, the Borough of Great Yarmouth will be a more attractive and aspirational place to live, work and play, with strong links to Lowestoft, the Broads, Norwich, rural Norfolk*



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*and the wider New Anglia (Norfolk and Suffolk) Local Enterprise Partnership area”.*

- 8.3.6** A target of 7,140 new homes within the plan period is included, and it is envisaged that these will be centred around Great Yarmouth and Gorleston-on-Sea in order to take advantage of existing accessibility via public transport.
- 8.3.7** The aspiration in terms of economic development is that the Borough plays to its strengths and resources with the expansion of the energy sector and port industries being central to the strategy. The tourism sector is also identified as having a key role to play.
- 8.3.8** At paragraph 3.1.5 there is a desire for ‘at risk’ heritage assets to be brought back into a beneficial and appropriate state of use and for the open space network to be improved by green infrastructure and network corridors.
- 8.3.9** Paragraph 3.16 envisages frequent and quality bus services being integrated with the rail network and travel through the borough becoming easier and more attractive to walkers and cyclists, especially for short trips.
- 8.3.10** Paragraphs 3.1.7 and 3.1.8 expect regeneration within both Great Yarmouth and Lowestoft to deliver an economic boost to the sub-region with the completion of the first three neighbourhood areas at Bure Harbour Quay, North Quay and Runham Vauxhall being a catalyst for further regeneration in the Waterfront area.
- 8.3.11** The vision for Great Yarmouth includes the development of the Scheme, stating at paragraph 3.1.9, “*A Third River Crossing over the River Yare is envisioned, along with improvements to public transport and the creation of attractive walking and cycling routes from the train station to the waterfront, town centre and seafront, which will relieve congestion and provide essential links to key facilities and services, including the outer harbour*”.
- 8.3.12** Section 3.2 of the GY Core Strategy outlines seven strategic objectives, which include Policy S07: Securing the delivery of key infrastructure. Policy S07 specifically includes reference to the Scheme, stating that “*Encouraging efficient patterns of movement by recognising the strategic role that the A47, a Third River Crossing, the river port, outer harbour and rail corridor (including a rail freight interchange) will play in meeting the borough’s needs*”. This reference serves to highlight the degree of support afforded to the Scheme within the GY Core Strategy.
- 8.3.13** The Scheme’s conformity with specific elements of the Development Plan is set out in the sections that follow.

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## Transport Opportunities

- 8.3.14** The Third River Crossing is identified in Strategic Objective SO7 of the GY Core Strategy, which seeks to *“encourage efficient patterns of movement by recognising the strategic role that the A47, a Third River Crossing, the river port, outer harbour and rail corridor (including a rail freight interchange) will play in meeting the borough’s needs”*.
- 8.3.15** This Strategic Objective is supported further in Policy CS16, which aims to encourage well defined places by supporting proposals for the Third River Crossing, which appropriately balances the need of road and river traffic and continuing protection of the route alignment.
- 8.3.16** At the time of the GY Core Strategy’s adoption, the crossing’s route alignment had been confirmed. Paragraph 4.16.3 is supportive of the Scheme based on the beneficial effects it will have in reducing congestion: *“To help ease congestion, the Council with its partner organisations and the local transport operators are pursuing a range of different options, including: Supporting the development of a Third River Crossing to reduce congestion within the heritage area of North Quay and South Quay, reducing pressure on Haven Bridge and generally improving access across the River Yare and to help the Outer Harbour realise its long-term potential. This scheme is supported in principle by the New Anglia Local Enterprise Partnership in their emerging New Anglia Plan for Growth and features in the Norfolk & Suffolk Local Transport Body’s list of top priority schemes. Norfolk County Council have adopted a preferred route alignment for a third river crossing south of the existing bridges; this route will continue to be safeguarded by Great Yarmouth Borough Council and Norfolk County Council”*.
- 8.3.17** Part a) of Policy CS16 further goes on to require that development should seek to improve accessibility to education, health, recreation, leisure and shopping facilities by enhancing linkages and creating a coherent network of footpaths and cycleways.
- 8.3.18** As is demonstrated in **Section 5.5** of this document, the Scheme contributes to the improvement of pedestrian and cycle connectivity through Great Yarmouth. High quality provision and crossing points have been incorporated into the Scheme to encourage these methods of access.
- 8.3.19** Saved Policy EMP25 in the Great Yarmouth Borough Wide Local Plan (2001) encourages proposals which lead to the creation of new roads and/or the rationalisation of the highway network within the Port area. The Scheme would create a more direct to the Port area from the SRN and thus is consistent with the Saved Policy EM25’s aspiration to create new roads and rationalise the road network within the area.
- 8.3.20** Three of the proposed VMS locations, on Hall Quay, Fullers Hill and Yarmouth Way, are within the ‘Car Park Policy area’, which relates to saved

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Policy TCM20 of the Great Yarmouth Borough Wide Local Plan (2001). The Policy seeks to improve public parking provision within the urban area by identifying off-street car parks / park and ride site(s) to serve the central and seafront areas. The 'Car Park Policy area' shown in the GY Core Strategy Proposals Map is broad and is intended to guide investigations into improvements in public parking provision, rather than prohibiting alternative development in the area. To the Applicant's knowledge, and informed by their role as Highway Authority, there are no proposals for public parking provision at the Hall Quay, Fullers Hill or Yarmouth Way VMS locations. On this basis it is considered that the Scheme does not conflict with Policy TCM20.

### Housing

- 8.3.21** To achieve the objective of sustainable growth, as set out in Policy CS1, a hierarchy of residential distribution is set out in Policy CS2, which directs 35% of the 7,140 homes proposed in Policy CS3 (proposed to be reduced to 5,139 homes in the emerging Local Plan Part 2) to the main towns of Gorleston and Great Yarmouth. The development of the Great Yarmouth Waterfront Area is identified as being key to the delivery of the Borough's housing target, with 1,000 new dwellings proposed, 350 of which are expected to be delivered within the plan period. The Scheme's anticipated impact upon the regeneration ambitions of the Waterfront Area is set out in **paragraphs 8.3.35 to 8.3.38** of this document.
- 8.3.22** In addition to the identification of two strategic sites at the Waterfront and Beacon Park, Policy CS3 states that the housing target will be met through the allocation of sufficient sites in the emerging Draft Local Plan Part 2. The first Draft Site Allocations Document does not allocate any housing sites within the Order Limits.
- 8.3.23** The amount of new housing proposed over the plan period will increase demand on the existing road network. The TA models increased demand created by committed developments by the expected opening year (2023) both with and without the Scheme in place. As detailed in **Section 5.5**, the Scheme would free up capacity on the local highway network thus helping to mitigate for the potential impacts caused by increased demand from projected housing growth over the plan period.

### Economic Development

- 8.3.24** Policy CS6 (Supporting the Local Economy) recognises that although "*the Borough of Great Yarmouth has a diverse economy it is the main base in England for the offshore energy industry and has a thriving seasonal visitor economy. To ensure that the conditions are right for new and existing businesses to thrive and grow, there is a need to continue to strengthen the local economy and make it less seasonally dependant*".

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- 8.3.25 The policy goes on to identify how this objective is achieved. Part a) encourages the redevelopment and intensification of existing employment sites, particularly where there is good access to transport modes.
- 8.3.26 Supporting paragraph 4.6.2 highlights the importance of Great Yarmouth and Lowestoft as two of the six centres for Offshore Engineering (CORE) whilst paragraph 4.6.3 also recognises Port is also of strategic importance as an export hub for the region, handling significant volumes of grain, fertiliser, aggregates and timber.
- 8.3.27 To enable the delivery of the Borough's economic development objectives, a number of sites safeguarded for employment use are identified in part b) and Table 1 of the policy. The largest safeguarded employment area within the borough is South Denes (including the harbour and South Quay) covering a total area of 117.54 hectares. The Order Limits fall partially within the safeguarded area, but rather than prohibit or stifle economic development within it, the Scheme would unlock the growth potential of the site, as set out in **Section 5.6**.
- 8.3.28 Part d) of Policy CS6 outlines the potential for 22 hectares of land reclamation to the north of the harbour at South Denes. Paragraphs 4.6.11 and 4.6.12 sets out the long-term potential offered in terms of providing "*additional land with access to deep water (which) could provide up to 42 hectares of new employment land*". The identification of a surplus of land is considered essential to ensure the borough can accommodate any potential growth in the energy sectors, in line with supporting the policy objective for job growth.
- 8.3.29 Parts e) and f) of the policy state that the local economy objectives should support Port-related development at the Outer Harbour whilst also encouraging a greater presence of high value technology and energy based industries. The importance of supporting the local visitor and retail economies in accordance with Policies CS7 and CS8 is also identified in part g).
- 8.3.30 The Scheme will create a more direct access between the SRN and southern portion of the peninsula and thus, for the same reasons set out in **Sections 5.5 and 5.6**, would be of benefit to any current and long term development aspirations for land reclamation to the north of the harbour versus a DM scenario. In addition, the Scheme would enhance connectivity between the town's two EZ sites encouraging greater synergy amongst the town's high value technology and energy based industries. Finally, as described in **Sections 5.5 and 5.6**, the redirection of Port-related traffic away from the town centre would also be of benefit to the local visitor and retail economies due to reduced congestion and opportunities for regeneration it would bring. Policy CS6 is therefore supportive of the implementation of the Scheme.
- 8.3.31 Policy CS7 (Strengthening our centres) sets out a retail hierarchy in which development and investment is to be focused during the plan period. Great

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Yarmouth is identified at the top of the hierarchy as the main town centre and its growth is to be promoted by the extension of Great Yarmouth's centre to include parts of North Quay as a mixed-use development scheme. As stated previously in this Section and under the regeneration case in **Section 5.6**, the Scheme will play an important role in the future development of North Quay by improving its immediate setting by reducing congestion levels over the Haven Bridge.

- 8.3.32** The decline of the town centre over the last number of years is described in **Section 4.4** of this document. In Great Yarmouth the national trend of declining town centre shopping practices has been exacerbated by the growth in popularity for more accessible out of town shopping due to the perceived inaccessibility of the town centre. In addition, the 2012 Retail Study also identified that the level of empty units was higher than the national average. The Scheme is supportive of the primary objective in CS7 in that it will enhance the town centre's connectivity whilst also reducing congestion within it, thus challenging the notion that the town is inaccessible to shoppers and visitors.
- 8.3.33** The need to promote tourism, leisure and culture is identified in Policy CS8. The tourism and leisure industry is vital to the Great Yarmouth economy with spend being estimated at £577m in 2014 alone<sup>45</sup>. The Scheme is considered to uphold the policy objectives of Policy CS8 and support economic development in the Borough by improving accessibility to local businesses and facilities and encouraging future investment by reducing the negative effects of traffic, such as congestion, severance and the associated negative perception of the public realm.
- 8.3.34** Policy CS17 (Regenerating Great Yarmouth's Waterfront) highlights the importance of Great Yarmouth's Waterfront Area.
- 8.3.35** The Waterfront Area was refined in size in 2010 following, among other reasons, the preferred route for the third river crossing being identified. The Waterfront Area comprises approximately 40 hectares of predominantly brownfield waterfront land, as shown in **Plate 8-1**. The Policy's main objective is to create an attractive location for housing, shopping and offices that is attractive to visitors, investors and existing residents.



*Plate 8-1 Great Yarmouth's Waterfront Area*

**8.3.36** Although emerging Great Yarmouth Waterfront AAP documents were drafted in 2007 and 2010, they are yet to be adopted as Supplementary Planning Documents. Policy CS17 supersedes the draft AAPs and until such time that a Supplementary Planning Document for the area is adopted, which is an ambition of Policy CS17, proposals relating to the development of individual buildings and/or sites within the Waterfront Area must demonstrate conformity with it. The ambitious growth expectations for the area (although it is

acknowledged that not all are intended to be within the current plan period) includes the identification of sites for:

- 1,000 new dwellings of a mix of types (at least 300, or 350 according to Policy CS3, to be delivered in the plan period);
- 16,500m<sup>2</sup> of employment space (7,700m<sup>2</sup> anticipated to be delivered in the plan period); and
- 14,200m<sup>2</sup> of retail and leisure floorspace (5,050m<sup>2</sup> of which is anticipated to be delivered in the Plan period).

**8.3.37** Supporting paragraph 5.1.2 recognises the importance of future development in providing improved linkages between the town centre and the waterfront and states that “*The overall approach to the future development and regeneration of the Waterfront area is to facilitate the comprehensive regeneration of Great Yarmouth’s historic quaysides in the heart of the town and provide improved linkages between the town centre and its riverfront, which for many years has been subject to industrial decline and under-utilisation. The overall development aspiration for the area is to create a series of vibrant, mixed-use urban neighbourhoods that meet the needs of existing and future residents, with easy access to jobs, community facilities and public transport services, thus reducing the need for the private car and creating a more sustainable environment*”.

**8.3.38** The Scheme will reduce demand and associated congestion on the local highway network on key links surrounding the Waterfront area, particularly on the western side of the river, as set out in **Section 5.5**, creating better conditions for both new development and the redevelopment of existing assets within the strategic site in accordance with the Policy CS17. As such, implementation of the Scheme does not conflict with the aspirations of Policy CS17.

**8.3.39** Saved policies EMP25 (Creation / rationalisation of roads within the port operational area), EMP26 (Future rail link to the port), EMP30 (Development on port operational land) and EMP32 (Bollard Quay) in the Great Yarmouth Borough Wide Local Plan (2001) relate to development proposals within the existing operational port.

**8.3.40** Land required to deliver the Scheme is safeguarded within the adopted Core Strategy Proposals Map (Policy CS16), as shown in **Plate 8-2**, which also overlays the Order Limits to clearly show the general conformance of the Scheme with the Local Plan allocation, albeit the Local Plan application simply safeguards the general corridor of the crossing rather than encompassing all necessary works described in **Sections 2.1.3** and **2.1.4**. The Local Plan allocation is proposed to be revised slightly in the Draft Local Plan Part 2 in order to more comprehensively reflect the land take required for the Scheme, as shown in **Plate 8-3**. The Policy to which the allocation applies remains as

CS16. In safeguarding the land with the adopted Core Strategy, the Local Planning Authority and Examiner had due regard to the impact upon port-related activity.



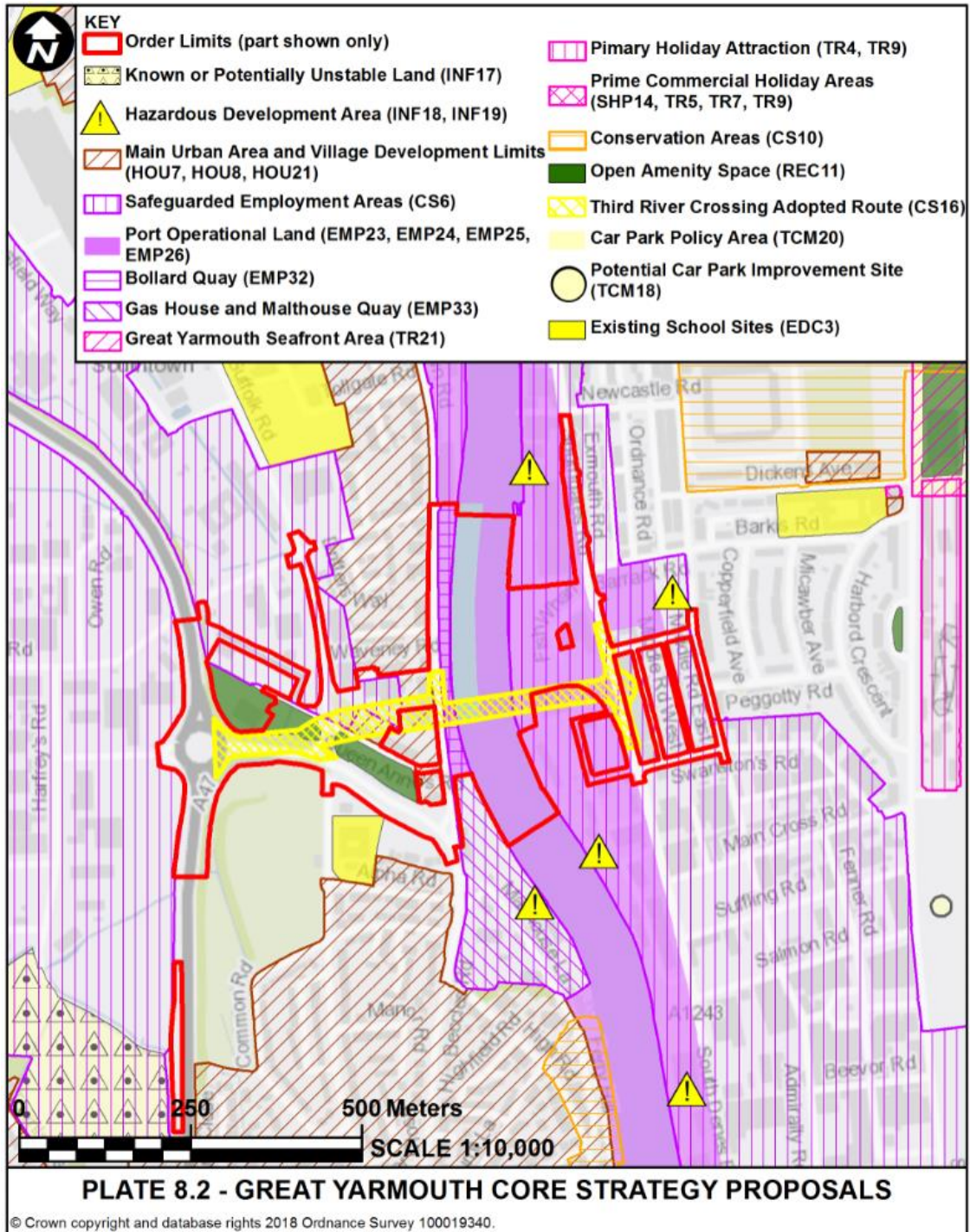
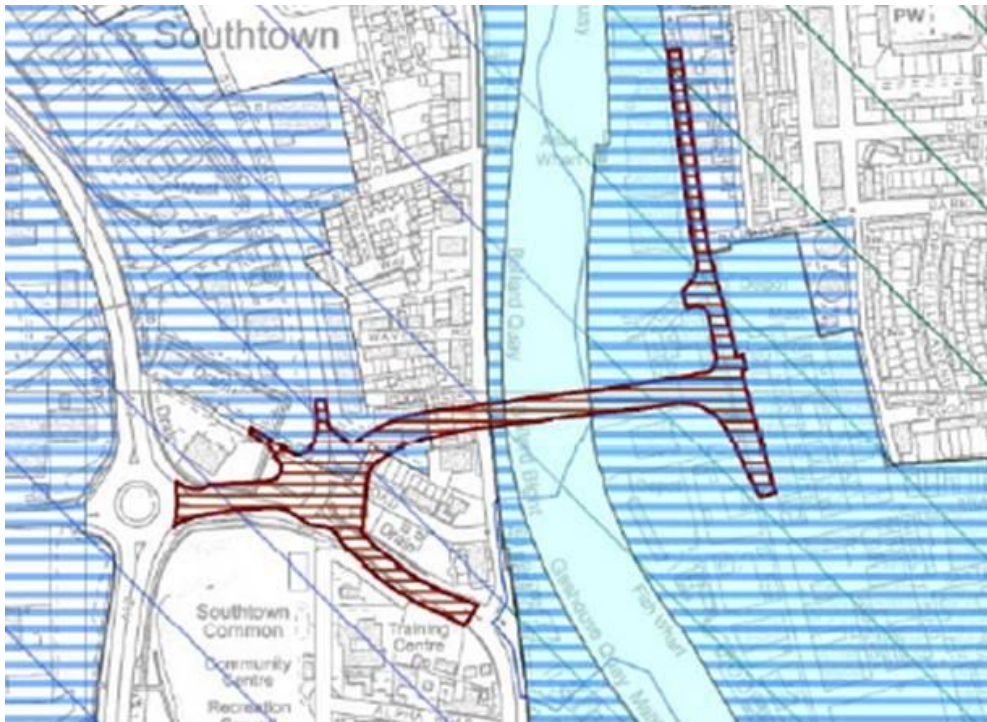


Plate 8-2 - Land safeguarded for Third River Crossing within adopted GY Core Strategy



*Plate 8-3 Land safeguarded for Third River Crossing within emerging Local Plan Part 2*

**Design, heritage, amenity and sustainability**

**8.3.41** Policy CS1 of the GY Core Strategy translates the concept of sustainable development into six tangible priorities necessary for the town to realise its vision, which are:

- *“a) Sustainable growth, ensuring that new development is of a scale and in a location that complements the character and supports the function of individual settlements;*
- *b) Mixed adaptable neighbourhoods, which provide choices and effectively meet the needs and aspirations of the local community;*
- *c) Environmentally friendly neighbourhoods that are located and designed to help address and where possible mitigate the effects of climate change and minimise the risk of flooding;*
- *d) A thriving local economy, flourishing local centres, sustainable tourism and an active port;*
- *e) Safe, accessible places that promote healthy lifestyles and provide easy access for everyone to jobs, shops and community facilities by walking, cycling and public transport; and*
- *f) Distinctive places that embrace innovative, high quality urban design that reflects positive local characteristics and protects the borough’s biodiversity,*

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*unique landscapes, built character and historic environment”.*

**8.3.42** Other than proposing a reduction in the Core Strategy housing target, the emerging Local Plan Part 2 provides detailed policies which seek to assist the delivery of the broad distribution and type of development set out in the Core Strategy rather than seeking to alter the vision.

**8.3.43** Policy CS9 of the GY Core Strategy requires that all new development within the Borough;

- *“responds to the distinctive natural, built and historic characteristics and promotes a positive relationship between existing and proposed buildings;*
- *provide safe access and convenient routes for pedestrians, cyclists, public transport users and disabled people;*
- *protects residential amenity;*
- *conserves and enhances biodiversity, landscape features and townscape quality;*
- *minimises GHG emissions and the risk of flooding; and*
- *fulfils the day-to-day social, technological and economic needs of residents, visitors and businesses”.*

**8.3.44** The Scheme not only embodies the vision for a sustainable Great Yarmouth, but also comprises a critical piece of infrastructure key to unlocking a number of the objectives within the Core Strategy. **Section 5** of this document sets out how the Scheme would facilitate the delivery of a sustainable future for Great Yarmouth both as a hub for the support of the offshore oil, gas and renewable energy industries and also as an attractive tourist destination. The creation of a direct access from the SRN to the south of the peninsula encourages investment within this area but also reduces congestion within the town centre thus benefitting retail and tourism situated there and on the seafront. As discussed in greater detail in **paragraphs 8.3.35 - 8.3.38**, the Scheme would also assist in realising the aspirations set out in Policy CS17 to regenerate the Waterfront area of the town.

**8.3.45** As set out in **Section 5.5** of this document, the Scheme will reduce community severance by providing a direct, safe and secure route to the southern part of the peninsula by NMUs. It also enhances connections with the existing surroundings through the public realm and planted areas on the western approach and at Bollard Quay, as shown in **Figures 6.5 and 6.6** of the Design Report (DCO Document **7.4**), offering amenity benefit and routes for pedestrians and cyclists. In addition, the Design Report highlights that, during analyses undertaken as part of the design, the southbound bus stop on Southtown Road would benefit from improvement. As part of the Scheme the bus stop would be relocated, allowing space for a safer waiting/alighting area to be provided.

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- 8.3.46** The DR considers that the design “compliments its surroundings visually and is ‘honest’ in its form by presenting its function through its appearance...The form of the crossing is a celebration of the simplicity of its engineering function and the bascule bridge (meaning ‘see-saw’ in French)”. It goes on to describe how the Scheme design responds to the distinctive natural, built and historic characteristics of its setting and explains how it promotes a positive relationship between existing and proposed buildings. For example, the DR explains that, before the Scheme design was selected, a number of locations were considered for the control tower, based on factors including visual impact and ensuring the privacy of local residents is retained. Careful consideration has been given to the design of the control tower, to ensure it is sympathetic to its surroundings and provides a positive contribution to the site visually. The Scheme design adheres to the criteria for ‘Good Design’ for National Network Infrastructure set out in the NPS NN, as set out in the **Table 1** of the DR (DCO Document **7.4**). Notwithstanding this, it is acknowledged that the control tower, and other structures, have not yet been subject to detailed design and as such a document titled ‘Approach to detailed design’ is included as **Appendix A** to the DR. The guidance set out in Appendix A provides assurance of the design quality that they implemented Scheme would achieve.
- 8.3.47** The Scheme’s impact upon biodiversity is assessed in **Chapter 8** of the ES (DCO Document **6.1**) and the HRA (DCO Document **6.11**) and summarised elsewhere in this report. Subject to the implementation of appropriate mitigation, set out in **Table 3.3** of the Mitigation Schedule (DCO Document **6.13**), the Scheme, alone or in combination with any other plan or proposal, would not affect the integrity of any European Site. In accordance with Policy CS11 (Enhancing the natural environment) the assessments were scoped and undertaken in consultation with partner agencies including Natural England, the Environment Agency, the MMO, Natural England and NCC, as set out in **Table 8-4** of the ES. **Table 3.3** of the Mitigation Schedule also includes details of a number of enhancements that will be implemented during the delivery of the Scheme, such as the planting of native wetland plants, reeds, grasses, rushes and sedges along new channels wherever appropriate.
- 8.3.48** As summarised in **paragraph 7.5.39** of this document, **Chapter 10** of the ES provides the findings of a Townscape and Visual Impact Assessment which concludes that there would be no significant effects on townscape during construction or operation of the Scheme.
- 8.3.49** In terms of GHG emissions, **Chapter 13** of the ES (DCO Document **6.1**) concludes that, although modest, there would be a slight beneficial impact during operation of the Scheme. The impact of the Scheme on risk of flooding is set out in **paragraphs 8.3.64** to **8.3.67** below.

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- 8.3.50** The Scheme seeks to fulfil the technological needs of residents, visitors and businesses where appropriate. For example, VMS at key locations on the highway network form part of the Scheme. The intention of the VMS is to inform road users about planned bridge openings in order to allow them to plan alternative routes, thus assisting with the general flow of traffic on the network. As described in **Section 5.6**, the Scheme also provides a new link between the two halves of Great Yarmouth, allowing the town's population to access employment, social and recreational resources more easily.
- 8.3.51** In summary, the Scheme would conform with Policies CS1 and CS9. Its design is sympathetic to existing built development whilst its impact on the natural and historic environment has been considered and mitigation embedded in design and included in the OCoCP (DCO Document **6.16**) and Mitigation Schedule (DCO Document **6.13**). The Scheme provides new safe and convenient access routes for pedestrians, cyclists, public transport users and disabled people, and has been guided by the need to protect residential amenity as far as possible and includes measures which seek to do so in the OCoCP (DCO Document **6.16**). During operation, the Scheme would result in a slight beneficial impact in terms of GHG emissions. Flood risk has been considered and mitigation measures, both embedded in design and included in **Table 3.7** of the Mitigation Schedule, to minimise risks as far as practical, are incorporated. Measures included within the Mitigation Schedule include the provision of a Surface Water Drainage Strategy and Emergency Preparedness Plan, which also forms requirements in **Schedule 2** of the draft DCO (DCO Document **3.1**).
- 8.3.52** With regard to heritage assets, Policy CS10 seeks to preserve the Borough's assets and their settings, and states that GYBC will work with other agencies, such as Historic England, to promote the conservation, enhancement and enjoyment of the historic environment.
- 8.3.53** Saved Policy BNV2 requires that proposed development that effects "*areas of known archaeological significance*" or "*potential archaeological significance*" must be accompanied by an archaeological evaluation, including details of mitigation as necessary. In addition, saved Policy BNV8 states that there will be a strong presumption against demolition of any building deemed to be of an asset and that in such circumstances every effort must be made to find alternative uses whilst retaining their original character.
- 8.3.54** An assessment of the impact of the Scheme, including both the Principal Application Site and Satellite Application Sites, upon heritage assets, is provided in **Chapter 9** (Cultural Heritage) of the ES, the conclusions of which are summarised in paragraphs **7.7.33** to **7.7.35** of this document. The Applicant has engaged with Historic England on a regular basis during the design process. Further, The Applicant is aiming to agree a Statement of Common Ground (SoCG) with Historic England. Work on the SoCG is

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underway, and the Applicant envisages that the SoCG will be progressed and developed throughout the DCO examination period.

- 8.3.55** In relation to designated heritage assets, **Chapter 9** of the ES concludes that the Scheme would lead to less than substantial harm on the identified assets. A description of the wider public benefits delivered by the Scheme outweighing the less than substantial harm on the designated heritage assets, is provided in response to paragraph 5.134 in **Appendix A** of this document.
- 8.3.56** In terms of impact on Conservation Areas, **Chapter 9 of the ES** concludes that the value of the assets would not be impacted upon by the Scheme to the extent that significant effects would occur.
- 8.3.57** **Table 9-10** in **Chapter 9** of the ES summarises the potential effects of the Scheme upon various features during the construction and operation phases, including currently unidentified archaeological assets and paleoenvironmental assets, and assesses their significance prior to and following the application of mitigation. If identified on site, mitigation would be in the form of preservation in-situ or through preservation by record, and is set out in a Archaeological Written Scheme of Investigation (WSI) (DCO Document **6.9**).
- 8.3.58** On this basis the Scheme is considered to be in conformance with Saved Policies BNV2 and BNV8.

#### **Natural Resources and Flooding**

- 8.3.59** Policy CS12 of the Core Strategy seeks to ensure that all new non-residential development maximises the level of energy efficiency and incorporates passive design and construction techniques, sustainable drainage, safeguards minerals and promotes the use of secondary and recycled aggregates.
- 8.3.60** **Paragraph 13.5.25** in **Chapter 13** of the ES details a number of embedded mitigation measures aimed at reducing the impact of GHG emissions during construction of the Scheme. For example, materials, suppliers and waste management facilities will be locally sourced where practicable, as secured by the OCoCP (DCO Document **6.16**)
- 8.3.61** As set out in the Drainage Strategy (**Appendix 12C** to DCO Document **6.2**), the Contractor's detailed design must adhere to the following design return periods:
- *"1 in 1 year return period, critical storm duration – to be accommodated without surcharge;*
  - *1 in 30 year return period, critical storm duration – to be accommodated without surcharge above chamber cover level – i.e. no flooding to the highway;*
  - *1 in 100 year return period, 6 hour duration storm – to be accommodated*

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*within storage structures; and*

- *An allowance for climate change will also be applied to the drainage design by increasing the rainfall intensity by 40%”.*

**8.3.62 Paragraphs 8.3.92 to 8.3.94** below consider the impact of the Scheme upon mineral reserves and efforts taken to promote the use of secondary and recycled aggregates.

**8.3.63** Policy CS13 requires that new development employs a practical approach to flood risk which does not increase the risk of flooding elsewhere. This is to be achieved by directing new development away from areas with the highest risk of flooding, unless sequential and exceptional tests are met.

**8.3.64** The Scheme is predominantly located within Flood Zone 3 (3a). A sequential test was applied and there is no opportunity to locate the development in Flood Zones 1 or 2 (as reported in **paragraph 4.2.3** of the Flood Risk Assessment (**Appendix 12B** in DCO Document **6.2**). The Scheme is classified as essential infrastructure and therefore the Exception Test is applicable.

**8.3.65** Part 1 of the Exception Test, which is provided in response to paragraph 5.106 in **Appendix A** of this document, summarises the wider sustainability benefits to the community that outweigh flood risk. The FRA forms Part 2 of the Exception Test and assesses the risk of flooding to the Scheme over its lifetime and on flood risk elsewhere, taking into account the future implications of climate change.

**8.3.66** The FRA concludes that the most significant source of flooding, in Great Yarmouth as a whole and to the Principal Application Site, is tidal flooding. The FRA has shown that the bridge deck itself is not at risk of tidal flooding even in the extreme climate change scenarios tested, however the approach roads to the bridge are shown to be at risk even in the present day flooding scenarios tested. The impact of the Scheme on the level of flood risk in Great Yarmouth has at worst been found to be moderate (up to 0.1m increase in flood level in a small area) and the impact of the Scheme is reduced for the climate change scenarios where the base flood level is higher than for the present day. Given the existing level of tidal flood risk within Great Yarmouth, as detailed in the FRA, it has been deemed impractical to provide mitigation to reduce the modest impact of the Scheme on tidal flooding within Great Yarmouth.

**8.3.67** The FRA concludes that surface water runoff from the Principal Application Site will increase as a result of the Scheme, however the Drainage Strategy (**Appendix 12C** in DCO Document **6.2**) provides details of how surface water runoff will be managed within the Principal Application Site to avoid an increase in surface water flood risk elsewhere. All sources of flooding are

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assessed in the FRA but the risk of flooding to the Application Site is negligible for all sources apart from tidal and surface water flooding.

### Green Infrastructure

- 8.3.68** Policy CS15 of the GY Core Strategy requires that *“everyone should have access to services and opportunities that allow them to fulfil their potential and enjoy healthier, happier lives”* and that the Council will *“Resist the loss of important community facilities and/or green assets unless appropriate alternative provision of equivalent or better quality facilities is made in a location accessible to current and potential users or a detailed assessment clearly demonstrates there is no longer a need for the provision of the facility in the area”*
- 8.3.69** Furthermore, saved Policy REC11 in the Great Yarmouth Borough Wide Local Plan (2001) states that *“the Borough Council will refuse proposals which would erode the provision of amenity, open space or any other land which contributes positively to the community or street scene, as identified on the Proposals Map. Where not identified, proposals will be treated on their individual merits”*.
- 8.3.70** Part a) of Policy CS16 of the GY Core Strategy states that *“Supporting improvements that reduce congestion, improve accessibility and improve road safety without an unacceptable impact on the local environment, in accordance with Policy CS11; and communities, in accordance with Policy CS9. High priority schemes that will assist in achieving this include... Supporting proposals for a third river crossing over the River Yare which appropriately balances the needs of road and river traffic and continuing to protect the route alignment....”*
- 8.3.71** **Plate 8-2** provides an extract from the Great Yarmouth Core Strategy Policy Map which shows the areas designated as Open Amenity Space (REC11), the protected route alignment for a Third River Crossing (CS16) and the Order Limits associated with the Principal Application Site.
- 8.3.72** Whilst there is a potential conflict between REC11 and CS16, Section 38(5) of the Planning and Compulsory Purchase Act 2004 confirms that *“If to any extent a policy contained in a development plan for an area conflicts with another policy in the development plan the conflict must be resolved in favour of the policy which is contained in the last document to become part of the development plan”*. As such, policy CS16 is noted to be the dominant policy, which is supportive of the Scheme.
- 8.3.73** Policy REC11 is due to be replaced following the adoption of the Draft Local Plan Part 2 via Draft Policy E5-dp ‘Protection of Open Space’. Draft Policy E5-dp states:



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*“Open spaces which provide local amenity, or recreation to the benefit of the local community, will be protected. Development proposals that contribute to the loss of either of these will only be permitted in exceptional circumstances and where the:*

*A. proposal will add to the value and function of the local open space to the benefit of amenity or the local community;*

*B. applicant can demonstrate that the local open space is no longer required; and*

*C. loss of space will be replaced by equivalent or better provision in terms of quantity and quality, including accessibility to the local community where relevant.*

*For the purposes of this policy, amenity includes positive contributions to the character and setting of areas or buildings of particular historic or architectural value”.*

**8.3.74** Unlike Saved Policy REC11, Draft Policy E5-dp does not identify specific areas to which it applies, instead criteria in the first paragraph of the policy define the types of land to which it should be applied. GYBC has confirmed that three responses were received in relation to this policy during the consultation process for the Draft Local Plan Part 2. Sport England offered support for the policy, and Sport England, the Environment Agency, and Norfolk Property Services all suggested additional or amended wording to refine the policy. On 12<sup>th</sup> February 2019, GYBC’s Local Plan Working Party agreed the Strategic Planning Manager’s recommendation that the policy be carried forward to the Proposed (i.e. pre-submission) version of the Draft Local Plan Part 2, subject to revisions to the wording to address the suggestions raised in the comments.

**8.3.75** In the light of the criteria in NPPF paragraph 48, and the absence of outstanding objections to the Draft Policy E5-dp, it is considered this Draft Policy can be given some limited weight in decision making.

**8.3.76** **Plate 8-2** shows the two areas of ‘Open Amenity Space’, as designated by Saved Policy REC11, within the Order Limits.

**8.3.77** The first area of land is located to the east of the Kingsgate Community Centre. The current eastern boundary of the land is Suffolk Road, the southern boundary is William Adams Way, and the northern boundary is the access road to Kings Centre. The western extent runs to a boundary fence with Kings Centre.

**8.3.78** GYBC has confirmed (**Appendix E**) that the area of land is *“is currently unused, overgrown, and surplus to GYBC’s requirements. Most of the site is impenetrable.... The Council has no proposals for the site, except for its*

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*anticipated use for part of the access to the proposed Third River Crossing*". Further, GYBC state that, whilst it has not actively marketed the land, it would be open to a suitable offer to purchase it (if the Scheme were not to proceed) for a specific purpose.

**8.3.79** GYBC, as local planning authority, has assessed the area of land in light of the development plan policies and other material planning considerations, and is of the view that "*the land is surplus to requirements; it is of no existing or planned recreational or sport value; and it makes a limited contribution to visual amenity in the immediate vicinity of the site*".

**8.3.80** In the view of GYBC, the loss of the modest contribution to local visual amenity provided by this 'open space' would be significantly outweighed by the advantage to the area of the provision of the Scheme. GYBC has considered the desirability of a replacement site, and state that "*In light of its lack of any recreational or sport value, and its limited contribution to visual amenity, this would be taking an overly rigid interpretation of the relevant policies leading to a somewhat absurd provision of a piece of scrubland elsewhere*". Finally, GYBC note that "*There is an extensive Council owned open recreational space, 'Southtown Common', immediately across the road from the site (to the South). Southtown Common already provides significant recreational and sport facilities, and makes a contribution to local visual amenity value. In line with the Council's current leisure strategy, any additional sports provision or investment for the locality is expected to be provided here. Therefore, from both a planning and ownership perspective, the Council has no concerns regarding the loss of this small piece of open land to enable provision of the Third River Crossing*".

**8.3.81** The second area of land designated as Open Amenity Space, for the purpose of Policy REC 11, is currently occupied by the MIND Centre and Grounds. As documented in **Chapter 3** of the ES (DCO Document **6.1**), the Scheme design has evolved since the statutory consultation to minimise impacts, and further consultation has taken place with the users of the MIND Centre and Grounds and other relevant consultees. Details of the changes are discussed in **Table 10.15** of the Consultation Report (DCO Document **5.1**) and shown in **Appendix Q3** of the Consultation Report – Appendices (DCO Document **5.2**).

**8.3.82** As reported in **Section 11.3.2** of the Consultation Report, five responses were received in response to the further consultation on the changes to the Scheme to minimise the impact on the MIND Centre and Grounds. Norfolk County Council, in its capacity as Highway Authority, and GYBC confirmed that they had no objections to the proposals.

**8.3.83** As per **Table 11-3** of the Consultation Report, the Applicant has confirmed that sites have been identified within the Order Limits to house existing infrastructure and land uses, including the relocation of disabled pathways, labyrinth, nature reserve and orchard site.

8.3.84 Further, the Applicant is aiming to agree a SoCG with the users of the MIND Centre and Grounds. Work on the SoCG is underway, and the Applicant envisages that the SoCG will be progressed and developed throughout the DCO examination period. It is anticipated that the Applicant will facilitate discussions with GYBC (as landowners) and the MIND Centre and Grounds users to extend the current lease.

8.3.85 **Appendix A** of this document considers the issue of open / amenity space in the context of NPS NN (paragraph 5.166).

#### **Hazardous Installations**

8.3.86 Saved Policy INF 18 of the Great Yarmouth Borough Wide Local Plan (2001) states that *“in considering proposals involving hazardous development, in the vicinity of hazardous installations, or the development of contaminated sites, as shown on the proposals map, account will be taken of the amount, type and location of hazardous substances present, and the need for special precautions or restrictions to protect future users of the site and any other protected land”*.

8.3.87 The HSE were consulted as part of the statutory consultation for the Scheme and confirmed there are two major accident hazard installations in the vicinity of the Principal Application Site, which are the Transco Great Yarmouth Gas Holders and ASCO Fuels and Lubricants site. The Applicant is currently undergoing consultation with the operators of the two sites regarding potential impacts and interactions with the Scheme. As stated in the OCoCP (DCO Document **6.16**), the Applicant will also discuss measures to mitigate any risks identified during the construction phase.

#### **Norfolk County Council’s Minerals and Waste Development Framework 2010-2026**

8.3.88 NCC’s Minerals and Waste Development Framework 2010-2026 (herein referred to as ‘the Minerals and Waste Strategy’) was adopted in September 2011.

8.3.89 The Minerals and Waste Strategy provides *“the spatial vision for future mineral extraction and associated development and waste management facilities in Norfolk. It also contains strategic objectives and policies that make clear where, in broad terms, mineral extraction and associated development and waste management facilities should be located in Norfolk, and conversely where they should not be located. It also sets out Development Management policies that will be used to ensure that the development of mineral extraction and associated development and waste management facilities can happen in a sustainable way at those locations assessed as being appropriate for development”*. The following paragraphs consider the conformity of the Scheme with the spatial strategy set out in the document.

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- 8.3.90** Policies CS1 and CS2 of the Minerals and Waste Strategy set out the spatial framework for minerals extraction in the county, identifying specific tonnage requirements and determining resource areas.
- 8.3.91** Policy CS16 seeks to safeguard existing, permitted and allocated mineral extraction and associated development and waste management facilities, as well as infrastructure located at railheads, wharves and quarries which can transport or handle minerals.
- 8.3.92** The Scheme does not directly conflict with any existing, permitted or allocated mineral extraction sites, including associated development, nor will it impact upon existing, permitted or allocated waste management facilities. There are a number of safeguarded waste management facilities whose consultation areas intersect the Application Site boundary, however, the Scheme would not directly impact upon the operation of these sites.
- 8.3.93** According to the key diagram on page 70 of the Minerals and Waste Strategy, there are no silica sand or carstone resources within the Application Site that would be sterilised by the Scheme. Works proposed to the east of the River Yare are however within an area of sand and gravel reserves. The relevant area falls within the existing operational Port of Great Yarmouth. In addition, the amount of physical development proposed within the designated area is minimal and it is not considered practicable for the applicant to extract the mineral prior to the development taking place. Nevertheless, wherever possible, material extracted during the course of construction will be reused on site in the course of construction.
- 8.3.94** Policy CS17 of the Minerals and Waste Strategy states that the use of secondary and recycled aggregates in all developments is promoted by the County Council and that applicants are required to consider using secondary and recycled aggregates wherever practicable. **Chapter 15 (Table 15.17)** of the ES reports on the outcome of likely significant effects arising from the Scheme upon the consumption of mineral resources and proposes additional mitigation in the form of the identification of opportunities to minimise the export and import of material resources.

#### **8.4 Alignment and conformity with the Norfolk Local Transport Plan**

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- 8.4.1** The Norfolk Local Transport Plan sets out the strategy and policy framework for transport in the County up to 2026 and is to be used as a guide for transport policy framework and considered by other agencies when determining applications. The Scheme is regarded as a Strategic Connection in this document. Its role in enhancing the connection between the SRN and the Port and in reducing congestion in the town centre is acknowledged and delivery in the early 2020s is anticipated.

8.4.2 The Scheme is therefore supported by the Norfolk Local Transport Plan and there are no other policies within the document that alter that conclusion.

## 8.5 Other Policy Documents Considered Important and Relevant to the Scheme

### Norfolk and Suffolk Economic Strategy (2017)

8.5.1 The Norfolk and Suffolk Economic Strategy (NSES) sets out the ambitions of the New Anglia Local Enterprise Partnership for Norfolk and Suffolk up to 2036. The NSES wants Norfolk and Suffolk to be:

- *“The place where high growth businesses with aspirations choose to be;*
- *An international facing economy with high value exports;*
- *A high performing productive economy;*
- *A well-connected place;*
- *An inclusive economy with a highly skilled workforce;*
- *A centre for the UK’s clean energy sector; and*
- *A place with a clear, ambitious offer to the world”.*

8.5.2 In terms of tangible targets, by 2036 the NSES aspires to have *“added 17.5bn in real terms to our economy, have created 88,000 new jobs, 30,000 new successful businesses, and 140,000 new homes, have a GVA per hour of £39, increased median wages by £200 more per week and 66% of the population holding NVQ3+ qualifications”.*

8.5.3 The NSES hails the East of England Energy Zone as *“unrivalled in the UK for its unique mix of wind power, gas and nuclear energy production”* and identifies Great Yarmouth as being *“at the centre of the world’s largest market for offshore wind”*, also referencing the 50 years of experience and expertise present within the local supply chain. The NSES identifies Great Yarmouth as a major growth location and acknowledges the need for infrastructure improvements to facilitate growth. As set out in **Section 4** and **5** of this document, the Scheme constitutes a necessary infrastructure improvement as it provides a more direct link between the Port and the SRN thus aiding the town and region as a whole, in sustainably exploiting opportunities associated with the anticipated growth in the East of England Energy Zone.

### Great Yarmouth Borough Infrastructure Plan 2014

8.5.4 The Great Yarmouth Infrastructure Plan 2014<sup>67</sup> (“the GY Infrastructure Plan”) identifies the physical, social and green infrastructure needed to support the Borough’s growth ambitions set out in the emerging Local Plan over the plan period.

8.5.5 The GY Infrastructure Plan describes how the towns of Great Yarmouth and Gorleston-on-Sea suffer from congestion within their built-up areas. This is stated as being primarily because there are only two crossings over the River Yare and significant congestion occurs at the junctions on the approach to these crossings. The South Denes peninsula in Great Yarmouth is stated as being particularly inaccessible and existing congestion problems are exacerbated by industrial and freight traffic needing to access this area.

8.5.6 The need for a Third River Crossing is specifically recognised in the GY Infrastructure Plan by GYBC, the Norfolk and Suffolk Local Transport Body, New Anglia LEP and the A47 Alliance as a “*strategic priority for unlocking future economic growth in the area. It will also ease existing congestion problems and improve accessibility in Great Yarmouth, including access to the seafront, South Denes and outer harbour areas*”<sup>67</sup>.

#### Great Yarmouth Economic Growth Strategy 2017-2021

8.5.7 The GY Economic Growth Strategy was developed by GYBC and sets out the key sectors best placed to deliver employment growth over the Strategy’s lifespan. Included is a list of aims to achieve a ‘Prosperous Physical Environment and Improved Infrastructure’.

8.5.8 As discussed in **Section 4** of this document, the GY Economic Growth Strategy identifies four broad aims by which to deliver its economic aspirations.

8.5.9 One such aim is to “*create the right environment in which to invest, work, visit and live*”. In seeking to deliver this aim an objective is to “*provide land and premises for the energy sector development, improved transport, broadens connectivity and flood defences and advance a clear plan for a revived town centre*”.

8.5.10 Aim 4.6 of the Action Plan, within section 5 of the Economic Growth Strategy, is to “*Advance the business case for the Third River Crossing*”. The GY Economic Growth Strategy identifies the GYTRC as a key component of the infrastructure required to support new development.

#### Great Yarmouth Town Centre Regeneration Framework and Master Plan (May 2017)

8.5.11 The Great Yarmouth Regeneration Framework and Masterplan covers the area between the seafront, the Yare riverfront, and the old town walls. Its vision is for new investment and employment in the town centre, generating renewed pride in Great Yarmouth and building confidence for the future.

8.5.12 The policy document acknowledges that “*in the medium term...no single investment is likely to do more to boost the regeneration of the town centre than the proposed Great Yarmouth Third River Crossing*” as it has “*the*

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*potential to significantly relieve the town centre of Port-related traffic”. The GY Regeneration Framework and Masterplan goes on to state that the opportunity for the town centre will then be to “reallocate road space and invest in the public realm. This has the potential to unlock the value of what were historically the town’s most prosperous areas with its finest buildings, along the riverside from Fullers Hill to Hall Quay and South Quay”.*

#### **‘The Plan’ 2015 – 2020**

- 8.5.13** ‘The Plan’, published by GYBC, reiterates Great Yarmouth’s ambition is to be a “*fast growing coastal ‘Enterprise Town’ capable of “fully exploiting the port and opportunities of offshore energy industry”*<sup>46</sup>. Its vision is for local people to have the skills necessary to work in the renewable energy, high tech electronic and engineering sectors whilst local and smaller scale businesses thrive and grow.
- 8.5.14** GYBC’s support for the Scheme is repeated within the document. In seeking to unlock the future economic growth in the area the Council commit to “*not only continue to support but champion and lobby with partners including the LEP, Norfolk County Council and others to achieve this*”.

## 9 Anticipated Benefits and Disbenefits of the Scheme

### 9.1 Overview

- 9.1.1 This section provides an overview of the considered benefits and disbenefits of the Scheme. The considerations have followed the decision-making framework set out in Section 104 of the Planning Act, which requires that the Scheme be in accordance with the relevant NPS (which has been demonstrated in **Section 7** and **Appendix A** of this document). According to Section 104, the SoS must also have regard to the appropriate marine policy documents, any local impact report, any matters prescribed in relation to development of the description to which the application relates, and any other matters which the SoS thinks are both important and relevant to their decision. These requirements have been addressed in **Sections 7** and **8**.
- 9.1.2 Compliance of the Scheme with the relevant NPS is required except to the extent that one or more of subsections (4) to (8) of section 104 of the Planning Act applies. As discussed in **Section 6** of this document, there are no circumstances which would require the application for development consent to be determined other than in accordance with the relevant NPS.
- 9.1.3 Section 104(7) is applicable in circumstances where the SoS is satisfied that the adverse impacts of the proposed development would outweigh the benefits. As summarised below and supported by the suite of DCO documents forming this application, there are no adverse impacts which outweigh the Scheme's anticipated benefits.
- 9.1.4 According to paragraph 4.3 of the NPS NN, in considering any development's adverse impacts against its benefits, the following should be taken into account:
- *“its potential benefits, including the facilitation of economic development, including job creation, housing and environmental improvement, and any long-term or wider benefits; and*
  - *its potential adverse impacts, including any longer-term and cumulative adverse impacts, as well as any measures to avoid, reduce or compensate for any adverse impacts”.*
- 9.1.5 Paragraph 4.4 of the NPS NN states that in this context, environmental, safety, social and economic benefits and adverse impacts, should be considered at national, regional and local levels.



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## 9.2 Scheme Benefits

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**9.2.1** The economic benefits associated with the Scheme are significant. As discussed in **Section 5.6**, the total scheme Present Value of Benefits (PVB) is calculated at £297,294 million (2010 prices) for the core scenario, which reduces to £186,182 million when the Scheme costs are subtracted. The adjusted BCR for the core scenario is 2.7 which represents high VfM under all scenarios as outlined within the Economic Appraisal Report (DCO Document **7.8**).

**9.2.2** The WITA Technical Note (Appendix F to the EAR) calculates the total wider impact benefits for the scheme are £58.7m with agglomeration benefits accounting for £53.1m of this total, which is equivalent to 25% of TUBA user benefits.

**9.2.3** This Case for the Scheme demonstrates that the Scheme would realise benefits associated with the fulfilment of the objectives stated in **Section 4.5** of this document. A summary of the objectives together with the Scheme's contribution in achieving them is set out below:

- **To support Great Yarmouth as a centre for both offshore renewable energy and the offshore oil and gas industry, enabling the delivery of renewable energy NSIPs and enhancing the Port's role as an international gateway** (as acknowledged in the SoS Section 35 Direction).
  - The Scheme would enhance connectivity between the SRN and the Port; and
  - The improvements meet the primary aspirations of the Government's Industrial Strategy and Transport Strategy, which are to create a better-connected transport network and build a stronger economy. Overall, the infrastructure improvements will significantly enhance Great Yarmouth's growing role in supporting the offshore energy sector and assist the Port in reaping the opportunities associated with the delivery of existing and potential renewable energy NSIPs (see **Section 5.6**).
- **To improve access and strategic connectivity between Great Yarmouth Port and the national road network thereby supporting and promoting economic and employment growth (particularly in the Enterprise Zone);**
  - The Scheme creates a more direct and shorter link between the SRN and the Port leading to quicker and more reliable journeys between the two (see **Section 5.5**);
  - The Scheme would enhance connectivity between the South Denes and Beacon Park EZ sites, as well as those further afield in Lowestoft, thus

creating opportunities for greater synergy between technology and energy related businesses operating within them (see **Section 5.6**); and

- The Scheme connects a greater proportion of the town's labour market to employment areas, such as the existing industrial estates and Port (see **Section 5.5**).
- **To support the regeneration of Great Yarmouth including the town centre and seafront, helping the visitor and retail economy.**
  - The Scheme successfully re-routes Port-related traffic away from key links leading into the town centre, such as Haven Bridge, creating capacity for town centre and seafront traffic and reducing congestion, particularly during the peak tourism season (see **Section 5.5**); and
  - The additional capacity created supports the regeneration of retail, leisure and commercial uses within the town centre, for example within the Waterfront Area (see **Section 5.6**).
- **To improve regional and local access by enhancing the resilience of the local road network, reducing congestion and improving journey time reliability.**
  - Overall, the Scheme leads to reduced congestion and improved journey time reliability on the local highway network, particularly on links leading towards the town centre from the west of the town, such as Haven Bridge (see **Section 5.5**). Disbenefits relating to increased traffic on specific links as a result of the Scheme are summarised in **Section 9.3**;
  - The Scheme would greatly improve the resilience of the local road network, particularly in relation to the need for planned and emergency closures of Haven Bridge for maintenance and repair purposes (see **Sections 4.3** and **5.5**); and
  - The Scheme significantly improves connectivity for all transport modes by allowing heavy traffic, including abnormal loads, to be re-routed around the town centre and freeing up the town centre roads for local traffic and NMUs (see **Section 4.3**).
- **To improve safety and to reduce road casualties and accidents, in part by reducing heavy traffic from unsuitable routes within the town centre.**
  - The Scheme would result in a saving of 54 casualties over the 60 year assessment period. The economic benefit of these savings is calculated as £0.9m, with accidents making up less than 1% of total Scheme benefits reported in the EAR (see **Section 5.5**).
- **To improve access to and from the Great Yarmouth peninsula for pedestrians, cyclists and buses, encouraging more sustainable modes of transport and also reducing community severance.**

- The Scheme provides a quicker route between the west and east of the town for non-motorised users (NMUs) and significantly improves accessibility for pedestrians and cyclists, which encourages more sustainable modes of transport and reduces community severance (see **Section 5.5**);
- The Scheme will generate around £10million of savings over the course of its lifetime due to active mode benefits, relating primarily to journey time savings, but also from an improvement in journey quality, increased physical activity and reduced absenteeism (see **Section 5.5**); and
- The Scheme results in a general improvement in assessed bus journey times with an average saving of 12 seconds (1%) in the AM peak and 42 seconds (3%) in the PM peak anticipated. In addition, the Scheme presents an opportunity for new, more direct bus routes into the South Denes area to be introduced (see **Section 5.5**).
- **To protect and enhance the environment by reducing emissions of greenhouse gases and minimising the environmental impact of the Scheme.**
  - During operation the Scheme results in a slight beneficial impact in GHG emissions (see **Section 7.7**); and
  - The Scheme's impact upon the environment has been minimised as far as possible through sensitive design and incorporation of appropriate mitigation (see **Section 7**).

#### 9.2.4 In addition to the above the Scheme:

- Provides high quality public realm, additional public space and landscaping, such as Bollard Quay, as shown in **Figure 6.6** of the Design Report;
- Offers benefits to the Port's customers and their customers and supply chain, as referenced throughout **Sections 5.5** and **5.6** and consistent with the Ports Connectivity Study, which states that "*if our ports are to continue to thrive then the national, regional and local infrastructure supporting them has to be effective and efficient*".
- Provides improved access for the Kings Centre benefitting both employees and visitors through the provision of a more direct access back to the A47 for anyone leaving the centre;
- Creates an estimated 117 jobs per annum during the construction period (allowing for displacement), with 58 at the local level and 59 at the regional level; and
- Has been designed in such a way, and incorporates suitable protective provisions within **Schedule 14 Part 6** of the draft DCO, to ensure that Port users are able to continue operations within its vicinity of the Scheme.

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### 9.3 Anticipated Disbenefits

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**9.3.1** The NPS NN recognises that national network infrastructure may result in adverse impacts, such as visual impacts, noise impacts or impacts on the natural environment. Some of these impacts could occur as a result of the Scheme, however, this document and the ES has demonstrated that the likely impacts have been minimised and / or avoided wherever possible (through options appraisal assessment and design considerations, as well as through the adoption of appropriate mitigation strategies). Moreover, it is considered that the significant public and sustainability benefits provided by the Scheme, as set out in **Sections 5.5** and **5.6** and summarised in **Section 9.2**, outweigh the disbenefits identified. The anticipated disbenefits of the Scheme are set out below.

- There are nine residential properties on Southtown Road, ten on Queen Anne's Road and one of Cromwell Road that are to be demolished in order to accommodate the Scheme;
- To the west of the river, the Scheme would necessitate the demolition of warehouses south of Cromwell Road, whilst a number of other commercial businesses within the Order Limits are to be temporarily affected. To the east of the river, the Scheme bisects land at Atlas Terminal owned by Great Yarmouth Port Authority and occupied by various companies including Asco UK Ltd, Perenco UK Ltd and Peel Ports. In addition, a building on South Denes Road occupied by South Denes Car Centre would be demolished.
- A temporary loss of quay and berthing space will be experienced within the operational Port on the east side of the river to facilitate construction, and there will be a permanent loss of a smaller area of quay space and operational land when the Scheme is in operation. It has been demonstrated in **Sections 7** and **8** of this document that impacts on the Port have been mitigated.
- As set out in **Section 5.5**, the Scheme is predicted to result in increased flows on a number of links on the local highway network as a result of the re-routing of traffic seeking access to the new crossing. With reference to the capacities for urban roads listed in Table 2 of the Advice Note TA 79/99 from the Design Manual for Roads and Bridges (DMRB), the TA concludes that the forecast busiest direction flow is within the capacity of each link affected. The predicted increased link journey times are explained in the TA as being due to some traffic diverting onto these roads to use the new bridge and notes that overall journey times will still be reduced for diverting traffic, because of the reduced distances travelled, even though some of the links in the journey may be slower. For some of the links, such as Admiralty Road, Sutton Road and Swanston's Road, high percentage vehicle number increases are predicted, however, due to the relatively low flows present on the links in the 2018 base model, the actual increase in terms of vehicle numbers is not considered to be significant in traffic terms. The TA includes mitigation (at **Section 8.2**) in the

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form of VMS and the review of, and if necessary updates to, timings at key junctions listed in **paragraph 5.5.18** above, as part of the Highway Authority's business as usual management of the local highway network. Signal staging and timing arrangements will be optimised accordingly using the professional judgement of the NCC Urban Traffic Control team, in liaison with Highways England as required. Finally, NCC will continue to liaise closely with Highways England to promote optimum improvements in Great Yarmouth.

- Some environmental disbenefits, as assessed and set out in the ES, including construction and operational noise, air quality emissions during construction, temporary impacts on ecological receptors, less than substantial harm to designated heritage assets such as Nelson's monument, and a modest increase in tidal flood risk, cannot practically be mitigated. In relation to flood risk, the Exception Test is provided in response to paragraph 5.106 of the NPS NN in **Appendix A** of this document. The less than substantial harm to designated heritage assets is justified on the basis of the significant public benefits arising from the Scheme which outweigh such harm, as set out in response to paragraph 5.134 of the NPS NN in **Appendix A**.
- An impact on the MIND Centre and Grounds as a result of the Scheme, which the Applicant has sought to mitigate through refinements to the Scheme design including the relocation of disabled pathways, 'labyrinth', nature reserve area and orchard site.
- As described in **Chapter 7** of the ES, significant adverse construction noise and vibration effects are predicted, which remain despite the implementation of appropriate mitigation, including compliance with the OCoCP. Residual significant adverse operational road traffic noise effects are also predicted. Opportunities to offset the predicted effects, such as changing the location, alignment or height of the road, reducing traffic speed, use of low-noise thin surface course system and use of roadside acoustic barriers, screens and bunds, have been considered but are limited due to the urban nature of the surrounding area. As a result, **Chapter 7** of the ES concludes that significant adverse effects would remain because of the operation of the Scheme, notwithstanding that some receptors may be eligible for noise insulation under the NIR.

## 9.4 Summary

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- 9.4.1 Notwithstanding the disbenefits identified, there is an overriding case for the Scheme which delivers a range of benefits with national, regional and local significance. At a national level, the Scheme's success in delivering reduced journey times between the Port and SRN will substantially improve the Port's connectivity and resilience in line with its role as an International Gateway. This in turn enhances the Port's ability to service both the existing demands of the offshore energy industry and the likely growth in activity associated with the implementation of renewable energy NSIPs off the East Coast of England.

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- 9.4.2 A review of responses received to the statutory consultation for the Scheme reveals strong support for the Scheme, with over 67% respondents (of those who answered the question) either strongly agreeing or agreeing that the Scheme was needed.
- 9.4.3 The support within the area for the Scheme and the economic benefits it brings is also highlighted in the consultation response of GYBC who state: *“Great Yarmouth Borough Council strongly supports the compelling business case for investment in the Third River Crossing... This vital infrastructure will bring significant benefits to the economy by better connecting the strategic road network to the deep-water outer harbour, river port and energy related Enterprise Zone”*. The benefits would also be felt at a regional level with journey times between the Outer Harbour and neighbouring Port of Lowestoft reducing, thus stimulating synergies between the two Ports as well as the industries and supply chains they serve. The benefits in this sense are endorsed by the New Anglia Local Enterprise Partnership who, in their statutory consultation response, comment: *“The scheme will help to deliver our strategic ambitions by encouraging further investment in the Norfolk and Suffolk Energy Coast, a global centre of oil, gas, nuclear and renewable energy generation and infrastructure and an identified Priority Place in the Norfolk and Suffolk Economic Strategy”*.
- 9.4.4 At a local level, the overall impact of the Scheme would be to reduce congestion and improve journey time reliability on the local highway network, particularly on Haven Bridge. The Scheme significantly improves connectivity for all transport modes by allowing heavy traffic, including abnormal loads, to be re-routed around the town centre and freeing up the town centre roads for local traffic and NMUs. The resilience of the local road network would also be greatly enhanced by the Scheme with the Scheme providing critical flexibility during unforeseen or planned maintenance to the existing crossings. The Scheme’s impact in addressing issues on the local highway network also benefits the town’s visitor and retail economy. The Scheme provides improved access for shoppers and visitors and supports the regeneration of retail, leisure and commercial uses within the town centre.
- 9.4.5 The Scheme represents high value for money, delivers infrastructure necessary for the delivery of the Government’s Industrial Strategy and provides a vital link between the two halves of Great Yarmouth, bringing with it significant opportunity for advancements in the social wellbeing and economic prosperity of the town’s population.

## 10 Conclusions

- 10.1.1 The national significance and need for the Scheme derives from the considerable improvement in connectivity and resilience it will deliver to the Port, which itself has a nationally significant role in servicing the offshore energy industries.
- 10.1.2 This document has set out the need for the Scheme in the context of relevant policies, transport and regeneration outcomes, and has specified how the Scheme addresses these needs.
- 10.1.3 The Scheme will support the delivery of existing and potential NSIPs and the Port's role as an International Gateway. Under the present scenario, the demands upon and constraints of the limited river crossing options at the northern end of the town and absence of a crossing at its southern end, results in congestion and unreliable journey times for Port related vehicles, employees, deliveries and visitors, and a lack of connectivity for visitors and tourists to Great Yarmouth's town centre and historic areas.
- 10.1.4 The NPS NN is the relevant NPS to be used when determining an application for which development consent applies. As has been demonstrated, there is significant policy support within the NPS NN and (although it has less of a basis for assessment) the NPS for Ports.
- 10.1.5 The Development Plan, including emerging plan documents subject to the stage of preparation they have reached, is considered an important and relevant matter in determining applications for an order granting development consent. It has been demonstrated in **Section 8** of this document that the Scheme conforms with requirements of the adopted and emerging Development Plan documents, notably the adopted GY Core Strategy and Draft Local Plan Part 2, wherein land required to deliver the Scheme is safeguarded.
- 10.1.6 Under the requirements of the Planning Act, a decision on the application must be made in accordance with the NPS NN unless the Scheme's impacts would outweigh its benefits or other specified exceptions apply. It has been demonstrated that the Scheme will have significant benefits which more than outweigh the limited disbenefits and that none of the other specified exceptions applies, and therefore it should be supported.

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## References

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<sup>1</sup> References to legislation in this document are to that legislation as amended at the date of this document

<sup>2</sup> Department for Transport (2014) National Policy Statement for National Networks

<sup>3</sup> Department for Business, Energy and Industrial Strategy (November 2017) Industrial Strategy, Building a Britain fit for the future.

<sup>4</sup> Department for Transport (July 2017) Transport Investment Strategy.

<sup>5</sup> Department for Transport (April 2018), Transport Infrastructure for our global future, A Study of England's Port Connectivity

<sup>6</sup> Infrastructure and Projects Authority (2016) National Infrastructure Delivery Plan 2016–2021.

<sup>7</sup> Department for Environment, Food & Rural Affairs (2011) UK Marine Policy Statement.

<sup>8</sup> Marine Management Organisation (2014) East Inshore and East Offshore Marine Plans.

<sup>9</sup> Planning Inspectorate (2016) Advice Note 6: Preparation and Submission of Application Documents (Version 7).

<sup>10</sup> Ministry of Housing, Communities and Local Government (2019) National Planning Policy Framework.

<sup>11</sup> The Development Plan in force in the area comprises the Great Yarmouth Local Plan Part 1: Core Strategy 2013-2030 (2015), Norfolk County Council's Mineral and Waste Development Framework (2013) and saved policies in the Great Yarmouth Borough-Wide Local Plan (2001)

<sup>12</sup> The Local Plan (2013-2030) Part 2: Detailed Policies and Site Allocations Development Plan Document (in preparation) and Local Plan (2021-2036) Development Plan Document



<sup>13</sup> There is no material difference in substantive or procedural terms between a DCO for a scheme for which a direction has been given by the SoS under section 35 of the Planning Act and a DCO for a NSIP that meets the required thresholds as set out in the Planning Act. As such, the Scheme will be referred to as an NSIP in this Case for the Scheme.

<sup>14</sup> Office of National Statistics (unknown) NOMIS [online] Available at <https://www.nomisweb.co.uk/> (Accessed 17th April 2019)

<sup>15</sup> Department for Transport. (2015) Road Investment Strategy: for the 2015/16 – 2019/20 Road Period 1

<sup>16</sup> Highways England (April 2015) East of England Route Strategy. Available at: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/416730/East\\_of\\_England.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/416730/East_of_England.pdf) [Accessed 17th April 2019]

<sup>17</sup> New Anglia Local Enterprise Partnership for Norfolk and Suffolk (Unknown) Space to Innovate. Available at <https://newanglia.co.uk/wp-content/uploads/2017/10/EZ-brochure-16-sites-light-purple-FINAL-March-2016.pdf> [Accessed 17th April 2019]

<sup>18</sup> GYBC (unknown) Available online at (<https://www.great-yarmouth.co.uk/business/industry.aspx>) [Accessed 17th April 2019] Extract Included in Appendix D.

<sup>19</sup> GYBC (Unknown) Online resource available at: <https://www.great-yarmouth.co.uk/business/oil-and-gas.aspx> [Accessed 17th April 2019] Extract Included in Appendix D.

<sup>20</sup> Veolia (17/06/2015) Press Release. Available at: <https://www.veolia.co.uk/press-releases/peterson-and-veolia-announce-new-great-yarmouth-decommissioning-facility-support> [Accessed 17th April 2019]. Extract included in Appendix D.

<sup>21</sup> Scottish Power (27/04/2016) Press Release. Available at: [https://www.scottishpower.com/news/pages/europes\\_largest\\_contract\\_for\\_offshore\\_wind\\_turbines\\_announced\\_by\\_scottishpower\\_renewables\\_and\\_siemens.aspx](https://www.scottishpower.com/news/pages/europes_largest_contract_for_offshore_wind_turbines_announced_by_scottishpower_renewables_and_siemens.aspx) [Accessed 17th April 2019]. Extract Included in Appendix D.

<sup>22</sup> Vattenfall UK (Unknown) Online resource available at: <https://corporate.vattenfall.co.uk/projects/wind-energy-projects/vattenfall-in-norfolk/norfolkvanguard/> [Accessed 17th April 2019]. Extract Included in Appendix D.

<sup>23</sup> New Anglia Local Enterprise Partnership (Unknown) Online resource available at: <https://newanglia.co.uk/offshore-wind-giant-plans-great-yarmouth-operations-base/> [Accessed 17th April 2019] Extract Included in Appendix D.

<sup>24</sup> The Crown Estate (2018) Press Release. Available at: <https://www.thecrownestate.co.uk/en-gb/media-and-insights/news/2018-the-crown-estate-launches-a-second-phase-of-engagement-on-new-offshore-wind-leasing-following-positive-market-response/>. [Accessed 17th April 2019]. Extract Included in Appendix D

<sup>25</sup> HM Government (2015) Building Offshore Wind in England CORE: Centres for Offshore Renewable Engineering.

<sup>26</sup> GYBC (2012) Great Yarmouth and Lowestoft Enterprise Zone Local Development Order for Beacon Park

<sup>27</sup> Norfolk County Council (2011) Connecting Norfolk”, Norfolk’s Local Transport Plan for Norfolk 2026

<sup>28</sup> GYBC (2015) Great Yarmouth Local Plan: Core Strategy 2013 – 2030

<sup>29</sup> Department for Communities and Local Government (2015) The English Indices of Deprivation 2015 [online] Available at <https://www.gov.uk/government/statistics/english-indices-of-deprivation-2015> [Accessed 17th April 2019]

<sup>30</sup> Waveney District Council (2018) Waveney Local Plan. Available at: <https://www.eastsuffolk.gov.uk/planning/local-plans/waveney-local-plan/> . [Accessed 17th April 2019].

<sup>31</sup> HM Treasury. (2017) Autumn Budget 2017, Available at: <https://www.gov.uk/government/publications/autumn-budget-2017-documents> [Accessed 17th April 2019]

<sup>32</sup> The TEN-T is a EC policy directed towards the implementation and development of a Europe-wide network of roads, railway lines, inland waterways, maritime shipping routes, ports, airports and rail-road terminals.

<sup>33</sup> GYBC (Unknown) Great Yarmouth Borough Profile 2017. Available at: <https://www.great-yarmouth.gov.uk/CHttpHandler.ashx?id=988&p=0> [Accessed 17th April 2019].

<sup>34</sup> Norfolk County Council (03/07/2018) Press release. Available at <https://www.norfolk.gov.uk/news/2018/07/further-work-to-resolve-haven-bridge-issues-with-overnight-road-closure-planned-for-thursday> [Accessed 17th April 2019]. Extract Included in Appendix D.

<sup>35</sup> BVG Associates (2016) Strategic review of UK east coast staging and construction facilities. A report by BVG Associates for the Offshore Wind Industry Council.

<sup>36</sup> Regeneris Consulting (March 2017) Great Yarmouth Third River Crossing: Assessment of Wider Economic & Regeneration Benefits. Available online at file:///C:/Users/UKTJR003/Downloads/GYTRC%20OBC%20Supporting%20Document%2011%20Regeneration%20and%20Wider%20Impacts%20Report%20(3).pdf [Accessed 17th April 2019]

<sup>37</sup> Norfolk County Council (2017) Great Yarmouth Third River Crossing: Building Futures

<sup>38</sup> New Anglia Local Enterprise Partnership (November 2017) 'The East' Norfolk and Suffolk Economic Strategy, A Strategy for Growth and Opportunity

<sup>39</sup> New Anglia Local Enterprise Partnership (2014) New Anglia Strategic Economic Plan. Available at <https://newanglia.co.uk/wp-content/uploads/2017/10/New-Anglia-Strategic-Economic-Plan.pdf> [Accessed 17th April 2019]

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<sup>45</sup> GYBC (2017) Great Yarmouth Town Centre Regeneration Framework & Masterplan. Available at: <https://www.great-yarmouth.gov.uk/CHttpHandler.ashx?id=2381&p=0> [Accessed 17th April 2019]

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<sup>55</sup> SoS (2010) Infrastructure Planning (Decisions) Regulations. Available at: <https://www.legislation.gov.uk/ukdsi/2010/9780111490266/contents> [Accessed 17th April 2019]

<sup>56</sup> The Planning Inspectorate (2018) Using the Rochdale Envelope, Version 3. Available here: <https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/2013/05/Advice-note-9.-Rochdale-envelope-web.pdf> [Accessed 17th April 2019]

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<sup>58</sup> Replaced by the Conservation of Offshore Marine Habitats & Species Regulations 2017 with effect from 30 November 2017 but with substantively the same requirements in relation to Habitats Regulation Assessment.

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<sup>60</sup> Met Office (2018) UKCP18 National Climate Projections

<sup>61</sup> HM Government (March 2011) UK Marine Policy Statement.

<sup>62</sup> HM Government (2009) Marine and Coastal Access Act.

<sup>63</sup> HM Government Defra (2018) The National Adaptation Programme and the Third Strategy for Climate Adaptation Reporting: Making the country resilient to a changing climate.

<sup>64</sup> GYBC (2015) Current Status (January 2016) of policies from the 2001 Great Yarmouth borough-Wide Local Plan. Available here: <https://www.great-yarmouth.gov.uk/article/2489/Current-Local-Plan> [Accessed 17th April 2019]

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<sup>66</sup> GYBC (2018) Local Development Scheme 2018-2021. Available at: <https://www.great-yarmouth.gov.uk/CHttpHandler.ashx?id=2671&p=0> [Accessed 17th April 2019]

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## Appendix A – Conformity with the National Policy Statement for National Networks (NPS NN) and the National Planning Policy Statement for Ports (NPS for Ports)

The table below sets out relevant sections of the National Policy Statement for National Networks (NPS NN) and the National Planning Policy Statement for Ports (NPS for Ports) and advises how the Scheme is compliant in each regard. Where reference is made to the NPS for Ports, policy intent that aligns with that of the NPS NN is noted, although the exact policy wording may alter in some cases.

NPS NN / NPS for Ports Paragraph Reference	Policy Requirement of the NPS NN / NPS for Ports	Policy Conformity with the National Policy Statement
<b>AIR QUALITY</b>		
5.6 NPS NN	The NPS NN and NPS for Ports reference that where the impacts of a project (both on and off-scheme) are likely to have significant air quality effects, the applicant should undertake an assessment of the impacts of the proposed project as part of the Environmental Statement.	An assessment of air quality effects in accordance with the NPS NN and the NPS for Ports is included in <b>Chapter 6</b> of the Environmental Statement (“ES”), supported by various appendices and figures (DCO documents <b>6.1 - 6.3</b> ), in accordance with NPS NN and the NPS for Ports.
5.7 NPS NN 5.7.5 NPS for Ports	Sets out the requirements for applicants to assess air quality effects in relation to the EIA process. States that the ES should describe: <ul style="list-style-type: none"> <li>• <i>“existing air quality levels;</i></li> <li>• <i>forecasts of air quality at the time of opening, assuming that the</i></li> </ul>	<b>Chapter 6</b> of the ES details existing air quality levels and forecasts local air quality at the time of opening for both scenarios (i.e. ‘Do Minimum’ (DM) and ‘Do Something’ (DS)), and any significant air quality effects in the construction and operation phases) and their proposed mitigation. The assessment has identified that: <ul style="list-style-type: none"> <li>• Air Quality in the Great Yarmouth area is deemed to be</li> </ul>

*scheme is not built (the future baseline) and taking account of the impact of the scheme; and*

- *any significant air quality effects, their mitigation and any residual effects, distinguishing between the construction and operation stages and taking account of the impact of road traffic generated by the project”.*

Paragraph 5.7.5 of the NPS for Ports includes similar requirements to undertake a staged approach to the assessment of air quality effects.

good, with NO<sub>2</sub>, PM<sub>10</sub> and PM<sub>2.5</sub> annual mean background concentrations reported to be well below the respective objective values. There are no AQMAs within the area (DCO Document **6.1, Paragraphs 6.10.3 - 6.10.4**);

- A Scheme-specific NO<sub>2</sub> baseline air quality monitoring survey, comprising 40 diffusion tubes, was established for a five-month monitoring period from August 2017 to January 2018, covering the operational study area. Details of the monitoring locations and data processing are provided in **Chapter 6** of the ES (DCO Document **6.1, Paragraph 6.5.10**);
- The local air quality assessment considers air quality at the time of opening without the Scheme in place (2023 Do Minimum) (DCO Document **6.1, Paragraph 6.4.40**);
- In operation, the Scheme “*would not result in any new exceedances of the air quality objectives for NO<sub>2</sub>, PM<sub>10</sub> and PM<sub>2.5</sub> at all sensitive receptor locations included in the detailed atmospheric dispersion modelling study. Indeed, there are predicted to be no exceedances of these objectives in both the Do Minimum and Do Something Opening Year (2023) scenarios*” (DCO Document **6.1, Paragraph 6.10.9**);
- The ES further states that “*Of the 10,787 sensitive receptors included in the modelling study, an improvement in annual mean pollutant concentrations is predicted to occur at 4,423 receptors (NO<sub>2</sub>), 3,295 receptors (PM<sub>10</sub>), and 1,995 receptors (PM<sub>2.5</sub>) with the Scheme in operation*” when compared to the 2023 DM Scenario (DCO Document **6.1, Paragraph 6.10.10**). “*In contrast, 5,631 sensitive receptors are predicted to*

		<p><i>experience a worsening in annual mean concentrations of NO<sub>2</sub>, 3,655 to experience a worsening in PM<sub>10</sub>, and 2,590 receptors to experience a worsening PM<sub>2.5</sub></i>" (DCO Document <b>6.1, Paragraph 6.10.11</b>);</p> <ul style="list-style-type: none"> <li>• Control measures to be incorporated during construction to prevent or minimise potential fugitive dust emissions are set out in the Outline Code of Construction Practice (OCoCP) (DCO document <b>6.16</b>). A Requirement has been prepared to secure the provision of the CoCP (DCO Document <b>3.1, Schedule 2</b>);</li> <li>• The Scheme is not predicted to result in significant health impacts (DCO Document <b>6.1, Paragraphs 6.10.14</b>); and</li> <li>• The Scheme would not lead to significant effects on the integrity of sites or species protected under the Habitats Regulations (DCO Document <b>6.1, Paragraphs 6.10.17</b>).</li> </ul>
5.8 NPS NN	States that an applicant's assessment should be consistent with Defra's published future national projections of air quality based on evidence of future emissions, traffic and vehicle fleet (but may include more detailed modelling to demonstrate local impacts).	<p>The assessment detailed in <b>Chapter 6</b> of the ES is based on the latest version of Defra's published future national projections of air quality, and is therefore compliant with NPS NN.</p> <p>Detailed local level modelling was completed in conjunction with the AQ assessment. Sensitive receptors, representing properties considered sensitive to changes in air quality within 200m of the Local Affected Road Network (LARN), were selected for modelling (DCO Document <b>6.1, Paragraph 6.4.12</b>).</p>
5.9 – 5.15 NPS NN	Paragraph 5.9 requires that the SoS must	At <b>paragraph 6.10.18</b> , the assessment concludes that the



be provided with a judgement on the risk as to whether the project would affect the UK's ability to comply with the Air Quality Directive.

Paragraph 5.11 indicates that air quality considerations are likely to be particularly relevant where schemes are proposed:

- *“within or adjacent to Air Quality Management Areas (AQMA);*
- *roads identified as being above Limit Values or nature conservation sites (including Natura 2000 sites and SSSIs, including those outside England); and*
- *where changes are sufficient to bring about the need for a new AQMA; or change the size of an existing AQMA; or bring about changes to exceedances of the Limit Values, or where they may have the potential to impact on nature conservation sites”.*

Paragraph 5.14 and 5.15 of the NPS NN indicates that the proposed mitigation measures should ensure that the net impact of a project does not delay the point at which a zone will meet compliance timescales, and that the

Scheme would not affect the UK's ability to comply with the Air Quality Directive.

**Chapter 6** of the ES confirms that there are no AQMA's within the Great Yarmouth area (DCO Document **6.1, Paragraph 6.10.4**), that background air quality is deemed to be good, with NO<sub>2</sub>, PM<sub>10</sub> and PM<sub>2.5</sub> annual mean background concentrations reported to be well below the respective objective values (DCO Document **6.1, Paragraph 6.10.3**) and no significant environmental effects are predicated within any statutory designated ecological sites during the operational phase of the Scheme (DCO Document **6.1, Paragraph 6.10.17**).

The ES (DCO Document **6.1**) **Paragraph 6.10.16** states that *“the assessment has demonstrated that emissions of oxides of nitrogen, particulates (PM<sub>10</sub>) and carbon dioxide would all decrease during the operational phase of the Scheme in the opening year (2023) and the design year (2038). Decreases in regional emissions with the Scheme are not considered to constitute a significant environmental effect within the context of the total regional and national emissions”.*

Measures to mitigate air quality effects during construction are set out in **Section 3 of the** Outline CoCP (DCO document **6.16**).

The ES reports that there are no appropriate mitigation measures for operational air quality impacts and that *“no monitoring is considered to be required for the Scheme ... as there are no predicted exceedances of the AQS objectives for NO<sub>2</sub>, PM<sub>10</sub> or PM<sub>2.5</sub> as a result of the Scheme in the Opening Year 2023 and the predicted impacts upon local air quality are predominantly negligible ..., and are not significant”* (DCO

	implementation of mitigation measures may require working with partners to support their delivery.	Document <b>6.1, Paragraph 6.8.37</b> ).
5.14 NPS NN 5.7.8-5.7.10 NPS for Ports	States that “ <i>a construction management plan may help codify mitigation</i> ”.	<b>Section 6.8</b> of the ES sets out that during the construction phase, mitigation measures will focus on controlling fugitive releases of construction phase dust. Control measures to be incorporated during construction to prevent or minimise potential fugitive dust emissions are set out in the OCoCP (DCO document <b>6.16</b> ). A Requirement has been prepared to secure the provision of the CoCP (DCO Document <b>3.1, Schedule 2</b> ).
5.7.11 NPS for Ports	States that ports are a source of local air pollution, and that change in modal share of transport to a port has the potential to cause air quality effects, including exceedance of limits. Port development may seek to influence modal share to reduce the potential for these impacts.	The Scheme does not specifically seek to deliver a change in the modal share of transport to the Port.  Set out in <b>Section 5.5</b> of the Case for the Scheme (DCO Document <b>7.1</b> ), the Scheme would deliver enhanced connectivity between the A47 (south) and Outer Harbour in the 2023 PM peak. As a result, the potential for delays to be experienced by vehicles moving goods and services to and from the Port will be reduced. The Scheme would also enhance accessibility for non-motorised users (NMUs) wishing to travel from the west of the river to the Port and Outer Harbour, thus increasing the opportunity for more sustainable travel to the Port from locations within Great Yarmouth.
<b>Carbon Emissions</b>		
5.17 NPS NN	States that “ <i>where the development is subject to EIA, any ES will need to describe an assessment of any likely significant climate factors in accordance</i>	<b>Chapter 13</b> of the ES provides an assessment of the likely significant effects of the Scheme, in relation to both the contribution of the Scheme to climate change, and the vulnerability of the Scheme to climate change (in terms of

	<p><i>with the requirements in the EIA Directive. It is very unlikely that the impact of a road project will, in isolation, affect the ability of Government to meet its carbon reduction plan targets. However, for road projects applicants should provide evidence of the carbon impact of the project and an assessment against the Government's carbon budgets".</i></p>	<p>climate change resilience and adaptation).</p> <p><b>Table 13.12</b> in <b>Chapter 13</b> compares the calculated GHG emissions from the Scheme with the UK Government Carbon Budget, demonstrating that the Scheme would not materially compromise the Government's ability to deliver the carbon reduction strategy in the Carbon Plan 2011.</p> <p><b>Paragraph 13.5.40</b> of the <b>ES Chapter 13</b> states that <i>"Although the operational GHG emissions are forecast to reduce, GHG emission are still being produced by the Scheme. The Scheme is therefore expected to have a neutral effect on climate change during operation. IEMA guidance suggests that all GHG emissions are significant in the absence of any significance criteria or defined threshold. However, given the magnitude of GHG emissions (slight reduction) and the context of the Scheme, using professional judgement including previous experience of road infrastructure schemes, it is considered that the neutral effect of this Scheme will not be significant. Furthermore, as presented in Table 13.12, the GHG impacts of the Scheme would not have a material impact on the Government meeting its carbon reduction targets".</i></p> <p>Finally, it is noted in NPS NN (paragraph 5.17) that <i>"It is very unlikely that the impact of a road project will, in isolation, affect the ability of Government to meet its carbon reduction plan targets".</i></p>
5.18 NPS NN	The Government has an overarching national carbon reduction strategy (as set out in the Carbon Plan 2011) which is a credible plan for meeting carbon budgets. It includes a range of non-planning	As per response given to paragraph 5.17 of the NPS NN.

	<p>policies which will, subject to the occurrence of the very unlikely event described above, ensure that any carbon increases from road development do not compromise its overall carbon reduction commitments. The Government is legally required to meet this plan. Therefore, any increase in carbon emissions is not a reason to refuse development consent, unless the increase in carbon emissions resulting from the proposed scheme are so significant that it would have a material impact on the ability of Government to meet its carbon reduction targets.</p>	
5.19 NPS NN	<p>States that “<i>Evidence of appropriate mitigation measures (incorporating engineering plans on configuration and layout and use of materials) in both design and construction should be presented</i>” and that “<i>the Secretary of State’s view of the adequacy of the mitigation measures relating to design and construction will be a material factor in the decision-making process</i>”.</p>	<p><b>Paragraph 13.5.25</b> of the ES <b>Chapter 13</b> sets out embedded mitigation measures identified in design and to be implemented during construction to limit carbon emissions as a result of the Scheme (for example, the local sourcing of materials, suppliers and waste management facilities will be maximised where possible). Further examples of mitigation employed or proposed are provided in <b>Table 3.10</b> of the Mitigation Schedule (DCO document <b>6.13</b>).</p>
<p><b>Biodiversity and ecological conservation (NPS NN) / Biodiversity and Geological Conservation (NPS for Ports)</b></p>		
5.22 NPS NN	<p>“<i>Where the project is subject to EIA the applicant should ensure that the ES clearly sets out any likely significant effects on internationally, nationally and</i></p>	<p><b>Chapter 8</b> of the ES reports on the outcome of the assessment of likely significant effects arising from the Scheme upon terrestrial and aquatic ecology. The assessment considers potential effects relating to statutory and non-</p>

	<p><i>locally designated sites of ecological or geological conservation importance (including those outside England) on protected species and on habitats and other species identified as being of principal importance for the conservation of biodiversity and that the statement considers the full range of potential impacts on ecosystems”.</i></p>	<p>statutory designated sites; important or protected habitats; and legally protected species and species of conservation concern (DCO Document <b>6.1</b>, <b>Paragraph 8.1.1</b>).</p> <p>The Scheme is located on the River Yare, which is within the Outer Thames Estuary SPA. In addition, the following designated sites are considered in <b>Chapter 8</b> of the ES and in the HRA (DCO Document <b>6.11</b>):</p> <ul style="list-style-type: none"> <li>• Outer Thames Estuary Special Protection Area (SPA);</li> <li>• Breydon Water SPA, Ramsar and Site of Special Scientific Interest (SSSI);</li> <li>• Great Yarmouth North Denes SPA and SSSI;</li> <li>• Broads SAC;</li> <li>• Broadland SPA and Ramsar site; and</li> <li>• Southern North Sea Site of Community Importance (SCI) / candidate SAC.</li> </ul> <p>A Habitats Regulation Assessment (HRA) is presented in DCO Document <b>6.11</b>. The HRA concludes that the Scheme, alone or in combination with any other plan or proposal, would not affect the integrity of any European Site.</p> <p>The ES assessment concludes (DCO Document <b>6.1</b>, <b>Section 8.10</b>) that, subject to implementation of appropriate mitigation, there are no significant effects upon water voles, breeding birds, the benthic and fish community, or bats.</p>
<p>5.23 NPS NN 5.1.4 - 5.1.5 NPS for Ports</p>	<p><i>“The applicant should show how the project has taken advantage of opportunities to conserve and enhance biodiversity and geological conservation interests”.</i></p>	<p>Mitigation measures relating to biodiversity are set out in <b>Chapter 8</b> of the ES. Measures relating to the protection of water voles, breeding birds, the benthic and fish community and bats during the construction period are set out in <b>Section 5</b> of the OCoCP (DCO Document <b>6.16</b>). An Ecological Clerk of</p>

	<p>Similar requirements included within 5.1.4 – 5.1.5 of the NPS for Ports.</p>	<p>Works will be responsible for overseeing on-site ecological mitigation and ensuring that measures in the full CoCP are implemented (<b>Section 5.2</b> of the OCoCP).</p> <p>As discussed in <b>Paragraph 8.8.74</b> of the ES, the following opportunities for enhancing the Scheme site for water vole will be considered, to include:</p> <ul style="list-style-type: none"> <li>• The planting of native wetland plants, reeds, grasses, rushes and sedges along new channels;</li> <li>• The removal of areas of dense woody vegetation on existing watercourses, to allow increased light to reach watercourses and thereby enable an increase in in-stream and marginal wetland plants; and</li> <li>• The restoration of water channels; with deepening or alteration of bank profile where appropriate to maximise their suitability for water voles.</li> </ul> <p><b>Chapter 16</b> of the ES confirms that no geological designated sites exist within 1,500m of the Principal Application Site.</p>
<p>5.1.6 - 5.1.7 NPS for Ports</p>	<p>Identifies that the additional need for the value and role of biodiversity to be protected should be understood in the context of the challenge of climate change.</p>	<p><b>Chapter 8</b> of the ES takes into account the impact of climate change on UK biodiversity in determining the future baseline for assessment. It concludes there is strong evidence that impacts are expected to increase as the magnitude of climate change increases. For example, ES <b>Paragraph 8.5.18</b> recognises that the climate change “<i>may affect bat populations through changes in their annual hibernation cycle, breeding success and food availability</i>”.</p> <p><b>Paragraph 8.5.20</b> states that “<i>whilst there may be some changes in species populations and distribution in the longer term, land management is likely to have a greater influence on</i></p>

		<p><i>biodiversity over much of the study area within the timescale of construction of the Scheme, which is when the majority of effects from the project would occur. It is considered that land use is likely to be the key predictor of species distributions over the lifetime of the Scheme, given that the majority of habitats affected by the works are urban habitats”.</i></p>
<p>5.25 – 5.26 NPS NN 5.18 – 5.1.9 NPS for Ports</p>	<p>NPS NN paragraph 5.2.5 states that “<i>As a general principle, and subject to the specific policies below, development should avoid significant harm to biodiversity and geological conservation interests, including through mitigation and consideration of reasonable alternatives. The applicant may also wish to make use of biodiversity offsetting in devising compensation proposals to counteract any impacts on biodiversity which cannot be avoided or mitigated. Where significant harm cannot be avoided or mitigated, as a last resort, appropriate compensation measures should be sought</i>”.</p> <p>NPS NN paragraph 5.26 states that “<i>In taking decisions, the Secretary of State should ensure that appropriate weight is attached to designated sites of international, national and local importance, protected species, habitats and other species of principal importance for the conservation of biodiversity, and to</i></p>	<p>The HRA (DCO Document <b>6.11</b>) concludes that the Scheme, alone or in combination with any other plan or proposal, would not affect the integrity of any European Site.</p> <p>As set out in <b>Section 8.10</b> of the ES <b>Chapter 8</b>, subject to the implementation of appropriate mitigation measures relating to the protection of water voles, breeding birds, the benthic and fish community and bats during the construction period, as set out in <b>Section 5</b> of the OCoCP (DCO Document <b>6.16</b>), no significant effects upon Protected Species are predicted as a result of the Scheme.</p> <p>In accordance with <b>Paragraph 5.3.4</b> of the OCoCP, opportunities for enhancement for water vole will be implemented by the Contractor in the full CoCP, such as the planting of native wetland plants, reeds, grasses, rushes and sedges along new channels.</p> <p>In terms of geological conservation, <b>Section 16.12</b> of the ES (DCO Document <b>6.1</b>) outlines that there are unlikely to be any significant effects upon geology, soils and contamination arising from the Scheme.</p>

	<p><i>biodiversity and geological interests within the wider environment”.</i></p> <p>Very similar requirements included within 5.1.8 – 5.1.9 of the NPS for Ports.</p>	
<p>5.27 NPS NN 5.1.10 NPS for Ports</p>	<p>The NPS NN refers to the National Planning Policy Framework (NPPF), stating that a number of sites should have the same protection as European sites:</p> <ul style="list-style-type: none"> <li>• <i>“potential Special Protection Areas and possible Special Areas of Conservation;</i></li> <li>• <i>listed or proposed Ramsar sites; and</i></li> <li>• <i>sites identified, or required, as compensatory measures for adverse effects on European sites, potential Special Protection Areas, possible Special Areas of Conservation and listed or proposed Ramsar sites”.</i></li> </ul>	<p>Designated sites considered within the HRA (DCO Document <b>6.11, Paragraph 6.1.1</b>) include:</p> <ul style="list-style-type: none"> <li>• Southern North Sea cSAC / Site of Community Importance (SCI);</li> <li>• Outer Thames Estuary SPA;</li> <li>• Breydon Water SPA;</li> <li>• Breydon Water Ramsar;</li> <li>• Great Yarmouth and North Denes SPA;</li> <li>• The Broads SAC;</li> <li>• Broadland SPA; and</li> <li>• Broadland Ramsar.</li> </ul> <p>The HRA concludes that the Scheme, alone or in combination with any other plan or proposal, would not affect the integrity of any European Site.</p>
<p>5.29 NPS NN 5.1.11 NPS for Ports</p>	<p>Identifies the approach which should be taken in order to minimise adverse effects on SSSIs, and states that where an adverse effect is likely to occur, the benefits of the development should clearly outweigh both the impacts on the SSSI and any broader impacts on the network of SSSIs.</p>	<p><b>Chapter 8</b> of the ES advises that, subject to the implementation of appropriate mitigation, there would be so significant effects upon SSSIs as a result of the Scheme.</p>



<p>5.30 NPS NN 5.1.13 NPS for Ports</p>	<p><i>“As a public authority, the Secretary of State is bound by the duties in relation to Marine Conservation Zones (MCZs) imposed by sections 125 and 126 of the Marine and Coastal Access Act 2009”.</i></p>	<p>The Application Site is not within the boundary of a Marine Conservation Zone.</p>
<p>5.31 NPS NN 5.1.14 NPS for Ports</p>	<p>Refers to regional and local sites (Local Geological Sites, Local Nature Reserves and Local Wildlife Sites and Nature Improvement Areas) and states that the SoS should give them due consideration, noting that these designations in isolation should not be used to refuse development consent.</p>	<p><b>Section 8.5</b> in <b>Chapter 8</b> of the ES recognises the potential presence and importance of regional and local sites. The methodology for local and regional consideration is outlined in <b>Sections 8.4</b> (Scope, Methodology and Significance Criteria) and <b>8.5</b> (Baseline Conditions) of the ES.</p> <p><b>Chapter 8</b> of the ES advises in <b>paragraph 8.5.5</b> that there are no non-statutory designated sites within the Main or Broad Study Areas.</p> <p><b>Paragraph 16.5.1</b> in <b>Chapter 16</b> of the ES confirms there are no geological designated sites exist within 1,500m of the Principal Application Site.</p>
<p>5.32 NPS NN 5.1.15 NPS for Ports</p>	<p>Development that would result in the loss or deterioration of irreplaceable habitats including ancient woodland and the loss of aged or veteran trees should not be granted development consent unless the national need for and benefits of the development, in that location, clearly outweigh the loss. <i>“Where such trees would be affected by development proposals, the applicant should set out proposals for their conservation or, where their loss is unavoidable, the reasons for</i></p>	<p>The Detailed Arboricultural Report (DCO Document 6.2, Appendix <b>8H</b>) identifies two high quality arboricultural features, one of which is a ‘veteran’ tree (Tree T5) and the other ‘notable’ (Tree T12). Appendix 8H notes that <i>“although these trees are not currently recorded on the Woodland Trust’s Ancient Tree Hunt Interactive Map, both trees should be considered as an ancient tree in regard to this Scheme”</i> (<b>paragraph 5.2.6</b>).</p> <p><b>Paragraph 6.2.4</b> of the Detailed Arboricultural Report confirms that the implementation of the Scheme will not require their removal.</p> <p>Trees subject to Tree Preservation Order or within</p>

	<i>this</i> ".	Conservation Areas are described in <b>Schedule 12</b> of the Draft DCO (DCO Document <b>3.1</b> ) and shown on the Tree Preservation Order and Conservation Area Plans, DCO Document <b>2.8</b> ).
5.33 NPS NN	States that development proposals potentially provide many opportunities for building in beneficial biodiversity or geological features as part of good design, and that the SoS should consider whether the Applicant has maximised such opportunities and may use requirements or planning obligations where appropriate in order to ensure that features are delivered where appropriate.	<b>Table 3.3</b> of the Mitigation Schedule (DCO Document <b>6.13</b> ) sets out habitat enhancement works proposed in respect of water voles. For example, enhancement works include the planting of native wetland plants, reeds, grasses, rushes and sedges along new channels; the removal of areas of dense woody vegetation on existing watercourses, to allow increased light to reach watercourses and thereby enable an increase in in-stream and marginal wetland plants; and the restoration of water channels, with deepening or alteration of bank profile where appropriate to maximise their suitability for water voles.  In addition, new biodiversity features, such as trees, hedges, shrubs and species rich grass are included within the landscaping proposals set out in the Landscaping Plans (DCO Document <b>2.9</b> ).
5.34 NPS NN 5.1.17 – 5.1.18 NPS for Ports	<i>"Many individual wildlife species receive protection under other legislative provisions"</i> .  Development should avoid harm to such species habitats. Development should not proceed unless the benefits of development outweigh the harm.	<b>Section 8.3</b> in <b>Chapter 8</b> of the ES identifies the following legislation relevant to the protection of wildlife species; <ul style="list-style-type: none"> <li>• The Conservation of Habitats and Species Regulations (Habitats Regulations) 2017 (as amended);</li> <li>• The Wildlife and Countryside Act (WCA) 1981 (as amended);</li> <li>• The Natural Environment and Rural Communities (NERC) Act 2006; and</li> <li>• The UK Post-2010 Biodiversity Framework (2011-2020) (JNCC and DEFRA, 2012).</li> </ul>

		<p>The likelihood and significance of effects on protected species is assessed in <b>Chapter 8</b>. Subject to the implementation of appropriate mitigation measures relating to the protection of water voles, breeding birds, the benthic and fish community and bats during the construction period, as set out in <b>Sections 5.3 and 5.4</b> the OCoCP (DCO Document <b>6.16</b>), no significant effects upon protected species are predicted as a result of the Scheme.</p>
<p>5.35 – 5.36 NPS NN 5.1.19 NPS for Ports</p>	<p>Applicants should take measures to ensure that species and habitats are protected from the adverse effects of development. The SoS should refuse consent where harm to the habitats or species and their habitats would result, unless the benefits of the development (including need) clearly outweigh that harm.</p> <p><i>“Applicants should include appropriate mitigation measures as an integral part of their proposed development, including identifying where and how these will be secured. In particular, the applicant should demonstrate that:</i></p> <ul style="list-style-type: none"> <li><i>-during construction, they will seek to ensure that activities will be confined to the minimum areas required for the works;</i></li> <li><i>-during construction and operation, best practice will be followed to ensure that</i></li> </ul>	<p>Mitigation and enhancement measures to be undertaken in construction, operation and maintenance of the Scheme are set out in <b>Chapter 8, Section 8.7 and 8.8</b> of the ES, the HRA (DCO Document <b>6.11</b>), Mitigation Schedule (DCO document <b>6.13</b>) and <b>Section 5</b> of the OCoCP (DCO Document <b>6.16</b>). Subject to the implementation of mitigation, <b>Chapter 8</b> of the ES concludes there would be no significant effects on protected species as a result of the Scheme.</p> <p>Mitigation includes the appointment of an Ecological Clerk of Works (<b>Section 5.2</b> in the OCoCP), and the creation of new habitat (secured through the Landscaping Plans, document reference <b>2.9</b>). A Requirement has been prepared to secure the provision of the CoCP (<b>Schedule 2</b> of the draft DCO, DCO Document <b>3.1</b>).</p> <p><b>Paragraph 8.8.74</b> in <b>Chapter 8</b> of the ES sets out habitat enhancements included in the Scheme in respect of water vole. A ‘green route’ between the new roundabout and the crossing on Southtown Road is also included in the Landscaping Plans (DCO Document <b>2.9</b>), in addition to tree, shrub and hedgerow planting elsewhere within the Order Limits.</p>

	<p><i>risk of disturbance or damage to species or habitats is minimised (including as a consequence of transport access arrangements);</i></p> <p><i>-habitats will, where practicable, be restored after construction works have finished;</i></p> <p><i>-developments will be designed and landscaped to provide green corridors and minimise habitat fragmentation where reasonable;</i></p> <p><i>-opportunities will be taken to enhance existing habitats and, where practicable, to create new habitats of value within the site landscaping proposals, for example through techniques such as the 'greening' of existing network crossing points, the use of green bridges and the habitat improvement of the network verge".</i></p> <p>Paragraph 5.1.19 of the PNPS includes almost identical requirements to those above.</p>	<p>The fragmentation of retained habitats and/or severance of wildlife corridors is not anticipated to be impacted by the Scheme (DCO Documents <b>6.1, Table 8.13</b>).</p>
<b>Waste Management</b>		
<p>5.42 NPS NN 5.5.4 NPS for Ports</p>	<p><i>"The applicant should set out the arrangements that are proposed for managing any waste produced. The arrangements described should include information on the proposed waste</i></p>	<p><b>Chapter 15</b> of the ES (DCO Document <b>6.1</b>) states that, for waste, <i>"Construction and demolition waste has been assessed to have an adverse, permanent and direct impact on landfill capacity. Post embedded mitigation, and based on the anticipated quantities of waste to be sent to landfill and the</i></p>

*recovery and disposal system for all waste generated by the development. The applicant should seek to minimise the volume of waste produced and the volume of waste sent for disposal unless it can be demonstrated that the alternative is the best overall environmental outcome”.*

*capacity of regional sites to accept the waste, the effect for both inert and non-inert waste is considered slight (not significant)” (paragraph 15.8.14).* All effects associated with the Operation phase have been assessed as not significant (paragraph 15.8.17).

**Paragraphs 15.8.9 – 15.8.14** outline the process for managing waste produced. Specifically, **paragraph 15.8.12** states that “*the majority of known arisings are anticipated from earthworks during the demolition of existing residential buildings and structures and from the breaking out of highways and junctions, site remediation and preparation. As described in Table 15.14 and Table 15.15, available information suggests that the 85% of the waste from earthworks will be reused on-site or recovered and diverted from landfill”.*

**Section 8.3** of the OCoCP requires that, in preparing the full CoCP, the Contractor should implement a Site Waste Management Plan (SWMP) to encourage the reduction of waste, reuse of waste and recycling of waste.

The OCoCP outlines measures to be included within the SWMP, which are as follows:

- Reduction of materials wastage through good storage and handling;
- Use of modern methods of construction and logistics, encouraging waste reduction and improved materials resource efficiency;
- Entering into agreements with waste contractors to maximise the recovery of segregated site wastes (e.g. timber, brick, plasterboard, metal);

		<ul style="list-style-type: none"> <li>• Ensuring that all suppliers of materials provide returnable or practicably recyclable packaging;</li> <li>• Providing waste minimisation inductions and tool box talks throughout the construction phase; and</li> <li>• Ensuring adequate storage facilities are provided for raw materials and waste streams.</li> </ul>
<p>5.43 NPS NN 5.5.5 NPS for Ports</p>	<p><i>“The Secretary of State should consider the extent to which the applicant has proposed an effective process that will be followed to ensure effective management of hazardous and non-hazardous waste arising from the construction and operation of the proposed development. The Secretary of State should be satisfied that the process sets out:</i></p> <p><i>-any such waste will be properly managed, both on-site and off-site;</i></p> <p><i>-the waste from the proposed facility can be dealt with appropriately by the waste infrastructure which is, or is likely to be, available. Such waste arisings should not have an adverse effect on the capacity of existing waste management facilities to deal with other waste arisings in the area; and</i></p> <p><i>-adequate steps have been taken to minimise the volume of waste arisings, and of the volume of waste arisings sent to disposal, except where an alternative is</i></p>	<p><b>Chapter 15</b> of the ES considers the volume of waste (inert, non-hazardous and hazardous) anticipated to be generated by the Scheme and determines the potential impact of each waste type on the remaining landfill capacity in the region. This assessment has been completed in the context of the capacity of recovery and waste management facilities in the East of England region.</p> <p><b>Paragraph 15.4.14</b> of the ES outlines the assessment process, which included:</p> <ul style="list-style-type: none"> <li>• A review of relevant waste legislation, policies and guidance, to identify material use and waste management objectives, commitments and targets;</li> <li>• To identify the types and quantities of waste;</li> <li>• To evaluate the impacts of the Scheme against the regional and national materials markets and the capacity of regional (or if appropriate, national) landfills;</li> <li>• To identify the opportunities to eliminate, reduce, reuse, recycle or recover material resources, site arisings and (potential) waste, in accordance with industry good practice; and</li> <li>• To identify the viable circular economy opportunities in design and construction.</li> </ul>

	<i>the most sustainable outcome overall</i> ".	<p>Materials required for importation as part of the construction phase are outlined in <b>Table 0.13</b> of the ES.</p> <p>In addition, <b>Table 0.12</b> defines the potential impacts and significant effects of consuming material resources and disposing of waste.</p> <p><b>Paragraph 15.8.18</b> of the ES states, "<i>All requirements for monitoring are included in the Outline CoCP (document reference 6.16) which is secured by DCO requirement and will be subsequently developed by the Contractor into a full CoCP. The full CoCP, once detailed, will provide a review, monitoring and audit mechanism to determine the effectiveness of and compliance with environmental control measures, which includes the preparation and subsequent review of an SWMP and an MMP</i>".</p>
<b>Civil and military aviation and defence interests</b>		
5.55 NPS NN	<i>"Where the proposed development may have an effect on civil or military aviation and/or other defence assets, an assessment of potential effects should be carried out"</i> .	The Scheme is not anticipated to have any impacts upon civil or military aviation and/or other defence assets, as confirmed in consultation responses from MoD and National Air Traffic Services (NATS) (as per <b>Table 9-6</b> of the Consultation Report, DCO Document <b>5.1</b> ). The Civil Aviation Authority did not submit a response to statutory consultation ( <b>Table 8-4</b> of the Consultation Report).
5.56 NPS NN	<i>"The applicant should consult the MoD, CAA, National Air Traffic Services (NATS) and any aerodrome – licensed or otherwise – likely to be affected by the proposed development in preparing an assessment of the proposal on aviation or</i>	As per response given above to paragraph 5.55 of the NPS NN.

	<i>other defence interests”.</i>	
5.57 NPS NN	<i>“Any assessment on aviation or other defence interests should include potential impacts during construction and operation of the project upon the operation of CNS infrastructure, flight patterns (both civil and military), other defence assets and aerodrome operational procedures”.</i>	As per response given above to paragraph 5.55 of the NPS NN.
5.58 NPS NN	<i>“If any relevant changes are made to proposals for an NSIP during the pre-application period or before the end of the examination of an application, it is the responsibility of the applicant to ensure that the relevant aviation and defence consultees are informed as soon as reasonably possible”.</i>	Not relevant at this time.
5.62 NPS NN	<i>“Where, after reasonable mitigation, operational changes and planning obligations and requirements have been proposed, development consent should not be granted if the Secretary of State considers that:  -a development would prevent a licensed aerodrome from maintaining its licence;  -the benefits of the proposed development are outweighed by the harm to aerodromes serving business, training or emergency service needs; or</i>	As per response given above to paragraph 5.55 of the NPS NN.



	<i>-the development would significantly impede or compromise the safe and effective use of defence assets or significantly limit military training”.</i>	
<b>Coastal Change</b>		
5.67 NPS NN	For infrastructure projects proposed on the coast, coastal change is a key consideration and, under paragraph 5.67 of the NPS NN, development should reduce risk from coastal change by avoiding inappropriate development in vulnerable areas, or adding to the impacts of physical changes to the coast	The Flood Risk Assessment (FRA) (ES Appendix <b>12B</b> ), in addition to <b>Chapters 11</b> (Road Drainage and the Water Environment) and <b>13</b> (Climate Change) of the ES, identifies the need to locate development away from vulnerable coastal change areas. The Scheme is located 2.5km upstream from the outlet to the North Sea at Gorleston-on-Sea. Paragraph <b>11.4.6 of Chapter 11</b> states “ <i>The findings of the sediment transport assessment (Appendix 11C) show the Scheme will only result in localised impacts on the hydromorphological regime of the River Yare and the effects will not extend to cause any significant changes to coastal processes</i> ”. On this basis <b>Chapter 11</b> concludes that effects arising from the Scheme on coastal processes would be insignificant.
5.68 NPS NN 5.3.2 NPS for Ports	<i>“The construction of national networks infrastructure on the coast may involve, for example, dredging, dredge spoil deposition, marine landing facility construction, and flood and coastal protection measures which could result in direct effects on the coastline, seabed, marine ecology and biodiversity, and the historic environment”.</i>	A Habitats Regulation Assessment (HRA) is provided in DCO Document <b>6.11</b> . The HRA concludes that the Scheme, alone or in combination with any other plan or proposal, would not affect the integrity of any European Site.  As stated above, <b>paragraph 11.4.6 ES Chapter 11</b> states “ <i>The findings of the sediment transport assessment (Appendix 11C) show the Scheme will only result in localised impacts on the hydromorphological regime of the River Yare and the effects will not extend to cause any significant changes to coastal processes</i> ”.

		<p>Dredging is not proposed as part of the construction of the new crossing. Cofferdams would be formed within the channel, and any excavated material removed from site and reused/disposed at an appropriately licensed facility.</p> <p>The River Yare channel is affected by continuous dredging activity, where the river bed is lowered to around -7m AOD and the channel is characterised by steep banks (walls). Dredging may be required during operation to remove any sediment build up within the navigation channel. Any operational dredging will be incorporated into the current dredging regime along the River Yare and is not expected to significantly alter the current dredging regime (<b>paragraph 11.7.3, Chapter 11</b>). Protective provisions are included in the draft DCO (DCO Document <b>3.1</b>) relating to the Great Yarmouth Port Authority's continued dredging of the river for navigational purposes.</p>
5.3.4 NPS for Ports	Where relevant, applicants should undertake coastal geomorphological and sediment transfer modelling to predict and understand impacts and help identify relevant mitigating or compensatory measures.	<p>The Sediment Transport Assessment (<b>Appendix 11C, DCO Document 6.2</b>) concludes that there is a negligible change in the overall flow of sediment along the River Yare and the wider coastline during the operational phase of the Scheme. <b>Paragraph 7.1.6</b> states <i>"this means that the overall volume of sediment transport in the estuary is not affected by the Scheme simply because the volume taken up by the Piers is negligible when compared to the estuary as a whole"</i>. The inclusion of relevant mitigation for potential temporary construction impacts are also contained within <b>Chapter 11</b> of the ES.</p>
5.3.5 NPS for Ports	<i>"The ES (see section 4.7) should include an assessment of the effects on the</i>	<b>Chapter 11</b> of the ES contains an assessment of the potential effects of the Scheme on coastal change. Potential

coast. In particular, applicants should assess:

*-the impact of the proposed project on coastal processes and geomorphology, including by taking account of potential impacts from climate change. If the development will have an impact on coastal processes, the applicant must demonstrate how the impacts will be managed to minimise adverse impacts on other parts of the coast;*

*-the implications of the proposed project on strategies for managing the coast, as set out in Shoreline Management Plans, any relevant marine plans, River Basin Management Plans and capital programmes for maintaining flood and coastal defences;*

*-the effects of the proposed project on marine ecology, biodiversity and protected sites;*

*-the effects of the proposed project on maintaining coastal recreation sites and features; and*

*-the vulnerability of the proposed development to coastal change, taking account of climate change, during the project's operational life and any*

hydromorphological effects associated with the in-channel structures are not expected to affect coastal processes, such as sediment transport or supply (**Paragraph 11.4.6**). As such, the potential effects on coastal change have not been considered in detail as part of the ES.

The Drainage Strategy (ES, **Appendix 12C**) confirms the design parameters that must be adopted in the Contractor's detailed design and includes for "an allowance for climate change will also be applied to the drainage design by increasing the rainfall intensity by 40%".

**Chapter 11** of the ES uses the Water Framework Directive (WFD) assessment (**Appendix 11E**, DCO Document **6.2**) to assess the Scheme against the key objectives of the WFD. **Paragraph 1.6.5** of the WFD Assessment states "the Scheme will not prevent the achievement of the wider WFD objectives in the Anglian River Basin District and is not predicted to have an impact on any other waterbody within the Anglian River Basin District or the proposed mitigation measures to achieve Good status".

**Paragraph 11.4.6** in **Chapter 11** of the ES states that the Scheme is not expected to cause significant changes to coastal processes, such as sediment transport, erosional and depositional patterns and beach development along the Great Yarmouth shoreline.

The HRA (DCO Document **6.11**) concludes that the Scheme, alone or in combination with any other plan or proposal, would not affect the integrity of any European Site.

As set out in **Section 8.10** of the ES **Chapter 8**, subject to the

	<i>decommissioning period”.</i>	<p>implementation of appropriate mitigation measures relating to the protection of water voles, breeding birds, the benthic and fish community and bats during the construction period, as set out in <b>Section 5</b> of the OCoCP (DCO Document <b>6.16</b>), no significant effects upon Protected Species are predicted as a result of the Scheme.</p> <p><b>Paragraphs 11.7.1</b> and <b>11.8.9</b> of the ES recognises the potential impacts construction and in particular demolition can have on particle emission and their detrimental effect on air and water features. Mitigation measures included to control the emission of dust during construction are set out in <b>Section 3</b> of the OCoCP (DCO Document <b>6.16</b>).</p>
5.71 NPS NN	<i>“Applications for development in a Coastal Change Management Area (CCMA) should make it clear why there is a need for it to be located in a CCMA. For developments in a CCMA, applicants should undertake an assessment of the vulnerability of the proposed development to coastal change, taking account of climate change, during the project’s operational life”.</i>	CCMAs are to be allocated in Part 2 of the Great Yarmouth Local Plan: Detailed Policies and Proposals (pending adoption). The only CCMA identified is Scratby Beach 10km north of the Scheme. At the time of submission, Part 2 of the Local Plan remains in preparation stage. The Draft Proposals Map does not allocate the any land within the Application Site as CCMA.
5.72 NPS NN 5.3.6 NPS for Ports	<i>“For any projects involving dredging or disposal into the sea, the applicant should consult the Marine Management Organisation (MMO), and where appropriate, for cross-boundary impacts, Natural Resource Wales and Scottish Natural Heritage, at an early stage. The</i>	<p>Neither dredging nor disposal at sea is proposed as part of the construction of the Scheme.</p> <p>Dredging may be required during operation to remove any sediment build up within the navigation channel. Any operational dredging will be incorporated into the current dredging regime along the River Yare and is not expected to significantly alter the current dredging regime. Protective</p>

	<i>applicant should also consult the MMO on projects which could impact on coastal change, since the MMO may also be involved in considering other projects which may have related coastal impacts”.</i>	<p>provisions are included in the draft DCO (DCO Document <b>3.1</b>) relating to the Great Yarmouth Port Authority’s continued dredging of the river for navigational purposes.</p> <p>Consultation has been undertaken with the MMO regarding the Deemed Marine Licence (DML) and ecological assessment. The details of consultation are defined in <b>Table 11.4</b> in <b>Chapter 11</b> of the ES. The draft DCO (DCO Document <b>3.1</b>) includes provision for a Deemed Marine Licence, referred to in <b>Article 56</b> of the draft DCO. The proposed DML wording is set out in <b>Schedule 13</b> of the draft DCO, which the MMO has been consulted on.</p>
5.73 NPS NN	<i>“The applicant should examine the broader context of coastal protection around the proposed project, and the influence in both directions, i.e. coast on project, and project on coast”.</i>	<b>Paragraph 11.4.6</b> in <b>Chapter 11</b> of the ES states that the Scheme is not expected to cause significant changes to coastal processes, such as sediment transport, erosional and depositional patterns and beach development along the Great Yarmouth shoreline.
5.74 NPS NN 5.3.7 NPS for Ports	<i>“The applicant should be particularly careful to identify any effects of physical changes on the integrity and special features of Marine Conservation Zones, candidate marine Special Areas of Conservation (SACs), coastal SACs and candidate coastal SACs, coastal Special Protection Areas (SPAs) and potential coastal SPAs, Ramsar sites, Sites of Community Importance (SCIs) and potential SCIs and sites of Special Scientific Interest. For any projects affecting the above marine protected</i>	<p>The Principal Application Site is within the Outer Thames Estuary SPA. In addition, the Southern North Sea cSAC is located approximately 500m to the east of the Principal Application Site. Within <b>Chapter 8</b>, and the HRA (DCO Document <b>6.11</b>), the full list of designated sites within the extended study area is set out in response to NPS NN paragraph 5.27.</p> <p>Due to its location within the SPA, and in the vicinity of other sites protected by the Habitat Regulations, a HRA has been carried out. The HRA (DCO Document <b>6.11</b>) concludes that the Scheme, alone or in combination with any other plan or proposal, would not affect the integrity of any European site.</p>

	<i>areas, the applicant should consult Natural England and where appropriate, for cross-boundary impacts, Natural Resource Wales and Scottish Natural Heritage, at an early stage”.</i>	Natural England’s (NE) advice has been sought throughout the design of the Scheme. Details of consultation with Natural England in respect of sites protected under the Habitat Regulations are set out in <b>Table 3.1</b> of the HRA.
5.75 NPS NN	<p>When assessing applications in a CCMA, the Secretary of State should not grant development consent unless it is demonstrated that the development:</p> <ul style="list-style-type: none"> <li>• will be safe over its planned lifetime and will not have an unacceptable impact on coastal change;</li> <li>• will not compromise the character of the coast covered by designations;</li> <li>• provides wider sustainability benefits; and</li> <li>• does not hinder the creation and maintenance of a continuous signed and managed route around the coast.</li> </ul>	The Scheme is not located in a CCMA and is therefore deemed to be compliant with the requirements of paragraph 5.75 of the NPS NN.
5.77 NPS NN	The Marine and Coastal Access Act 2009 provides for the preparation of a Marine Policy Statement (MPS) and a number of marine plans. The Secretary of State must have regard to the MPS and applicable marine plans in taking any decision which relates to the exercise of any function. The relevant information will include Shoreline Management Plans.	<p>An assessment of the Scheme’s compliance with the Marine Policy Statement and East Inshore Marine Plan is set out in <b>Section 7</b> of the Case for the Scheme.</p> <p><b>Paragraph 11.4.6</b> in <b>Chapter 11</b> of the ES states that the Scheme is not expected to cause significant changes to coastal processes, such as sediment transport, erosional and depositional patterns and beach development along the Great Yarmouth shoreline.</p>

	<p>capable of affecting any part of the UK marine area. In the event of a conflict between any of these marine planning documents and this NPS, the NPS prevails for the purposes of decision making given the national significance of the infrastructure.</p>	<p><b>Chapter 12</b> (Flood Risk) of the ES and the FRA (Appendix <b>12B</b>) take account of the Kelling to Lowestoft Ness Shoreline Management Plan (SMP).</p>
<p>5.78 NPS NN</p>	<p>Substantial weight should be attached to the risks of flooding and coastal erosion. The applicant must demonstrate that full account has been taken of the policy on assessment and mitigation in paragraphs 5.91- 5.114 of this NPS, taking account of the potential effects of climate change on these risks.</p>	<p><b>Paragraph 11.4.6</b> in <b>Chapter 11</b> of the ES states that the Scheme is not expected to cause significant changes to coastal processes, such as sediment transport, erosional and depositional patterns and beach development along the Great Yarmouth shoreline.</p> <p>Flood risk to the Scheme and the impact of the Scheme on flood risk has been assessed in detail in the Flood Risk Assessment (FRA, Appendix <b>12B</b>). The FRA has assessed the Scheme against present day flooding and flood risk in the future as a result of climate change.</p> <p>In summary, the FRA concludes that the most significant source of flooding, in Great Yarmouth as a whole and to the Principal Application Site, is tidal flooding (<b>paragraph 9.1.5</b>). The FRA has shown that the bridge deck itself is not at risk of tidal flooding even in the extreme climate change scenarios tested, however the approach roads to the bridge are shown to be at risk even in the present day flooding scenarios tested (<b>paragraph 9.1.9</b>). With the adoption of mitigation, namely the implementation of the Emergency Preparedness Plan secured as a Requirement in the draft DCO (DCO Document <b>3.1</b>), the Scheme would have slight adverse effects on flood risk at worst, as confirmed in <b>Table 12.18</b> of the Chapter 12 (Flood</p>

		<p>Risk). The impact of the Scheme is reduced for the climate change scenarios where the base flood level is higher than for the present day (<b>paragraphs 9.1.10 – 9.11</b>). Given the existing level of tidal flood risk within Great Yarmouth, as detailed in the FRA, it has been deemed impractical to provide mitigation to reduce the modest impact of the Scheme on tidal flooding within Great Yarmouth (<b>paragraph 9.1.19</b>).</p> <p>The provision of a Flood Management Plan by the Contractor in their full CoCP is included for in <b>Section 7.2</b> of the OCoCP (DCO Document <b>6.16</b>).</p> <p>The FRA concludes that <i>“The Principal Application Site was found to be at risk of surface water flooding and as the Scheme will result in an increase in impermeable area within the Principal Application Site, the Scheme will increase surface runoff from the area. Embedded mitigation within the Scheme design will be included to manage surface water runoff from the Principal Application Site. The risk of surface water flooding to the Scheme during construction is considered to be negligible given the relatively short duration of the construction phase”</i>. However, The Drainage Strategy (<b>Appendix 12C</b> in DCO Document <b>6.2</b>) provides details of how surface water runoff will be managed within the Principal Application Site to avoid an increase in surface water flood risk elsewhere.</p>
<p>5.79 NPS NN 5.3.15 NPS for Ports</p>	<p><i>“Applicants should propose appropriate mitigation measures to address adverse physical changes to the coast in consultation with the MMO, the Environment Agency, Natural England,</i></p>	<p>As per the conclusions drawn in <b>Chapter 11</b> of the ES, the Scheme is not expected to affect coastal processes, such as sediment transport or supply, along the Great Yarmouth shoreline. <b>Chapter 11</b> considers there to be a risk that contaminated sediments in the River Yare could be mobilised</p>



	<p><i>Natural Resource Wales, Scottish Natural Heritage, Local Planning Authorities, other statutory consultees, Coastal Partnerships and other coastal groups, as it considers appropriate”.</i></p>	<p>during construction of the Scheme and potentially migrate downstream to impact on the coastal water quality. Mitigation has been formulated in consultation with the MMO, EA, Natural England and Lead Local Flood Authority (Norfolk County Council) (<b>Table 11.4</b>).</p> <p>Mitigation is detailed in <b>paragraph 11.7.1</b> of <b>Chapter 11</b> of the ES and set out in <b>Table 3.6</b> of the Mitigation Schedule (DCO document <b>6.13</b>). A Requirement is included in <b>Schedule 2</b> of the draft DCO (DCO Document <b>3.1</b>) to secure the implementation of measures set out in the OCoCP within a full CoCP to be provided by the Contractor.</p> <p>The Applicant is aiming to agree SoCGs with the EA, Natural England, Norfolk County Council and the IDB. Work on the SoCGs are underway, and the Applicant envisages that the SoCGs will be progressed and developed throughout the DCO examination period.</p>
<p><b>Dust, Odour, Artificial Light, Smoke, Steam (NPS NN) / Dust, Odour, Artificial Light, Smoke and Steam and Insect Infestation (NPS for Ports)</b></p>		
<p>5.81 – 5.82 NPS NN</p>	<p><i>“Because of the potential effects of these emissions (odour, dust, steam, smoke and artificial light) and in view of the availability of the defence of statutory authority against nuisance claims described previously, it is important that the potential for these impacts is considered by the applicant in their application, by the Examining Authority in examining applications and by the Secretary of State in taking decisions on</i></p>	<p>The OCoCP identifies mitigation in relation to the control of fugitive air quality emissions during construction (DCO document <b>6.16</b>).</p> <p>For example, as set out in <b>paragraph 3.2.2</b> of the OCoCP, fine material will not be stockpiled to an excessive height in order to prevent exposure to wind or dust nuisance.</p> <p><b>Section 3.4</b> in the Statutory Nuisance Statement concludes that new lighting introduced by the Scheme is “<i>unlikely to significantly increase the perception of lighting in the construction or operational phases and is not predicted to give</i></p>

	development consents”.	rise to any nuisance, nor be prejudicial to health under section 79(1)(fb) of the Environmental Protection Act 1990”.
5.84 – 5.86 NPS NN 5.8.4 – 5.8.6 NPS for Ports	<p>“Where the development is subject to an EIA, the applicant should assess any likely significant effects on amenity from emissions of odour, dust, steam, smoke and artificial light and describe these in the ES”.</p> <p><i>In particular, the assessment provided by the applicant should describe:</i></p> <ul style="list-style-type: none"> <li>-the type and quantity of emissions;</li> <li>-aspects of the development which may give rise to emissions during construction, operation and decommissioning;</li> <li>-premises or locations that may be affected by the emissions;</li> <li>-effects of the emission on identified premises or locations; and</li> <li>-measures to be employed in preventing or mitigating the emissions.</li> </ul> <p><i>The applicant is advised to consult the relevant local planning authority and, where appropriate, the Environment Agency about the scope and methodology of the assessment”.</i></p> <p><i>Paragraph 5.8.4 – 5.8.5 of the NPS for Ports identifies that port infrastructure has</i></p>	<p><b>Chapters 6, 7 and 10</b> of the ES provide an assessment of likely significant effects on amenity from emissions of odour, dust, steam, smoke and artificial light as a result of the Scheme. Each Chapter sets out the consultation undertaken with the relevant authority / agency in order to agree the scope and methodology of the assessments.</p> <p>In respect of air quality, <b>Chapter 6</b> of the ES identifies 10,721 residential dwellings that have the potential to be affected by the Scheme. In addition, cumulative effects upon residential amenity are considered in <b>Chapter 19</b> (Cumulative Effects) of the ES.</p> <p><b>Section 3</b> of the <b>OCoCP</b> sets out measures to be implemented within the Contractor’s full CoCP to mitigate the effects of dust related emissions during construction.</p> <p>Dust and PM<sub>10</sub> monitoring is also included for within <b>paragraph 3.3.1 and 3.3.2</b> of the OCoCP for medium to high risk sites, as defined by IAQM.</p> <p><b>Chapter 6</b> concludes that through adopting the significance criteria in the guidance provided by IAQM, the local air quality impacts associated with the operation of the Scheme (see <b>Paragraph 6.8.60</b>) would not constitute a significant environmental effect.</p> <p>The Statutory Nuisance Statement identifies the potential for insects emanating from relevant industrial, trade or business premises and being prejudicial to health or a nuisance (<b>Paragraph 2.1.2</b>), however, no specific mitigation is</p>

	<i>the potential for infestation of insects.</i>	proposed.
5.87 NPS NN	The Secretary of State should be satisfied that all reasonable steps have been taken, and will be taken, to minimise any detrimental impact on amenity from emissions of odour, dust, steam, smoke and artificial light. This includes the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.	See response to 5.84-5.86 of the NPS NN.
5.88 NPS NN	If development consent is granted for a project, the Secretary of State should consider whether there is a justification for all of the authorised project (including any associated development) being covered by a defence of statutory authority against nuisance claims. If the Secretary of State cannot conclude that this is justified, then the defence should be disapplied, in whole or in part, through a provision in the Development Consent Order.	<p>The Statutory Nuisance Statement (DCO document <b>6.10</b>) identifies the matters set out in Section 79(1) of the Environmental Protection Act (EPA) 1990 in respect of statutory nuisances and considers whether the Scheme would engage one or more of those matters.</p> <p>With mitigation in place, as outlined in the SNS, it is not expected that there would be a breach of Section 79(1) of the EPA 1990 during construction or operational activities. Construction activities that have the potential to create a nuisance will be controlled through the measures set out in the OCoCP (DCO Document <b>6.16</b>). A Requirement is included in <b>Schedule 2</b> of the draft DCO (DCO Document <b>3.1</b>) to secure the implementation of measures set out in the OCoCP within a full CoCP to be provided by the Contractor.</p>
5.89 NPS NN 5.8.9 – 5.8.10 NPS for Ports	Paragraph 5.89 states that the applicant should provide sufficient information to show that any necessary mitigation will	<b>Table 3.1</b> in the Mitigation Schedule (DCO document <b>6.13</b> ) sets out measures to mitigate air quality effects during the construction and operation of the Scheme.

	<p>be put into place. Such mitigation should cover both constructional and operation phases of development and should consider mitigation concerning emissions of odour, dust, steam, smoke, artificial light from the development to reduce any loss to amenity which might arise during the construction and operation of the development. A construction management plan may be utilised to organise such mitigation techniques.</p>	<p>In addition, <b>Schedule 2</b> of the draft DCO (DCO Document <b>3.1</b>) includes a Requirement to ensure the implementation of measures set out in the OCoCP within a full CoCP to be provided by the Contractor.</p> <p><b>Section 3.4</b> in the Statutory Nuisance Statement concludes that new lighting introduced by the Scheme is “<i>unlikely to significantly increase the perception of lighting in the construction or operational phases and is not predicted to give rise to any nuisance, nor be prejudicial to health under section 79(1)(fb) of the Environmental Protection Act 1990</i>”.</p>
<p><b>Flood Risk</b></p>		
<p>5.91 – 5.93 NPS NN 5.2.4 NPS for Ports</p>	<p>The National Planning Policy Framework (paragraphs 100 to 104) makes clear that inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk. But where development is necessary, it should be made safe without increasing flood risk elsewhere.</p> <p>Para 5.92 of NPS NN outlines the locations where applications for projects should be accompanied by a Flood Risk Assessment (“FRA”)</p> <p>Para 5.93 states that an FRA “<i>should identify and assess the risks of all forms of flooding to and from the project and demonstrate how these flood risks will be managed, taking climate change into</i></p>	<p>An FRA has been undertaken (ES Appendix <b>12B</b>). The FRA, along with Chapter 12 of the ES, considers the risk of all forms of flooding arising from the project. This includes fluvial, surface and coastal flood risks. The FRA should be read in conjunction with the ES (<b>Chapter 12</b>) and Drainage Strategy (Appendix <b>12C</b>, DCO Document <b>6.2</b>). The FRA also considers mitigation, which is set out in <b>Section 7</b> of the OCoCP (DCO document <b>6.16</b>) and in <b>Table 3.7</b> of the Mitigation Schedule (DCO document <b>6.13</b>). A Requirement (<b>Schedule 2</b> of the draft DCO, DCO Document <b>3.1</b>) has been prepared to secure the submission of the measures set out in the OCoCP within a full CoCP.</p> <p>The Scheme is predominantly located within Flood Zone 3 (3a). A sequential test was applied and there is no opportunity to locate the development in Flood Zones 1 or 2 (as reported in <b>paragraph 4.2.3</b> of the FRA. The Scheme is classified as essential infrastructure (in accordance with the PPG) and</p>

*account*".

therefore the Exception Test is applicable.

Part 1 of the Exception Test, which is provided in response to paragraph 5.106 of this document, summarises the wider sustainability benefits to the community that outweigh flood risk. The FRA forms Part 2 of the Exception Test and assesses the risk of flooding to the Scheme over its lifetime and on flood risk elsewhere, taking into account the future implications of climate change.

The design life of the Scheme is 120 years and the FRA deems it appropriate to use the year 2140 for future flood scenarios taking into account climate change as requested by the EA (**paragraph 3.1.4** of the FRA). The UKCP09 were considered as part of this assessment but updated climate projections, the UK Climate Projections 2018 (UKCP18) were released in November 2018. The EA stated in its consultation response in October 2018 that if the UKCP18 guidance was published before the FRA was finalised, the assessment must consider the new guidance. The UKCP18 guidance has been used to inform the climate change sea level rise scenarios included in the FRA.

In summary, the FRA concludes that the most significant source of flooding, in Great Yarmouth as a whole and to the Principal Application Site, is tidal flooding (**paragraph 9.1.5**). The FRA has shown that the bridge deck itself is not at risk of tidal flooding even in the extreme climate change scenarios tested, however the approach roads to the bridge are shown to be at risk even in the present day flooding scenarios tested (**paragraph 9.1.9**). With the adoption of mitigation, namely the implementation of the Emergency Preparedness Plan set out

in **Table 3.7** of the Mitigation Schedule (DCO Document **6.13**), and secured as a Requirement in the draft DCO (DCO Document **3.1**), the Scheme would have slight adverse effects on flood risk at worst, as confirmed in **Table 12.18** of ES Chapter 12 (Flood Risk). The impact of the Scheme is reduced for the climate change scenarios where the base flood level is higher than for the present day (**paragraphs 9.1.10 – 9.1.11**). Given the existing level of tidal flood risk within Great Yarmouth, as detailed in the FRA, it has been deemed impractical to provide mitigation to reduce the modest impact of the Scheme on tidal flooding within Great Yarmouth (**paragraph 9.1.19**).

The requirement to submit an Emergency Preparedness and Response Plan for approval in writing by the County Planning Authority following consultation with Great Yarmouth Borough Council, the lead local flood authority and the Environment Agency, is included in **Schedule 2** of the DCO (DCO Document **3.1**).

The provision of a Flood Management Plan by the Contractor in their full CoCP is included for in **Section 7.2** of the OCoCP (DCO Document **6.16**).

The FRA concludes that surface water runoff from the Principal Application Site will increase as a result of the Scheme, however the Drainage Strategy (**Appendix 12C** in DCO Document **6.2**) provides details of how surface water runoff will be managed within the Principal Application Site to avoid an increase in surface water flood risk elsewhere. All sources of flooding are assessed in the FRA but the risk of flooding to the Application Site is negligible for all sources

		<p>apart from tidal and surface water flooding.</p> <p>On this basis it is considered that the wider sustainability benefits of the Scheme, set out in response to paragraph 5.106 in NPS NN below, outweigh the flood risk.</p>
<p>5.94 NPS NN 5.2.5 NPS for Ports</p>	<p>Paragraph 5.94 states that in preparing an FRA the applicant should consider multiple targets, in regard to the Proposed Development, these included;</p> <p><i>“consider the risk of all forms of flooding arising from the project (including in adjacent parts of the United Kingdom), in addition to the risk of flooding to the project, and demonstrate how these risks will be managed and, where relevant, mitigated, so that the development remains safe throughout its lifetime;</i></p> <p><i>take the impacts of climate change into account, clearly stating the development lifetime over which the assessment has been made;</i></p> <p><i>consider the vulnerability of those using the infrastructure including arrangements for safe access and exit;</i></p> <p><i>include the assessment of the remaining (known as ‘residual’) risk after risk reduction measures have been taken into account and demonstrate that this is acceptable for the particular project;</i></p>	<p>See response to paragraph 5.91-93 of the NPS NN above.</p> <p>The FRA has been prepared in accordance with the requirements of paragraph 5.25 of the NPS for Ports.</p>

*consider if there is a need to remain operational during a worst case flood event over the development's lifetime;*

*provide the evidence for the Secretary of State to apply the Sequential Test and Exception Test, as appropriate”.*

Paragraph 5.2.5 of the NPS for Ports contains additional requirements for FRA, indicating that the minimum requirements for FRAs are that they should:

*“be proportionate to the risk and appropriate to the scale, nature and location of the project;*

*consider the risk of flooding arising from the project, in addition to the risk of flooding to the project;*

*take the impacts of climate change into account, clearly stating the development lifetime over which the assessment has been made;*

*be undertaken by competent people, as early as possible in the process of preparing the proposal;*

*consider both the potential adverse and beneficial effects of flood risk management infrastructure, including raised defences, flow channels, flood storage areas and other artificial features,*



*together with the consequences of their failure;*

*consider the vulnerability of those using the site, including arrangements for safe access;*

*consider and quantify the different types of flooding (whether from natural or human sources and including joint and cumulative effects) and identify flood risk reduction measures, so that assessments are fit for the purpose of the decisions being made;*

*consider the effects of a range of flooding events, including extreme events on people, property, the natural and historic environment and river and coastal processes;*

*consider how the ability of water to soak into the ground may change with development, along with how the proposed layout of the project may affect drainage systems;*

*include the assessment of the remaining (known as 'residual') risk after risk reduction measures have been taken into account and demonstrate that this is acceptable for the particular project;*

*consider if there is a need to be safe and*

	<p><i>remain operational during a worst case flood event over the development's lifetime; and</i></p> <p><i>be supported by appropriate data and information, including historical information on previous events”.</i></p>	
<p>5.96 NPS NN 5.2.7 NPS for Ports</p>	<p>Paragraph 5.96 states that “<i>for projects which may be affected by, or may add to, flood risk are advised to seek sufficiently early pre-application discussions with the Environment Agency, and, where relevant, other flood risk management bodies such as lead local flood authorities, Internal Drainage Boards, sewerage undertakers, highways authorities and reservoir owners and operators</i>”. Such consultation should be used to identify possibility and extent and nature of the flood risk, to help coordinate the FRA.</p>	<p>The EA has been consulted on the scope of the FRA, as set out in <b>Table 12-4</b> in <b>Chapter 12</b> of the ES. In addition, Anglian Water (AW) and the Internal Drainage Board (IDB) have also been consulted during the design stage. The Applicant is aiming to agree Statements of Common Ground (SoCGs) with the EA, AW and the IDB. Work on the SoCGs is underway, and the Applicant envisages that the SoCGs will be progressed and developed throughout the DCO examination period.</p>
<p>5.98 NPS NN</p>	<p><i>Where flood risk is a factor in determining an application for development consent, the Secretary of State should be satisfied that, where relevant:</i></p> <ul style="list-style-type: none"> <li>• <i>the application is supported by an appropriate FRA;</i></li> <li>• <i>the Sequential Test (see the National Planning Policy Framework) has been</i></li> </ul>	<p>A FRA has been submitted in support of the DCO application, in which details of the application of the Sequential Test are included (<b>paragraph 4.2.3</b> in the FRA). Part 1 of the Exception Test is included in response to NPS NN Paragraph 5.106 below and the FRA forms Part 2 of the Exception Test.</p>

	<i>applied as part of site selection and, if required, the Exception Test (see the National Planning Policy Framework).</i>	
5.99 NPS NN	<p><i>When determining an application the Secretary of State should be satisfied that flood risk will not be increased elsewhere and only consider development appropriate in areas at risk of flooding where (informed by a flood risk assessment, following the Sequential Test and, if required, the Exception Test), it can be demonstrated that:</i></p> <ul style="list-style-type: none"> <li><i>• within the site, the most vulnerable development is located in areas of lowest flood risk unless there are overriding reasons to prefer a different location; and</i></li> <li><i>• development is appropriately flood resilient and resistant, including safe access and escape routes where required, and that any residual risk can be safely managed, including by emergency planning; and priority is given to the use of sustainable drainage systems.</i></li> </ul>	See response to paragraphs 5.91-93 of the NPS NN.
5.100 NPS NN 5.2.10 NPS for Ports	<i>“For construction work which has drainage implications, approval for the project’s drainage system will form part of any development consent issued by the Secretary of State. The Secretary of State</i>	<p>A Drainage Strategy (<b>Appendix 12C</b> in DCO Document <b>6.2</b>) has been prepared and provides details of the attenuation required as part of the Scheme.</p> <p><b>Paragraph 1.6.1</b> of the Drainage Strategy sets out the Design</p>

	<p><i>will therefore need to be satisfied that the proposed drainage system complies with any National Standards published by Ministers under Paragraph 5(1) of Schedule 3 to the Flood and Water Management Act 2010.93 In addition, the development consent order, or any associated planning obligations, will need to make provision for the adoption and maintenance of any Sustainable Drainage Systems (SuDS), including any necessary access rights to property. The Secretary of State, should be satisfied that the most appropriate body is being given the responsibility for maintaining any SuDS, taking into account the nature and security of the infrastructure on the proposed site. The responsible body could include, for example, the applicant, the landowner, the relevant local authority, or another body such as the Internal Drainage Board”.</i></p>	<p>Standards to be used to develop the drainage strategy into a detailed design. They include:</p> <ul style="list-style-type: none"> <li>• Design Manual for Roads and Bridges - Volume 4 Section 2 based on HD33/16, HA 107/04 and HD45/09;</li> <li>• CIRIA C753 - The SuDS Manual;</li> <li>• Sewers for Adoption 7th Edition 2012;</li> <li>• Guidance on Norfolk County Councils Lead Local Flood Authority role as Statutory Consultee to Planning (located on Norfolk County Council's Information for Developers webpage); and</li> <li>• DEFRA - Non-statutory technical standards for sustainable drainage systems.</li> </ul> <p>A Requirement (<b>Schedule 2</b> of the draft DCO, DCO Document <b>3.1</b>) has been prepared to secure the submission of a surface water drainage system, to be provided in accordance with the Drainage Strategy, and provide a timetable for implementation (Appendix <b>12C</b> in DCO Document <b>6.2</b>).</p>
5.101 NPS NN	<p>If the Environment Agency continues to have concerns and objects to the grant of development consent on the grounds of flood risk, the Secretary of State can grant consent, but would need to be satisfied before deciding whether or not to do so that all reasonable steps have been taken by the applicant and the</p>	<p>The Applicant is aiming to agree a Statement of Common Ground (SoCG) with the EA. Work on the SoCG is underway, and the Applicant envisages that the SoCG will be progressed and developed throughout the DCO examination period.</p>

	Environment Agency to try and resolve the concerns.	
5.102 NPS NN	<p>The Secretary of State should expect that reasonable steps have been taken to avoid, limit and reduce the risk of flooding to the proposed infrastructure and others. However, the nature of linear infrastructure means that there will be cases where:</p> <ol style="list-style-type: none"> <li>1. upgrades are made to existing infrastructure in an area at risk of flooding;</li> <li>2. infrastructure in a flood risk area is being replaced;</li> <li>3. infrastructure is being provided to serve a flood risk area; and</li> <li>4. infrastructure is being provided connecting two points that are not in flood risk areas, but where the most viable route between the two passes through such an area.</li> </ol>	<p>The Scheme is a committed development and, given its nature, is unavoidably located in Flood Zone 3.</p> <p>Given the baseline level of flood risk within Great Yarmouth, it is not possible to completely remove the risk of flooding to the access roads during tidal flood events. Ideally, all elements of the Scheme would be raised above the 0.5% AEP Climate Change tidal flood level but this would involve significant raising of the approach roads to the bridge and would likely render the design impractical (<b>paragraph 7.2.5</b>, FRA).</p> <p>The requirement to submit an Emergency Preparedness and Response Plan for approval in writing by the County Planning Authority following consultation with Great Yarmouth Borough Council, the lead local flood authority and the Environment Agency, is included in <b>Schedule 2</b> of the DCO (DCO Document <b>3.1</b>). The Emergency Preparedness and Response Plan must include provision as to the actions and measures, such as the closure of the bridge during major flood events.</p> <p>In terms of the impact of the Scheme on flood risk elsewhere, <b>paragraph 9.1.21</b> of the FRA concludes that two properties would experience a moderate adverse impact in the Present Day scenario and for other receptors in Great Yarmouth there is only a slight adverse impact in the Present Day and Climate Change scenarios. The FRA concludes it would be impractical to provide specific mitigation for the two properties to reduce the level of flooding in these circumstances, however, the implementation of measures within the Emergency Preparedness and Response Plan would mean that the</p>

		significance of flooding to the two properties in question would be reduced from moderate adverse to slight adverse.
5.103 NPS NN	The design of linear infrastructure and the use of embankments in particular, may mean that linear infrastructure can reduce the risk of flooding for the surrounding area. In such cases the Secretary of State should take account of any positive benefit to placing linear infrastructure in a flood-risk area.	It is recognised that linear infrastructure projects have the potential to simultaneously reduce the risk of flooding. Due to the nature and position of the Scheme, opportunities to reduce flood risk in this regard are not apparent. The flood risk mitigation set out in the FRA seeks to reduce the flooding risk generated by the Scheme, rather than pre-existing risks.
5.104 NPS NN	Where linear infrastructure has been proposed in a flood risk area, the Secretary of State should expect reasonable mitigation measures to have been made, to ensure that the infrastructure remains functional in the event of predicted flooding.	<p>The Scheme is a committed development and, given its nature, is unavoidably located in Flood Zone 3. Given the baseline level of flood risk within Great Yarmouth, it is not possible to completely remove the risk of flooding to the access roads during tidal flood events. Ideally, all elements of the Scheme would be raised above the 0.5% AEP Climate Change tidal flood level but this would involve significant raising of the approach roads to the bridge and would likely render the design impractical (<b>paragraph 7.2.5</b>, FRA).</p> <p>The FRA in <b>paragraph 9.1.20</b> recommends that the bridge deck of the Scheme is closed for public use during major flooding events in order to prevent vehicles or people becoming stranded. It should be noted that as the major risk of flooding in Great Yarmouth is from tidal sources, which can be predicted 24-48 hours in advance, there is time for event specific appropriate action to be taken. Once the bridge has been closed, the existing measures to be taken during a flood event in Great Yarmouth as set out in the existing emergency plan will apply. The Emergency Preparedness and Response</p>

		Plan will include provision as to the actions and measures, such as the closure of the bridge during major flood events. The requirement to submit an Emergency Preparedness and Response Plan for approval in writing by the County Planning Authority following consultation with Great Yarmouth Borough Council, the lead local flood authority and the Environment Agency, is included in <b>Schedule 2</b> of the DCO (DCO Document <b>3.1</b> ).
5.105 NPS NN 5.2.13 NPS for Ports	<i>“Preference should be given to locating projects in Flood Zone 1. If there is no reasonably available site in Flood Zone 1, then projects can be located in Flood Zone 2. If there is no reasonably available site in Flood Zones 1 or 2, then national networks infrastructure projects can be located in Flood Zone 3, subject to the Exception Test. If the development is not essential transport infrastructure that has to cross the area at risk, it is not appropriate in Flood Zone 3b, the functional floodplain where water has to flow and be stored in times of flood”.</i>	The Scheme is predominantly located within Flood Zone 3 (3a). A sequential test was applied and there is no opportunity to locate the development in Flood Zones 1 or 2 (as reported in <b>paragraph 4.2.3</b> of the Flood Risk Assessment (ES <b>Appendix 12B</b> in DCO Document <b>6.2</b> ). The Scheme is classified as essential infrastructure and therefore the Exception Test is applicable.
5.106 NPS NN 5.2.14 – 5.2.15 NPS for Ports	<i>“If, following application of the Sequential Test, it is not possible, consistent with wider sustainability objectives, for the project to be located in zones of lower probability of flooding than Flood Zone 3a, the Exception Test can be applied. The test provides a method of managing flood risk while still allowing necessary</i>	In order to meet Part 1 of the Exception Test it must be demonstrated that the project provides wider sustainability benefits to the community that outweigh flood risk. Both the NPS NN and the NPS for Ports state that this is to include benefits (including need) for the infrastructure, as set out in Chapter 2 of the NPS NN.  In making a Direction under Section 35 of the Planning Act

*development to occur.*

*The Exception Test is only appropriate for use where the Sequential Test alone cannot deliver an acceptable site, taking into account the need for essential infrastructure to remain operational during floods”.*

*“It may also be appropriate to use it [the Exception Test] where, as a result of the alternative site(s) at lower risk of flooding being subject to national designations such as landscape, heritage and nature conservation designations, e.g. Areas of Outstanding Natural Beauty (AONBs), Sites of Special Scientific Interest (SSSIs) and World Heritage Sites (WHS), it would not be appropriate to require the development to be located on the alternative site(s)”.*

2008, confirming he was satisfied the Scheme was nationally significant, the Secretary of State noted the nationally significant role the Port plays in the renewable energy sector and the offshore gas and oil industry. Section 4 of the Case for the Scheme confirms the vital transport and regeneration needs case for the Scheme, highlighting the current lack of connectivity between the SRN and the South Denes peninsula and associated problems this has for Great Yarmouth’s highway network as a whole. The lack of a direct link between the SRN and Port forces heavy traffic onto unsuitable routes within the town centre causing severe congestion and delays. Unless resolved, the town suffers from a lack of the resilient transport infrastructure necessary to capitalise on the planned investment whilst regenerating its town centre and maintaining a thriving visitor economy.

In the Section 35 Direction, the SoS notes that the Scheme will substantially improve connectivity and resilience for port activities, support the delivery of existing and potential renewable energy NSIPs and supports the Port’s role as an International Gateway. The benefits of the Scheme, discussed in **Section 5** of the Case for the Scheme and summarised in **Section 9**, support these conclusions.

- The Scheme would create a more direct and shorter link between the SRN and the Port leading to quicker and more reliable journeys between the two. It would enhance connectivity between the SRN and the Port and in doing so meet the primary aspirations of the Government’s Industrial Strategy and Transport Strategy, which are to create a better-connected transport network and build a stronger economy.



Overall, the infrastructure improvements would significantly enhance Great Yarmouth's growing role in supporting the offshore energy sector and assist the Port in reaping the opportunities associated with the delivery of existing and potential renewable energy NSIPs.

- The Scheme would improve connectivity between the South Denes and Beacon Park EZ sites, as well as those further afield in Lowestoft, thus creating opportunities for greater synergy between technology and energy related businesses operating within them. It would also connect a greater proportion of the town's labour market to employment areas, such as the existing industrial estates and Port.
- The Scheme would successfully re-route Port-related traffic away from key links leading into the town centre, such as Haven Bridge, creating capacity for town centre and seafront traffic and reducing congestion, particularly during the peak tourism season. The additional capacity created would support the regeneration of retail, leisure and commercial uses within the town centre, for example within the Waterfront Area.
- The Scheme would lead to reduced congestion and improved journey time reliability on the local highway network, particularly on links leading towards the town centre from the west of the town, such as Haven Bridge. It would greatly improve the resilience of the local road network, particularly in relation to the need for planned and emergency closures of Haven Bridge for maintenance and repair purposes. It also

significantly improves connectivity for all transport modes by allowing heavy traffic, including abnormal loads, to be re-routed around the town centre and freeing up the town centre roads for local traffic and NMUs.

- The Scheme would result in a saving of 54 casualties over the period 2022 to 2081.
- The Scheme would provide a quicker route between the west and east of the town for non-motorised users (NMUs) and significantly improves accessibility for pedestrians and cyclists, which encourages more sustainable modes of transport and reduces community severance. The Scheme would result in a general improvement in assessed bus journey times with an average saving of 12 seconds (1%) in the AM peak and 42 seconds (3%) in the PM peak anticipated. In addition, the Scheme presents an opportunity for new, more direct bus routes into the South Denes area to be introduced.

In summary, the FRA (**Appendix 12B**, DCO Document **6.2**) concludes that the most significant source of flooding, in Great Yarmouth as a whole and to the Principal Application Site, is tidal flooding (**paragraph 9.1.5**). The FRA has shown that the bridge deck itself is not at risk of tidal flooding even in the extreme climate change scenarios tested, however the approach roads to the bridge are shown to be at risk even in the present day flooding scenarios tested (**paragraph 9.1.9**). The impact of the Scheme on the level of flood risk in Great Yarmouth has at worst been found to be moderate (up to 0.1m increase in flood level in a small area) and the impact of the

Scheme is reduced for the climate change scenarios where the base flood level is higher than for the present day (**paragraphs 9.1.10 – 9.1.11**). Given the existing level of tidal flood risk within Great Yarmouth, as detailed in the FRA, it has been deemed impractical to provide mitigation to reduce the modest impact of the Scheme on tidal flooding within Great Yarmouth (**paragraph 9.1.19**).

The requirement to submit an Emergency Preparedness and Response Plan for approval in writing by the County Planning Authority following consultation with Great Yarmouth Borough Council, the lead local flood authority and the Environment Agency, is included in **Schedule 2** of the DCO (DCO Document **3.1**).

The provision of a Flood Management Plan by the Contractor in their full CoCP is included for in **Section 7.2** of the OCoCP (DCO Document **6.16**).

The FRA concludes that surface water runoff from the Principal Application Site will increase as a result of the Scheme, however the Drainage Strategy (**Appendix 12C** in DCO Document **6.2**) provides details of how surface water runoff will be managed within the Principal Application Site to avoid an increase in surface water flood risk elsewhere. All sources of flooding are assessed in the FRA but the risk of flooding to the Application Site is negligible for all sources apart from tidal and surface water flooding.

The FRA concludes that surface water runoff from the Principal Application Site will increase as a result of the Scheme, however the Drainage Strategy (**Appendix 12C** in DCO Document **6.2**) provides details of how surface water

		<p>runoff will be managed within the Principal Application Site. The FRA concludes it would be impractical to provide specific mitigation for the two properties experiencing a moderate adverse impact to reduce the level of flooding in these circumstances, however, the implementation of measures within the Emergency Preparedness and Response Plan would mean that the significance of flooding to the two properties in question would be reduced from moderate adverse to slight adverse. All sources of flooding are assessed in the FRA but the risk of flooding to the Application Site is negligible for all sources apart from tidal and surface water flooding.</p> <p>On this basis, it is considered that the Scheme would deliver wider sustainability benefits to the community that outweigh flood risk and as such Part 1 of the Exception Test is met.</p>
<p>5.108 NPS NN 5.2.16 NPS for Ports</p>	<p>States that to pass the Exception Test, it must be demonstrated that the project provides wider sustainability benefits to the community that outweigh the flood risk and a FRA must demonstrate that the project will be safe in its lifetime without increasing flood risk elsewhere and where possible to reduce overall flood risk.</p>	<p>The Exception Test has been applied, as per response to paragraph 5.106 of the NPS NN above.</p> <p>As stated in <b>paragraph 7.2.5</b> of the FRA, the bridge itself, which is a safety critical element, remains operational and safe during all flood events modelled but the access roads leading to the bridge do not. Given the Baseline level of flood risk within Great Yarmouth, it is not possible to completely remove the risk of flooding to the access roads during tidal flood events. Ideally, all elements of the Scheme would be raised above the 0.5% AEP Climate Change tidal flood level but this would involve significant raising of the approach roads to the bridge and would likely render the design impractical (<b>paragraph 7.2.5</b>, FRA).</p> <p>The requirement to submit an Emergency Preparedness and</p>

		<p>Response Plan for approval in writing by the County Planning Authority following consultation with Great Yarmouth Borough Council, the lead local flood authority and the Environment Agency, is included in <b>Schedule 2</b> of the DCO (DCO Document <b>3.1</b>). The Emergency Preparedness and Response Plan must include provision as to the actions and measures to be taken, such as the closure of the bridge during major flood events.</p> <p>In terms of the impact of the Scheme on flood risk elsewhere, <b>paragraph 9.1.21</b> of the FRA concludes that two properties would experience a moderate adverse impact in the Present Day scenario and for other receptors in Great Yarmouth there is only a slight adverse impact in the Present Day and Climate Change scenarios. The FRA concludes it would be impractical to provide specific mitigation for the two properties to reduce the level of flooding in these circumstances, however, the implementation of measures within the Emergency Preparedness and Response Plan would mean that the significance of flooding to the two properties in question would be reduced from moderate adverse to slight adverse.</p>
<p>5.109 NPS NN 5.2.27 NPS for Ports</p>	<p><i>States that that “any project that is classified as ‘essential infrastructure’ and proposed to be located in Flood Zone 3a or b should be designed and constructed to remain operational and safe for users in times of flood; and any project in Zone 3b should result in no net loss of floodplain storage and not impede water flows”.</i></p>	<p>As per response to paragraph 5.108 of NPS NN above.</p>

5.110 – 5.113 NPS NN  
5.2.21 – 5.2.24 NPS  
for Ports

Outlines guidance with regards to flood risk mitigation. Approaches to surface water drainage management are provided:

- *“source control measures including rainwater recycling and drainage;*
- *infiltration devices to allow water to soak into the ground, that can include individual soakaways and communal facilities;*
- *filter strips and swales, which are vegetated features that hold and drain water downhill mimicking natural drainage patterns;*
- *filter drains and porous pavements to allow rainwater and run-off to infiltrate into permeable material below ground and provide storage if needed;*
- *basins and ponds to hold excess water after rain and allow controlled discharge that avoids flooding; and*
- *flood routes to carry and direct excess water through developments to minimise the impact of severe rainfall flooding”.*

*“Site layout and surface water drainage systems should cope with events that exceed the design capacity of the system,*

A Drainage Strategy (**Appendix 12C**) provides details of the attenuation required as part of the Scheme and is secured in a Requirement in **Schedule 2** of the DCO (DCO Document **3.1**). **Section 2.2** and **2.3** of the Drainage Strategy outlines the Scheme drainage design.

The Drainage Strategy concludes in **Section 3** as follows:

*“For the western side of the Scheme, discharge rates and volumes into receiving waterbodies/systems to be limited, as close as practical, to the greenfield runoff scenario for all events up to and including the 1 in 100 year return period event. Where this is not achievable, the post development runoff rates and volumes should not exceed existing scenario values.*

*The preferred discharge option for the western side of the Scheme is to the IDB ordinary watercourse, however an alternate discharge into the River Yare via pumped system is also considered.*

*For the eastern side of the Scheme, discharge rates and volumes into receiving waterbodies/systems to be limited, as close as practical, to the greenfield runoff scenario for all events up to and including the 1 in 100 year return period event. Where this is not achievable, the post development runoff rates should not exceed 10l/s as defined by AW.*

*An adequate inclusion of attenuation, pollution treatment and SuDS is to be included within the Contractor’s detailed drainage design”.*

	<p><i>so that excess water can be safely stored on or conveyed from the site without adverse impacts.</i></p> <p><i>The surface water drainage arrangements for any project should be such that the volumes and peak flow rates of surface water leaving the site are no greater than the rates prior to the proposed project, unless specific off-site arrangements are made and result in the same net effect”.</i></p>	
<p>5.114 NPS NN 5.2.25 NPS for Ports</p>	<p><i>“It may be necessary to provide surface water storage and infiltration to limit and reduce both the peak rate of discharge from the site and the total volume discharged from the site. There may be circumstances where it is appropriate for infiltration attenuation storage to be provided outside the project site, if necessary through the use of a planning obligation”.</i></p>	<p>As per response to paragraphs 5.110 – 5.113 of the NPS NN.</p>
<p>5.115 NPS NN 5.2.26 NPS for Ports</p>	<p><i>“The sequential approach should be applied to the layout and design of the project. Vulnerable uses should be located on parts of the site at lower probability and residual risk of flooding. Applicants should seek opportunities to use open space for multiple purposes such as amenity, wildlife habitat and flood</i></p>	<p>The Scheme is predominantly located within Flood Zone 3 (3a). The sequential test was applied and there is no opportunity to locate the development in Flood Zones 1 or 2 (as reported in <b>paragraph 4.2.3</b> of the Flood Risk Assessment (ES <b>Appendix 12B</b> in DCO Document <b>6.2</b>).</p> <p>As stated in <b>Section 2.3</b> of the Drainage Strategy (<b>Appendix 12C</b>, DCO Document <b>6.2</b>) opportunities to utilise swales and ponds are to be incorporated in the detailed design for the</p>

	<p><i>storage uses. Opportunities can be taken to lower flood risk by improving flow routes, flood storage capacity and using SuDS”.</i></p> <p>Paragraph 5.2.26 of the NPS for Ports outlines similar requirements.</p>	<p>western side of the Scheme, providing amenity and habitat creation benefits as well as fulfilling attenuation and treatment purposes.</p>
<p>5.2.28 NPS for Ports</p>	<p><i>“The receipt of and response to warnings of floods is an essential element in the management of the residual risk of flooding. Flood warning and evacuation plans should be in place for those areas at an identified risk of flooding. Applicants should take advice from the emergency services when producing an evacuation plan for the project as part of the FRA. Any emergency planning documents, flood warning and evacuation procedures that are required should be identified in the FRA”.</i></p>	<p><b>Paragraph 9.1.20</b> of the FRA states <i>“The response to significant flood events is coordinated by the Norfolk Resilience Forum (made up of the emergency services, local authorities, volunteer organisations and PPGY), any response is based on the predicted severity of the flood event. However, any existing emergency procedures will not address the issues specific to the Scheme and additional mitigation is recommended”.</i></p> <p>An Emergency Preparedness and Response Plan, which must include provision as to the actions and measures, such as the closure of the bridge during major flood events, will be provided in accordance with a Requirement in <b>Schedule 2</b> of the draft DCO (DCO Document <b>3.1</b>). The Emergency Preparedness and Response Plan will be submitted for approval in writing by the County Planning Authority following consultation with Great Yarmouth Borough Council, the lead local flood authority and the Environment Agency, is included in <b>Schedule 2</b> of the DCO (DCO Document <b>3.1</b>).</p> <p>The provision of a Flood Management Plan by the Contractor in their full CoCP is included for in <b>Section 7.2</b> of the OCoCP (DCO Document <b>6.16</b>) the provision of which is secured in a Requirement in <b>Schedule 2</b> of the draft DCO.</p>



## Land Instability

5.117 – 5.118 NPS NN

*“Where necessary, land stability should be considered in respect of new development, as set out in the National Planning Policy Framework and supporting planning guidance. Specifically, proposals should be appropriate for the location, including preventing unacceptable risks from land instability. If land stability could be an issue, applicants should seek appropriate technical and environmental expert advice to assess the likely consequences of proposed developments on sites where subsidence, landslides and ground compression is known or suspected. Applicants should liaise with the Coal Authority if necessary.*

*A preliminary assessment of ground instability should be carried out at the earliest possible stage before a detailed application for development consent is prepared. Applicants should ensure that any necessary investigations are undertaken to ascertain that their sites are and will remain stable or can be made so as part of the development. The site needs to be assessed in context of surrounding areas where subsidence, landslides and land compression could*

**Chapter 16** of the ES assesses land stability. **Paragraph 16.5.8** states that *““The Principal Application Site is not underlain by historical mining, coal mining activities, non-coal mining activities, non-coal mining cavities, natural cavities, brine extraction, gypsum extraction, tin mining, kaolin or ball clay and none are recorded within 1,000m of the study area”.*

*“The GroundSure Report also provides the following information on natural ground subsidence:*

- *Shrink-swell clay: Negligible to low risk;*
- *Ground dissolution of soluble rocks: Negligible risk;*
- *Compressible deposits: Negligible to high risk;*
- *Collapsible deposits: Negligible to very low; and*
- *Running sands: Very low to moderate risk.*
- *Running sands: Very low to moderate risk”.*

**Paragraph 16.5.10** of the ES concludes that *“The Scheme involves significant earthworks and infrastructure to be constructed close to a river and quay wall. The potential loadings are high and could lead to land stability issues close to the quay wall if the foundations are insufficient. Piled foundations are therefore proposed for both the highway embankments and the bridge structure / cofferdam and therefore land stability issues are not considered likely to exist with suitable foundation design and construction working practices and are not considered further”.*

	<i>threaten the development during its anticipated life or damage neighbouring land or property. This could be in the form of a land stability or slope stability risk assessment report”.</i>	
5.119 NPS NN	<p><i>“Applicants have a range of mechanisms available to mitigate and minimise risks of land instability. These include:</i></p> <ul style="list-style-type: none"> <li><i>-Establishing the principle and layout of new development, for example avoiding mine entries and other hazards.</i></li> <li><i>-Ensuring proper design of structures to cope with any movement expected, and other hazards such as mine and/or ground gases;</i></li> </ul> <p><i>or</i></p> <ul style="list-style-type: none"> <li><i>-Requiring ground improvement techniques, usually involving the removal of poor material and its replacement with suitable inert and stable material. For development on land previously affected by mining activity, this may mean prior extraction of any remaining mineral resource”.</i></li> </ul>	As per response given to paragraph 5.117 – 5.118 of the NPS NN.
<b>The historic environment</b>		
5.125 NPS NN	<i>The SoS should also consider the impacts on other non-designated heritage assets (as identified either through the</i>	<b>Chapter 9</b> of the ES reports the outcome an assessment of likely significant effects arising from the Scheme upon cultural

	<p><i>development plan process by local authorities, including 'local listing', or through the nationally significant infrastructure project examination and decision making process) on the basis of clear evidence that the assets have a significance that merit consideration in that process, even though those assets are of lesser value than designated heritage assets</i></p>	<p>heritage.</p> <p>The assessment within <b>Chapter 9</b> considers non-designated heritage assets within a 500m Study Area around the Principal Application Site (DCO Document <b>6.1, Paragraph 9.4.9</b>). 18 below ground heritage assets are recorded within the Principal Application Site ((DCO Document <b>6.1, Paragraph 9.5.19</b>).</p> <p><b>Chapter 9</b> identifies the potential for significant effects on eight non-designated below ground heritage assets during the construction phase:</p> <ul style="list-style-type: none"> <li>• The Icehouse and Three Salt Stores (HER 55685);</li> <li>• Wharf side Buildings (WSP09);</li> <li>• Fish Wharf (WSP10);</li> <li>• Site of buildings on west side of Southtown Road (WSP11, WSP12 and WSP13); and</li> <li>• Site of 19th century house (WSP08) and Site of Marsh House (WSP14).</li> </ul> <p>The sensitivity of these assets is judged to be low based on the currently available evidence. Mitigation is provided in the form of either preservation in-situ or preservation by record as informed by a programme of evaluation, as set out in the Archaeological Written Scheme of Investigation (WSI) (DCO Document <b>6.9</b>). The WSI is included as a Requirement in <b>Schedule 2</b> of the DCO (DCO Document <b>3.1</b>). Residual construction phase impacts on the non-designated assets are predicted to reduce to long term neutral or slight (not significant).</p>
5.126 NPS NN	<p><i>“Where the development is subject to EIA the applicant should undertake an</i></p>	<p><b>Chapter 9</b> of the ES (Cultural Heritage) includes an assessment of the likely significant effects on designated and</p>

*assessment of any likely significant heritage impacts of the proposed project as part of the EIA and describe these in the ES”.*

Similar requirements are outlined in the NPS for Ports at paragraphs 5.12.6 and 5.12.7.

non-designated heritage assets as a result of the Scheme.

A summary of effects for cultural heritage is outlined in **Section 9.11** and **Table 9.10** of **Chapter 9**, as follows:

- During the construction phase, there is the potential for significant effects on eight non-designated below ground heritage assets within the Principal Application Site. With mitigation, effects are reduced to neutral to slight (not significant);
- During the construction phase, there is the potential for currently unknown below ground archaeological assets of unknown sensitivity, but effects could vary from negligible to very high level. With mitigation, effects are reduced to slight adverse (not significant) to moderate (significant);
- During the operation phase, there is the potential that below ground archaeological remains present in the Principal Application Site would be adversely impacted through changes in the local hydrology, resulting in the compaction, desiccation or waterlogging of below ground remains. Residual effects would range from neutral (not significant) to moderate (significant) with mitigation, depending on the sensitivity of the assets changed;
- The paleoenvironmental assessment notes that there is the potential for residual effects ranging from neutral to slight adverse (not significant) where deposits are preserved in-situ, and moderate (significant) where any change would occur;
- There are two non-designated built heritage assets within the Principal Application Site which would be

		<p>demolished during the construction phase. Residual effects after mitigation are predicted to be slight (not significant); and</p> <ul style="list-style-type: none"> <li>• Significant effects are anticipated on the settings of the Grade I Nelson’s Monument (NHLE 1246057) and Grade II Listed Gas Holder (NHLE 1096789) during both construction and operation as a result of the visual intrusion of the road, bridge, control tower and plant room. There are no mitigation measures proposed to reduce or remove the temporary adverse impacts on the setting of this Grade I and Grade II Listed Building during the construction or operation phase. The Scheme would have a Less than Substantial Harm on the Grade I Nelson’s Monument and the Grade II Gas Holder.</li> </ul>
<p>5.127 NPS NN 5.12.7 NPS for Ports</p>	<p><i>“The applicant should describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the asset’s importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant Historic Environment Record should have been consulted and the heritage assets assessed using appropriate expertise. Where a site on which development is proposed includes or has the potential to include heritage assets with</i></p>	<p><b>Chapter 9</b> of the ES describes the significance of historic environment assets. The assessment has been carried out based on both desk study and fieldwork and included a review of the Norfolk Historic Environment Record.</p> <p>The response provided to NPS NN 5.126 above provides a summary of the effects of the Scheme on Cultural Heritage.</p> <p>Mitigation in order to minimise the impact of the Scheme is set out in <b>Section 9.9</b> of the ES and in accordance with the Archaeological Written Scheme of Investigation (WSI) (DCO document <b>6.9</b>). A Requirement has been prepared to ensure that construction work must be carried out in accordance with the WSI (<b>Schedule 2</b> of the draft DCO, DCO Document <b>3.1</b>).</p> <p>The Scheme will require two sets of 19<sup>th</sup> century terrace housing (on Southtown Road and Queen Anne’s Road (non-</p>

	<p><i>archaeological interest, the applicant should include an appropriate desk-based assessment and, where necessary, a field evaluation”.</i></p> <p>The requirement stated in Paragraph 5.12.7 of the NPS for Ports is similar to that in the NPS NN.</p>	<p>designated heritage assets) (<b>Table 9.10</b>) to be demolished. The demolition works will be subject to a programme of building recording prior to commencement as set out in the WSI.</p>
5.129 NPS NN	<p><i>In considering the impact of a proposed development on any heritage assets, the SoS should take into account the particular nature of the significance of the heritage asset and the value that they hold for this and future generations. This understanding should be used to avoid or minimise conflict between their conservation and any aspect of the proposal</i></p>	<p><b>Paragraph 9.4.18</b> of the ES recognises the potential impact of the Scheme on the significance of heritage assets and the value that they hold for this and future generations, stating “assessment of the value of cultural heritage assets has involved consideration of the heritage interest of the asset to this and future generations. That interest may be archaeological, architectural, artistic or historic, and may derive not only from the asset’s physical presence, but also from its setting, and from individual or group qualities, either directly or potentially”.</p> <p><b>Table 9.10</b> and <b>Section 9.11</b> of <b>Chapter 9</b> of the ES summarise the potential effects upon the designated and non-designated features identified and assesses their significance prior to and following the application of mitigation. Mitigation will be in the form of preservation in-situ or through preservation by record and is set out in in an Archaeological WSI (DCO Document <b>6.9</b>). The WSI is included as a Requirement in <b>Schedule 2</b> of the DCO (DCO Document <b>3.1</b>).</p>
5.131 NPS NN 5.12.13 NPS for Ports	<p><i>“Given that heritage assets are irreplaceable, harm or loss affecting any designated heritage asset should require clear and convincing justification.</i></p>	<p><b>Paragraph 9.11.6</b> in <b>Chapter 9</b> of the ES concludes that the Scheme would result in significant effects on the setting of the Grade I Nelson’s Monument (NHLE 1246057) and Grade II Listed Gas Holder (NHLE 1096789) during both construction</p>

	<p><i>Substantial harm to or loss of a grade II Listed Building or a grade II Registered Park or Garden should be exceptional. Substantial harm to or loss of designated assets of the highest significance, including World Heritage Sites, Scheduled Monuments, grade I and II* Listed Buildings, Registered Battlefields, and grade I and II* Registered Parks and Gardens should be wholly exceptional”.</i></p>	<p>and operation as a result of the visual intrusion of the road, bridge, control tower and plant room. In both cases <b>Paragraph 9.11.7 – 9.11.8</b> concludes that the Scheme would cause Less than Substantial Harm on the designated heritage assets.</p>
5.134 NPS NN	<p>Where the proposed development will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal, including securing its optimum viable use.</p>	<p>The Scheme would deliver substantial public benefits which outweigh the less than substantial harm to Grade I Nelson’s Monument (NHLE 1246057) and Grade II Listed Gas Holder (NHLE 1096789), as set out below.</p> <p><b>Section 4</b> of the Case for the Scheme confirms the vital transport and regeneration needs case for the Scheme, highlighting the current lack of connectivity between the SRN and the South Denes peninsula and associated problems this has for Great Yarmouth’s highway network as a whole. The lack of a direct link between the SRN and Port forces heavy traffic onto unsuitable routes within the town centre causing severe congestion and delays. Unless resolved, the town suffers from a lack of the resilient transport infrastructure necessary to capitalise on the planned investment whilst regenerating its town centre and maintaining a thriving visitor economy.</p> <p>In his Section 35 Direction, the Secretary of State notes that the Scheme will substantially improve connectivity and resilience for port activities, support the delivery of existing</p>

		<p>and potential renewable energy NSIPs and supports the Port's role as an International Gateway. The benefits of the Scheme, discussed in <b>Section 5</b> of the Case for the Scheme and summarised in <b>Section 9</b>, support these conclusions.</p> <p><b>Paragraph 9.11.7 in Chapter 9</b> of the ES states that the Scheme would not result in a significant change to the architectural, historical and artistic interest of the Nelson's Monument and that it would only slightly reduce the contribution the setting makes in a few locations in the wider setting by diminishing its visual prominence. The introduction of the Scheme would provide new opportunities to view the asset from the bridge itself.</p> <p><b>Paragraph 9.11.8 in Chapter 9</b> of the ES states that the introduction of the Scheme would not impact significantly on the architectural interest of the Gas Holder, as there would be no direct physical impacts, and would not change the historic value in any way. The asset has unintentionally become a prominent feature in the wider landscape and the Scheme would impact on the asset by reducing and removing some views towards it.</p> <p>On this basis it is considered that the substantial public benefits delivered by the Scheme outweigh the less than substantial harm identified to two designated heritage assets.</p>
5.137 NPS NN	<p><i>“Applicants should look for opportunities for new development within Conservation Areas and World Heritage Sites, and within the setting of heritage assets, to enhance or better reveal their significance. Proposals that preserve</i></p>	<p><b>Paragraphs 9.11.6 – 9.11.8 in Chapter 9</b> of the ES concludes that the Scheme would result in significant effects on the setting of the Grade I Nelson's Monument (NHLE 1246057) and Grade II Listed Gas Holder (NHLE 1096789) but that in both cases harm caused would be less than substantial. Wider</p>



	<i>those elements of the setting that make a positive contribution to or better reveal the significance of the asset should be treated favourably”.</i>	<p>benefits outweighing the less than substantial harm on the designated heritage assets outlined in response to paragraph 5.134 of the NPS NN above.</p> <p><b>Paragraph 9.5.47 in Chapter 9</b> confirms that the value of the remaining assets identified within the study area, including Conservation Areas, would not be impacted upon to result in significant effects.</p> <p>A full description of these assets, the contribution of the setting, the impacts and resulting effects are presented in the Heritage Desk Based Assessment (DCO Document <b>6.2, Appendix 9B</b>).</p>
5.140 NPS NN	<i>“Where the loss of the whole or part of a heritage asset’s significance is justified, the Secretary of State should require the applicant to record and advance understanding of the significance of the heritage asset before it is lost (wholly or in part). The extent of the requirement should be proportionate to the importance and the impact. Applicants should be required to deposit copies of the reports with the relevant Historic Environment Record. They should also be required to deposit the archive generated in a local museum or other public depository willing to receive it”.</i>	<p>The construction phase would require the demolition of the non-designated late 19<sup>th</sup> century terraced buildings on Southtown Road (WSP06) and Queen Anne’s Road (WSP04) to accommodate the Scheme. The remaining built heritage assets will be retained and therefore will not be subject to direct physical impacts.</p> <p><b>Paragraph 9.5.40 in Chapter 9</b> of the ES confirms that a programme of historic building recording in advance of the demolition of the buildings is set out in the Archaeological Written Scheme of Investigation (WSI) (DCO Document <b>6.9</b>). Also included for in the WSI are preservation in situ and preservation by record, as appropriate following a programme of evaluation, for any heritage assets identified. The WSI is included as a Requirement in <b>Schedule 2</b> of the DCO (DCO Document <b>3.1</b>).</p>
<b>Landscape and visual impacts</b>		
5.144 NPS NN	<i>“Where the development is subject to EIA</i>	<b>Chapter 10</b> of the ES sets out a townscape and visual impact

<p>5.11.13 NPS for Ports</p>	<p><i>the applicant should undertake an assessment of any likely significant landscape and visual impacts in the EIA and describe these in the environmental assessment. A number of guides have been produced to assist in addressing landscape issues. The landscape and visual assessment should include reference to any landscape character assessment and associated studies, as a means of assessing landscape impacts relevant to the proposed project. The applicant's assessment should also take account of any relevant policies based on these assessments in local development documents in England".</i></p> <p>Paragraph 5.11.3 of the PNPS includes an identical requirement.</p>	<p>assessment ("TVIA"), which includes an assessment of the likely significant townscape and visual effects of the Scheme.</p> <p>The TVIA references the GYBC Landscape Character Assessment (2008) and the Broads Landscape Character Assessment (2016).</p> <p>The assessment methodology has been agreed with the Broads Authority and Norfolk County Council.</p> <p>The assessment considers and takes account of the regulatory and policy framework. This is set out in <b>Table 10.1</b> of the ES which references the NPS NN, NPS for Ports, NPPF and other relevant policies.</p>
<p>5.145 NPS NN 5.11.4 NPS for Ports</p>	<p><i>"The applicant's assessment should include any significant effects during construction of the project and/or the significant effects of the completed development and its operation on landscape components and landscape character (including historic landscape characterisation)".</i></p>	<p><b>Chapter 10</b> of the ES defines the significant townscape and visual significant (including that of historic setting) during both construction and operational phases.</p> <p><b>Section 10.11</b> provides a summary of the TVIA, which notes:</p> <ul style="list-style-type: none"> <li>• <i>"The assessment predicts that effects would be no greater than Slight Adverse on townscape during construction, with the greatest effects limited to those townscape character areas where the Scheme would be located. There are therefore no significant effects on townscape predicted during construction.</i></li> <li>• <i>The assessment predicts Slight or Moderate Adverse</i></li> </ul>

		<p><i>effects on visual receptors during construction due to the clearance of vegetation, demolition of buildings and construction activities. The greatest effects are predicted to be on associated receptors at Viewpoints 1, 2, 6, 14, 15 and 16.</i></p> <ul style="list-style-type: none"> <li>• <i>At Year 1 the greatest operational effects on townscape are predicted to be Slight Adverse to TCA 3 due to a noticeable reduction in tranquillity. A Slight Beneficial effect to TCA 1, and Neutral effects to TCA 2, 4, 5, 6, 7 and 9 are predicted for Year 1. There are therefore no significant operational effects on townscape predicted for Year 1 or beyond.</i></li> <li>• <i>At Year 1 Moderate Adverse operational effects are predicted on people at Viewpoints 1, 6, 15 and 16, Slight Adverse effects on people at Viewpoints 2, 5, 7, 9 and 14 and neutral effects on Viewpoints 3, 4, 8, 10, 11, 12, 13, 17 and 18.</i></li> <li>• <i>At Year 15 following establishment of embedded mitigation there would be Slight Beneficial operational effects on people at Viewpoints 1 and 16 with a Slight Adverse effect on Viewpoints 6 and 15. There are therefore no significant operational effects on visual amenity predicted for Year 15</i></li> </ul> <p>A summary of significant effects is provided in <b>Table 10.13</b>.</p>
<p>5.146 NPS NN 5.11.5 NPS for Ports</p>	<p><i>“The assessment should include the visibility and conspicuousness of the project during construction and of the presence and operation of the project and potential impacts on views and visual amenity. This should include any noise</i></p>	<p>The assessment in <b>Chapter 10</b> of the ES considers the townscape and visual effects of the Scheme in both the construction and operation phases. The assessment includes the temporary effects associated with construction works and the presence of plant on site. The effects of artificial lighting</p>

	<i>and light pollution effects, including on local amenity, tranquillity and nature conservation”.</i>	associated with the Scheme are assessed in <b>Section 10.9</b> .
5.152 NPS NN	<i>“There is a strong presumption against any significant road widening or the building of new roads and strategic rail freight interchanges in a National Park, the Broads and Areas of Outstanding Natural Beauty, unless it can be shown there are compelling reasons for the new or enhanced capacity and with any benefits outweighing the costs vary significantly”.</i>	The Scheme is not located in a National Park, the Broads or an Area of Outstanding Natural Beauty. The Broads National Park is located approximately 1km to the northwest of the Scheme.  <b>Chapter 10</b> concludes there are no predicted effects on the landscape of The Broads (screened out of the assessment as insignificant in <b>paragraph 10.4.8</b> ). Visual effects on the Broads are considered in viewpoints 17 and 18, which conclude a neutral (not significant) effect during construction and operation.
5.154 – 5.155 NPS NN 5.11.10 NPS for Ports	<i>“The duty to have regard to the purposes of nationally designated areas also applies when considering applications for projects outside the boundaries of these areas which may have impacts within them. The aim should be to avoid compromising the purposes of designation and such projects should be designed sensitively given the various siting, operational, and other relevant constraints. This should include projects in England which may have impacts on designated areas in Wales or on National Scenic Areas in Scotland.  The fact that a proposed project will be visible from within a designated area</i>	As per response given above to paragraph 5.152 of the NPS NN.

	<i>should not in itself be a reason for refusing consent”.</i>	
5.156 NPS NN	<i>“Outside nationally designated areas, there are local landscapes that may be highly valued locally and protected by local designation. Where a local development document in England has policies based on landscape character assessment, these should be given particular consideration. However, local landscape designations should not be used in themselves as reasons to refuse consent, as this may unduly restrict acceptable development”.</i>	<p><b>Paragraph 10.4.20</b> of the ES notes that “<i>The Great Yarmouth Borough Landscape Character Assessment (2008) (Ref 10.7)</i> identifies the town of Great Yarmouth as ‘urban’ with no local townscape characterisation.”</p> <p><b>Section 10.5</b> of the ES defines the baseline and designated sites.</p> <p><b>Section 10.4.8</b> confirms that effects on the Venetian Waterways Registered Park and Garden are considered to be insignificant and were therefore not assessed further.</p> <p>With regards to the Conservation Areas, <b>Section 10.11.4</b> states that no significant effects are predicted on townscape for Year 1 or beyond.</p>
5.158 NPS NN	<i>The Secretary of State will have to judge whether the visual effects on sensitive receptors, such as local residents, and other receptors, such as visitors to the local area, outweigh the benefits of the development. Coastal areas are particularly vulnerable to visual intrusion because of the potential high visibility of development on the foreshore, on the skyline and affecting views along stretches of undeveloped coast, especially those defined as Heritage Coast.</i>	<p><b>Paragraph 10.4.44</b> of the ES indicates 18 viewpoint locations were selected as part of the TVIA, which included heritage and cultural locations, alongside side that of residential receptors.</p> <p><b>Section 10.11</b> of the ES provides a summary of the TVIA, as noted in the response to NPS NN paragraph 5.145.</p>
5.160 NPS NN	<i>“Adverse landscape and visual effects</i>	<b>Chapter 10</b> of the ES comprises a townscape and visual

5.11.17 NPS for Ports	<i>may be minimised through appropriate siting of infrastructure, design (including choice of materials), and landscaping schemes, depending on the size and type of proposed project. Materials and designs for infrastructure should always be given careful consideration”.</i>	<p>impact assessment (“TVIA”), which includes an assessment of the likely significant townscape and visual effects of the Scheme.</p> <p>It is recognised that due to the location, massing and scale of the development, that bridge structure mitigation is unfeasible in this instance. Therefore, embedded mitigation (public realm improvements, tree planting and vegetated embankments) has instead been incorporated within the proposed design, which seeks to respond to and integrate the Scheme with the existing townscape. <b>Paragraph 10.8.5</b> notes that <i>“Embedded mitigation is included within the Scheme, and there is no proposed additional mitigation for the Scheme”</i>.</p> <p>Embedded mitigation is further defined in <b>Section 6</b> of the Design Report (Document Number <b>7.4</b>) and the Landscaping Plans (Document Number <b>2.9</b>).</p> <p>Materials and designs for the Scheme are also considered in the Design Report (Document Number <b>7.4</b>)</p>
5.161 NPS NN	<i>“It may be appropriate to undertake landscaping off site, although is this occurred any landscaping consented by the order would need to be included in the order limits for the application”</i>	No landscaping outside of the Application Site is proposed as part of the Scheme.
<b>Land use including open space, green infrastructure and Green Belt</b>		
5.165 NPS NN 5.13.5 NPS for Ports	<i>“The applicant should identify existing and proposed land uses near the project, any effects of replacing an existing development or use of the site with the proposed project or preventing a</i>	<p><b>Chapter 14</b> of the ES identifies existing and proposed land uses within the Principal Application Site, and assesses the effects of the Scheme on those uses.</p> <p><b>Table 19.15</b> in <b>Chapter 19</b> of the ES presents those developments considered within the cumulative assessment</p>

	<p><i>development or use on a neighbouring site from continuing. Applicants should also assess any effects of precluding a new development or use proposed in the development plan. The assessment should be proportionate”.</i></p> <p>The approach set out in Paragraph 5.13.5 of the NPS for Ports is the same but the requirement is worded differently.</p>	<p>process. The matrix identifies a total of 57 separate developments.</p>
<p>5.166 NPS NN 5.13.6 NPS for Ports</p>	<p><i>“Existing open space, sports and recreational buildings and land should not be developed unless the land is surplus to requirements or the loss would be replaced by equivalent or better provision in terms of quantity and quality in a suitable location. Applicants considering proposals which would involve developing such land should have regard to any local authority’s assessment of need for such types of land and buildings”.</i></p> <p>Paragraph 5.13.6 of the NPS for Ports specifies a similar approach.</p>	<p>The Statement of Reasons (DCO Document 4.2) confirms there is no ‘Special Category Land’ (for the purposes s131 and 132 of the Planning Act) within the Order Limits.</p> <p>The definition of ‘open space’ in the context of NPS NN is found in footnote 105, and is as follows:</p> <p><i>“All open space of public value, including not just land, but also areas of water (such as rivers, canals, lakes and reservoirs) which offer important opportunities for sport and recreation and can act as a visual amenity.”</i></p> <p>Neither the MIND Centre and Grounds, nor the area of ‘Open Amenity Space’ referred to in the GY Core Strategy located to the east of Kingsgate Community Centre is open space in this context, but may be ‘recreational buildings and land’, and therefore paragraph 5.166 is relevant to the Scheme.</p> <p><b>Land to the east of Kingsgate Community Centre:</b></p> <p>As reported in <b>Paragraph 8.3.78</b> of the Case for the Scheme, GYBC has noted that <i>“the land is surplus to requirements; it is of no existing or planned recreational or sport value; and it makes a limited contribution to visual amenity in the immediate</i></p>

*vicinity of the site<sup>9</sup>*. GYBC has assessed the requirement for replacement of this land elsewhere, and have confirmed that this is not required. GYBC note that, in this context, “*There is an extensive Council owned open recreational space, ‘Southtown Common’, immediately across the road from the site (to the South). Southtown Common already provides significant recreational and sport facilities, and makes a contribution to local visual amenity value. In line with the Council’s current leisure strategy, any additional sports provision or investment for the locality is expected to be provided here*” (see the Case for the Scheme, **paragraphs 8.3.77 – 8.3.80**).

**MIND Centre and Grounds:**

It is acknowledged that there is a requirement for land to be replaced by equivalent or better provision in terms of quantity and quality, however this does not preclude the reconfiguration of the site and some loss of land.

Whilst there will be a loss of land quantity within the MIND Centre and Grounds, the overall facilities post construction would be of a similar standard and would remain in a suitable location which the users are familiar with. The overall judgement as to whether the ‘lost’ land has been replaced by equivalent or better provision is a planning judgement.

As documented in **Chapter 3** of the ES, the Scheme design has evolved since the statutory consultation to minimise impacts, and further consultation has taken place with the users of the MIND Centre and Grounds and other relevant consultees. Details of the changes are discussed in **Table 10.15** of the Consultation Report (DCO Document **5.1**) and are shown in **Appendix Q3** of the Consultation Report –



		<p>Appendices (DCO Document <b>5.2</b>).</p> <p>As reported in <b>Section 11.3.2</b> of the Consultation Report, five responses were received in response to the further consultation on the changes to the Scheme to minimise the impact on the MIND Centre and Grounds. Norfolk County Council and Great Yarmouth Borough Council confirmed that they had no objections to the proposals.</p> <p>As per <b>Table 11-3</b> of the Consultation Report, the Applicant has confirmed that sites have been identified within the Order Limits to house existing infrastructure and land uses, including the relocation of disabled pathways, labyrinth, nature reserve area, and orchard site.</p> <p>Further, the Applicant is aiming to agree a SoCG with the users of the MIND Centre and Grounds. Work on the SoCG is underway, and the Applicant envisages that the SoCG will be progressed and developed throughout the DCO examination period. It is anticipated that the Applicant will facilitate discussions with GYBC (as landowners) and the MIND Centre and Grounds users to extend the current lease.</p> <p>GYBC's view that the nearby Southtown Common provides significant recreational and sport facilities is also a relevant consideration for the MIND Centre and Grounds.</p>
<p>5.168 NPS NN 5.13.8 NPS for Ports</p>	<p><i>“Applicants should take into account the economic and other benefits of the best and most versatile agricultural land (defined as land in grades 1, 2 and 3a of the Agricultural Land Classification). Where significant development of agricultural land is demonstrated to be</i></p>	<p>The Scheme does not result in impacts upon agricultural land.</p> <p><b>Chapter 16</b> of the ES assesses the effects of the Scheme on soils, and the potential for disturbance of potentially contaminated soil. At paragraph <b>16.12.6</b>, the assessment concludes that <i>“There are not considered to be any significant effects upon geology, soils and contamination arising from the Scheme”</i>.</p>

	<p><i>necessary, applicants should seek to use areas of poorer quality land in preference to that of a higher quality. Applicants should also identify any effects, and seek to minimise impacts, on soil quality, taking into account any mitigation measures proposed. Where possible, developments should be on previously developed (brownfield) sites provided that it is not of high environmental value. For developments on previously developed land, applicants should ensure that they have considered the risk posed by land contamination and how it is proposed to address this”.</i></p> <p>Paragraph 5.13.8 of the NPS for Ports includes an almost identical requirement.</p>	
5.169 NPS NN	<p><i>“Applicants should safeguard any mineral resources on the proposed site as far as possible”.</i></p>	<p>As stated in the Case for the Scheme (<b>paragraph 8.3.92</b>), the Scheme will not conflict with any existing, permitted and allocated mineral extraction and associated development.</p> <p>As stated in Paragraph <b>15.5.6</b> of the ES states that the <i>“Norfolk Minerals and Waste Core Strategy and Development Framework identifies mineral safeguarding areas. The Scheme is partially underlain by a sand and gravel Mineral Safeguarding Areas. However, the Scheme is already sterilised due to development”.</i></p>
5.174 NPS NN	<p><i>“The Secretary of State should not grant consent for development on existing open space, sports and recreational buildings</i></p>	<p>As per response given above to paragraph 5.166 of the NPS NN.</p>

	<p><i>and land, including playing fields, unless an assessment has been undertaken either by the local authority or independently, which has shown the open space or the buildings and land to be surplus to requirements, or the Secretary of State determines that the benefits of the project (including need) outweigh the potential loss of such facilities, taking into account any positive proposals made by the applicant to provide new, improved or compensatory land or facilities”.</i></p>	
5.175 NPS NN	<p><i>“Where networks of green infrastructure have been identified in development plans, they should normally be protected from development, and, where possible, strengthened by or integrated within it. The value of linear infrastructure and its footprint in supporting biodiversity and ecosystems should also be taken into account when assessing the impact on green infrastructure”.</i></p>	<p>Policy CS18 of the GY Core Strategy defines green infrastructure as public sport, general recreation, children’s play and food production areas.</p> <p>The response given above to paragraph 5.166 of the NPS NN addresses areas of open amenity space identified in the development plan.</p> <p>Allotments owned by the Great Yarmouth and Gorleston Allotment Association Limited, will be replaced as part of the Scheme where possession is required to facilitate the design.</p> <p>As reported in <b>Section 6.2</b> of the Design Report (DCO Document <b>7.4</b>), the linear nature of the Scheme design will be utilised to support biodiversity through the implementation of ‘green routes’ to enhance connectivity to Queen Anne’s Road and Suffolk Road from Southtown Road. It is proposed that these routes feature landscaping to benefit biodiversity and add visual interest.</p>

5.178 NPS NN	<p><i>When located in the Green Belt national networks infrastructure projects may comprise inappropriate development. Inappropriate development is by definition harmful to the Green Belt and there is a presumption against it except in very special circumstances. The Secretary of State will need to assess whether there are very special circumstances to justify inappropriate development. Very special circumstances will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm, is clearly outweighed by other considerations. In view of the presumption against inappropriate development, the Secretary of State will attach substantial weight to the harm to the Green Belt, when considering any application for such development”.</i></p>	The Scheme is not located in Green Belt.
5.179 NPS NN	<p>“Applicants can minimise the direct effects of a project on the existing use of the proposed site, or proposed uses near the site, by the application of good design principles, including the layout of the project and the protection of soils during construction.</p>	<p>The Design Report (DCO Document <b>7.4</b>) describes the Scheme design for which consent is sought, and how the application of ‘good design’ has been incorporated within the constraints of the Scheme.</p> <p><b>Chapter 16</b> of the ES assesses the effects of the Scheme on soils, and the potential for disturbance of potentially contaminated soil. At <b>paragraph 16.12.6</b>, the assessment concludes that “<i>There are not considered to be any significant effects upon geology, soils and contamination arising from the Scheme</i>”. <b>Paragraph 16.9.3</b> provides details of embedded</p>

		<p>mitigation to protect soils during construction, including as an example:</p> <ul style="list-style-type: none"> <li>• <i>“...the development of method statements and risk assessments for the various construction activities and use of good construction practices; and</i></li> <li>• <i>“...All fuel, oil and chemicals would be stored in a designated secure area, with secondary containment provided”</i></li> </ul>
5.180 NPS NN 5.13.20 NPS for Ports	<i>“Where green infrastructure is affected, applicants should aim to ensure the functionality and connectivity of the green infrastructure network is maintained and any necessary works are undertaken, where possible, to mitigate any adverse impact and, where appropriate, to improve that network and other areas of open space, including appropriate access to new coastal access routes, National Trails and other public rights of way”.</i>	As per response to NPS NN paragraphs 5.166 and 5.175.
5.182 NPS NN	<i>“Where a proposed development has an impact on a Mineral Safeguarding Area (MSA), the Secretary of State should ensure that the applicant has put forward appropriate mitigation measures to safeguard mineral resources”.</i>	As per response given above to paragraph 5.169 of the NPS NN.
5.183 NPS NN	<i>“Where a project has a sterilising effect on land use there may be scope for this</i>	Reference should be made to compliance outlined in NPS NN

5.12.23 NPS for Ports	<i>to be mitigated through using the land for nature conservation or wildlife corridors”.</i>	<p>paragraph 5.175.</p> <p>The Landscaping Plans (DCO Reference <b>2.9</b>) include embedded mitigation such as tree, shrub and hedge planting, as well as species rich grass planting to maximise opportunities for nature conservation within the Order Limits.</p> <p>As set out in <b>Paragraph 6.2.29</b> of the Design Report (DCO Reference <b>7.4</b>), either side of the embankment between Southtown Road and the proposed roundabout at William Adams Way, adequate space is required for maintenance access. This offers an opportunity to provide shared pedestrian and cycle routes at this location to enhance connectivity to Queen Anne’s Road and Suffolk Road from Southtown Road. It is proposed that these routes feature landscaping to benefit biodiversity and add visual interest, for which reason these routes are referred to as ‘green routes’.</p> <p>Specific habitat enhancement measures for water are detailed in the OCoCP (DCO Document <b>6.16</b>) and also in <b>Table 3.3</b> of the Mitigation Schedule. (DCO Document <b>6.13</b>). A Requirement is included in <b>Schedule 2</b> of the draft DCO (DCO Document <b>3.1</b>) to secure the implementation of measures set out in the OCoCP within a full CoCP to be provided by the Contractor</p>
5.184 NPS NN 5.13.24 NPS for Ports	<i>“Public rights of way, National Trails, and other rights of access to land (e.g. open access land) are important recreational facilities for walkers, cyclists and equestrians. Applicants are expected to take appropriate mitigation measures to address adverse effects on coastal</i>	<p>Paragraph <b>14.8.1</b> in <b>Chapter 14</b> of the ES, anticipates that the Scheme would cause “<i>temporary disruption and change in accessibility for public routes as a result of temporary road closures and diversions</i>” during the construction phase. In this phase, the “<i>contractor would maintain pedestrian and cycle access and provide reasonable adjustments for inclusive</i></p>

*access, National Trails, other public rights of way and open access land and, where appropriate, to consider what opportunities there may be to improve access. In considering revisions to an existing right of way consideration needs to be given to the use, character, attractiveness and convenience of the right of way. The Secretary of State should consider whether the mitigation measures put forward by an applicant are acceptable and whether requirements in respect of these measures might be attached to any grant of development consent”.*

access”. Paragraph **14.8.15** notes a similar issue for access to community resources.

**Figure 14.3** of the ES (DCO Document **6.3**) shows the PRoW and facilities within 500m of the Principal Application Site. With regards to the PRoW, the ES (DCO Document **6.1**, **paragraph 14.8.4**) states that, for the construction stage “*magnitude of change is considered to be minor as there would be no significant increase in journey time. Therefore, there is likely to be a direct, temporary, short-term, slight adverse (not significant) effect on NMUs*”.

The Figure shows that a Sustrans Cycle Route 517 intersects the Principal Application Site and runs along Southtown Road and Malthouse Lane, which both join William Adams Way. Paragraph **14.8.5** of the ES states that, for the construction stage, “*the closure of Southtown Road would be limited, meaning the magnitude of change is considered to be minor as the alteration of the route would be minimal. Therefore, there is likely to be a direct, temporary, **short-term, slight adverse (not significant) effect on NMUs***”.

**Section 9.2** of the OCoCP provides additional mitigation relating to temporary public right of way closures required as a result of construction. They include the provision of appropriate and quality diversions which would be established prior to construction. Clear directions for any alternative routes and appropriate alternative diversions would be clearly publicised by the Contractor. Public notices would be issued in advance so to inform local residents and businesses of dates and durations of road and rights of way closures. The Contractor would ensure provision and maintenance of

		<p>suitable and sufficient signs and barriers indicating temporary and permanent closures to public accesses and rights of way.</p> <p>A cycleway and footpath will be provided as part of the Scheme along the proposed bridge, which would enable pedestrian and cyclists to safely cross the River Yare. As a result, paragraph <b>14.8.90</b> in Chapter 14 of ES states “<i>therefore, there is likely to be a direct, permanent, long-term, moderate beneficial (significant) effect on NMUs crossing the River Yare</i>”.</p>
<p><b>Noise and Vibration</b></p>		
<p>5.189 NPS NN</p>	<p><i>Where a development is subject to EIA and significant noise impacts are likely to arise from the proposed development, the applicant should include the following in the noise assessment, which should form part of the environment statement:</i></p> <p><i>-a description of the noise sources including likely usage in terms of number of movements, fleet mix and diurnal pattern. For any associated fixed structures, such as ventilation fans for tunnels, information about the noise sources including the identification of any distinctive tonal, impulsive or low frequency characteristics of the noise.</i></p> <p><i>-identification of noise sensitive premises and noise sensitive areas that may be affected.</i></p>	<p><b>Chapter 7</b> of the ES considers the significance of noise and vibration effects which may arise due to the Scheme.</p> <ul style="list-style-type: none"> <li>• A description of the noise sources is set out in the ES chapter (<b>Section 7.8</b>);</li> <li>• There are 10,436 dwelling receptors and 179 other sensitive receptors including other receptors such as schools and community facilities as well as areas of interest to nature conservation and cultural heritage (<b>Section 7.6</b>);</li> <li>• The characteristics of the existing noise environment are set out in <b>Section 7.5</b> of the ES which considers the baseline environment;</li> <li>• An assessment of how the noise environment will change, and an assessment of the effect of predicted changes is set out at Section <b>7.8</b> of the ES; and</li> <li>• Noise and vibration mitigation is set out in Section <b>7.8</b> of the ES and in <b>Table 3.2</b> of the Mitigation Schedule (DCO document <b>6.13</b>).</li> </ul>



	<p><i>-the characteristics of the existing noise environment.</i></p> <p><i>-a prediction on how the noise environment will change with the proposed development:</i></p> <p><i>-In the shorter term such as during the construction period;</i></p> <p><i>-in the longer term during the operating life of the infrastructure;</i></p> <p><i>-at particular times of the day, evening and night as appropriate.</i></p> <p><i>-an assessment of the effect of predicted changes in the noise environment on any noise sensitive premises and noise sensitive areas.</i></p> <p><i>-measures to be employed in mitigating the effects of noise. Applicants should consider using best available techniques to reduce noise impacts.</i></p> <p><i>-the nature and extent of the noise assessment should be proportionate to the likely noise impact”.</i></p>	<p>At <b>Section 7.10</b>, the assessment presented in the ES concludes that:</p> <ul style="list-style-type: none"> <li>• <i>“With appropriate mitigation in place, including compliance with the CoCP, residual significant adverse construction noise and vibration effects remain...”;</i></li> <li>• <i>“No significant effects are predicted due to construction traffic noise on the existing road network...”;</i></li> <li>• <i>“Residual significant adverse operational road traffic noise effects are predicted. Opportunities to offset the predicted effects are limited due to the urban nature of the surrounding area. Therefore, significant adverse effects would remain because of the operation of the Scheme, notwithstanding that some receptors may be eligible for noise insulation under the NIR...”;</i> and</li> <li>• <i>“No significant adverse effects are predicted due to the operation of the bridge opening (wig wag) alarm...”.</i></li> </ul> <p>Noise and vibration can have impact on ecological assets, therefore noise levels at areas of interest to nature conservation have been presented in <b>Tables 7.45</b> and <b>7.46</b> of <b>Chapter 7</b> to facilitate additional consideration within <b>Chapter 8: Nature Conservation</b>.</p>
5.190 NPS NN	<p><i>“The potential noise impact elsewhere that is directly associated with the development, such as changes in road and rail traffic movements elsewhere on the national networks, should be</i></p>	<p>The noise assessment in <b>Chapter 7</b> of the ES is based upon the traffic model for the Scheme and as such, operational noise and vibration effects elsewhere on the highway network as a result of the Scheme are considered. <b>Paragraph 7.4.13</b> and <b>7.4.14</b> of <b>Chapter 7</b> of the ES state <i>“The study area for</i></p>

	<p><i>considered as appropriate”.</i></p>	<p><i>the operational noise assessment has been determined using the guidance contained within DMRB HD 213/11, paragraph A1.11. The resulting study area is shown on Figure 7.1. The DMRB HD 213/11 study area requires calculations of noise effects within 600m of new, improved and bypassed routes, and within 600m of any other ‘affected routes’ within 1km of new, improved and bypassed routes. This 600m buffer extent is referred to as the ‘calculation area”.</i></p> <p><b>Paragraph 7.4.18</b> of Chapter 7 confirms that “<i>the study area for operational noise is defined as</i></p> <p><i>-1km from the Scheme carriageway edge (including proposed, bypassed or improved routes), which also encompasses the 600m calculation area; and</i></p> <p><i>-50m from any affected routes beyond 1 km”.</i></p>
<p>5.191 NPS NN 5.10.6 NPS for Ports</p>	<p>Operational noise, with respect to human receptors, should be assessed using the principles of the relevant British Standards and other guidance. The prediction of road traffic noise should be based on the method described in Calculation of Road Traffic Noise. The prediction of noise from new railways should be based on the method described in Calculation of Railway Noise. For the prediction, assessment and management of construction noise, reference should be made to any relevant British Standards and other guidance which also give examples of mitigation</p>	<p><b>Chapter 7</b> of the ES defines the operational and construction noise standards required for the Scheme. Such assessments will include, where relevant, reference to the British Standard, and Calculation of Road Traffic Noise. Operational and construction levels for noise have been defined in accordance with;</p> <ul style="list-style-type: none"> <li>• Noise Insulation Regulations 1975 (as amended 1988) (NIR);</li> <li>• Environmental Noise (England) Regulations 2006 (S.I. 2006/2238); and</li> <li>• Directive 2002/49/EC of the European Parliament – Assessment and management of environmental noise (better known as the Environmental Noise Directive - END).</li> </ul>

	strategies.	
5.192 NPS NN 5.10.7 NPS for Ports	<p><i>“The applicant should consult Natural England with regard to assessment of noise on designated nature conservation sites, protected landscapes, protected species or other wildlife. The results of any noise surveys and predictions may inform the ecological assessment. The seasonality of potentially affected species in nearby sites may also need to be taken into account”.</i></p> <p>Paragraph 5.10.7 of the PNPS includes similar requirement, but also includes a requirement to consult the Environment Agency and the MMO in relation to marine protected species in England.</p>	<p>The assessment of acoustics in <b>Chapter 7</b> of the ES also takes into account relevant information contained in aspect chapters elsewhere in the ES, including Nature Conservation (<b>Chapter 8</b>).</p> <p>During construction and operation, and with regards to noise and vibration, <b>Chapter 8</b> concludes that negligible (not significant) effects will result from the Scheme on Statutory Sites, benthic ecology and fish, breeding birds and bats prior to the implementation of mitigation measures.</p> <p><b>Paragraph 8.8.117</b> in <b>Chapter 8</b> of the ES concludes that, in relation to effects on water voles due to noise, there would be a minor effect (not significant) prior to the implementation of additional operational phase mitigation measures.</p> <p><b>Paragraph 8.8.120 – 8.8.121</b> concludes that, taking into account the local value of bat populations at the Principal Application Site and the current urban environment of the Scheme already being exposed to levels of noise and disturbance operational activities that will directly affect bat populations are unlikely. On this basis <b>Chapter 8</b> predicts the effects upon bats due to noise would be negligible.</p> <p>Noise and vibration impacts have also been considered on the following European Designated Sites within the HRA (DCO Document <b>6.11</b>);</p> <ul style="list-style-type: none"> <li>• Southern North Sea cSAC;</li> <li>• Outer Thames Estuary SPA;</li> <li>• Breydon Water SPA;</li> <li>• Breydon Water Ramsar;</li> </ul>

		<ul style="list-style-type: none"> <li>• Great Yarmouth and North Denes SPA;</li> <li>• The Broads SAC;</li> <li>• Broadland SPA; and</li> <li>• Broadland Ramsar.</li> </ul> <p>The HRA concludes that the Scheme, alone or in combination with any other plan or proposal, would not affect the integrity of any European Site.</p> <p><b>Table 3-1</b> in the HRA summarises the content of pre-application consultation with Natural England, the EA and MMO. Included is advice in relation to the consideration of the effects of noise on habitats and species protected under the Habitat Regulations.</p>
5.193 NPS NN	Developments must be undertaken in accordance with statutory requirements for noise. Due regard must have been given to the relevant sections of the Noise Policy Statement for England, National Planning Policy Framework and the Government's associated planning guidance on noise.	<p><b>Section 7.1</b> in <b>Chapter 7</b> of the ES recognises the requirement for the proposed development to be in accordance with Noise Policy Statement for England, NPPF and the Government's associated planning guidance on noise.</p> <p><i>"The assessment has been informed by relevant policies, legislation, standards and guidelines relating to noise and vibration, the most relevant of which are the Government's Noise Policy Statement for England and the DMRB (Ref 7. Ref 7.12). The content of these and other relevant documents has been summarised in this chapter"</i> (DCO Document <b>6.1</b>, <b>paragraph 7.1.6</b>).</p>
5.194 NPS NN	The project should demonstrate good design through optimisation of scheme layout to minimise noise emissions and, where possible, the use of landscaping, bunds or noise barriers to reduce noise	<b>Section 7.8</b> of <b>Chapter 7</b> states that significant adverse effects are predicted during the operational phase of the Scheme during the short and long-term. Consequently, mitigation measures have been explored to consider whether these effects can be reduced or offset in accordance with

	<p>transmission. The project should also consider the need for the mitigation of impacts elsewhere on the road and rail networks that have been identified as arising from the development, according to Government policy.</p>	<p>5.194 of the NPS NN. Consideration has been given to the following mitigation measures:</p> <ul style="list-style-type: none"> <li>• Changing location or alignment of the road;</li> <li>• Changing the height of the road;</li> <li>• Use of low-noise thin surface course system;</li> <li>• Reducing traffic speed; and</li> <li>• Use of roadside acoustic barriers, screens or bunds.</li> </ul> <p>As noted in <b>paragraph 7.10.5</b> of the ES, opportunities for mitigation measures to offset the predicted significant adverse effects are limited due to the urban nature of the surrounding area. Therefore, significant adverse effects remain, notwithstanding that some receptors may be eligible for noise insulation under the NIR. The OCoCP (DCO Document <b>6.16</b>), upon which the final CoCP will be based, in accordance with a Requirement in the draft DCO (DCO Document <b>3.1</b>), sets out measures to be implemented during construction to mitigate the effects of noise. For example, construction activities would be carefully planned appropriate plant carefully selected to reduce noise emissions.</p>
5.195 NPS NN	<p>The Secretary of State should not grant development consent unless satisfied that the proposals will meet, the following aims, within the context of Government policy on sustainable development:</p> <ul style="list-style-type: none"> <li>• avoid significant adverse impacts on health and quality of life from noise as a result of the new development;</li> <li>• mitigate and minimise other adverse</li> </ul>	<p>According to the results of Defra’s strategic noise maps, dwellings in NIAs are already exposed to the highest noise levels from major roads and residents are at a greater risk of experiencing a significant adverse impact to health and quality of life. Therefore, a more detailed analysis of the predicted noise levels and noise level changes because of the Scheme has been undertaken at each NSR within each NIA, as presented in Error! Reference source not found. of the ES.</p> <p>In the short-term, there is one short-term significant effect (moderate) in NIA 4989. In the long-term, there are two long-</p>

	<p>impacts on health and quality of life from noise from the new development; and</p> <ul style="list-style-type: none"> <li>• contribute to improvements to health and quality of life through the effective management and control of noise, where possible.</li> </ul>	<p>term significant effects (moderate), both in NIA 4989. There are no significant beneficial effects at dwellings within NIAs. Most dwellings experience non-significant effects (slight or neutral); 107 (99%) in the short-term and 106 (98%) in the long-term.</p>
5.196 NPS NN	<p>In determining an application, the Secretary of State should consider whether requirements are needed which specify that the mitigation measures put forward by the applicant are put in place to ensure that the noise levels from the project do not exceed those described in the assessment or any other estimates on which the decision was based.</p>	<p>Mitigation measures in respect of noise and vibration are included in <b>Section 4.2</b> of the OCoCP (DCO Document <b>6.16</b>). The provision of the measures included in the OCoCP is secured in a Requirement in <b>Schedule 2</b> of the draft DCO (DCO Document <b>3.1</b>).</p>
5.198 NPS NN 5.10.12 NPS for Ports	<p><i>“Mitigation measures for the project should be proportionate and reasonable and may include one or more of the following:</i></p> <ul style="list-style-type: none"> <li><i>-engineering: containment of noise generated;</i></li> <li><i>-materials: use of materials that reduce noise, (for example low noise road surfacing);</i></li> <li><i>-lay-out: adequate distance between source and noise-sensitive receptors; incorporating good design to minimise noise transmission through screening by</i></li> </ul>	<p>The following mitigation measures were considered in <b>Chapter 7</b> of the ES but discounted due to impracticality reasons (Section <b>7.8</b>):</p> <ul style="list-style-type: none"> <li>• Changing location or alignment of the road: <i>“The third crossing necessarily connects the west side of the river with the port and outer harbour on the eastern side, due to the layout of Great Yarmouth, and therefore any crossing would always pass near existing dwellings”;</i></li> <li>• Changing the height of the road: <i>“To be effective, the new road height would need to block line-of-sight between road and receiver. This would mean either raising/lowering the height of the road above/below the height of the surrounding buildings. No further consideration has therefore been given to route</i></li> </ul>

	<p><i>natural or purpose built barriers;</i></p> <p><i>-administration: specifying acceptable noise limits or times of use (e.g., in the case of railway station PA systems)”.</i></p> <p>Paragraph 5.10.12 of the PNPS identifies similar requirements, but does not include materials.</p>	<p><i>alignment and height changes”;</i></p> <ul style="list-style-type: none"> <li>• <i>Use of low-noise thin surface course system and reducing traffic speed: “Whilst low noise road surfaces are available, these are most effective at higher speeds (around 50 mph and above), where the noise from the tyre and road interaction is dominant. At lower speeds, as in this case, where the engine and exhaust noise is dominant, any noise reduction afforded by such a measure would be minimal. Furthermore, given the route speed is already relatively low, a further reduction in speed is also not considered a viable measure”;</i> and</li> <li>• <i>Use of roadside acoustic barriers, screens or bunds: “Noise barriers are only effective when they break the line of sight between a noise source and the receptor. Therefore, to provide effective noise reduction for properties fronting the existing local road network, a continual barrier would need to be erected along the road edge, and any break in the barrier would negate its value in that location. This would create obvious difficulties for accessing driveways or the pavement from a parked car”.</i></li> </ul> <p>Mitigation measures in respect of noise and vibration are included in <b>Section 4.2</b> of the OCoCP (DCO Document <b>6.16</b>).</p> <p>During the operational phase, <b>Paragraph 7.8.127</b> in <b>Chapter 7</b> of the ES reports that <i>“the bridge opening alarm effects are not significant and are therefore not considered further (i.e. no mitigation is required)”</i>.</p>
5.199 NPS NN	<i>“For most national network projects, the</i>	ES <b>Chapter 7</b> confirms that the Scheme conforms with the

	<p><i>relevant Noise Insulation Regulations will apply. These place a duty on and provide powers to the relevant authority to offer noise mitigation through improved sound insulation to dwellings, with associated ventilation to deal with both construction and operational noise. An indication of the likely eligibility for such compensation should be included in the assessment. In extreme cases, the applicant may consider it appropriate to provide noise mitigation through the compulsory acquisition of affected properties in order to gain consent for what might otherwise be unacceptable development. Where mitigation is proposed to be dealt with through compulsory acquisition, such properties would have to be included within the development consent order land in relation to which compulsory acquisition powers are being sought”.</i></p>	<p>Noise Insulation Regulations 1975 (as amended 1988) (NIR) by giving the context for the assessment of road traffic noise impacts from the Scheme.</p> <p><b>Chapter 7</b> provides an indicative count of dwellings that may be eligible for noise insulation. Paragraph <b>7.8.94</b> states that an indicative assessment identifies 56 dwellings which may be eligible for noise insulation. These properties are within 300 m of the Scheme, experience a noise level of at least 68 dB L<sub>A10,18hr</sub> and are predicted to have an increase of at least 1 dB (A) because of the Scheme.</p> <p>At detailed design stage, further analysis will need to be undertaken to determine whether the noise from traffic on the road to which the Regulations apply contributes at least 1 dB L<sub>A10,18hr</sub> to the Relevant Noise Level.</p>
5.200 NPS NN	<p><i>“Applicants should consider opportunities to address the noise issues associated with the Important Areas as identified through the noise action planning process”.</i></p>	<p>There are six Noise Important Areas (NIA) identified within the operational study area, containing a total of 108 residential properties (DCO Document <b>6.1</b>, paragraph <b>7.8.83</b>). In the short-term, one dwelling in NIA 4989 is predicted to experience a minor increase (+1 dB change) in noise level because of the Scheme. The other 107 dwellings are predicted to experience a noise level change in both the short and long-term that is either no change or negligible impact, which are considered imperceptible.</p>



Impacts on transport networks		
5.203 NPS NN	<i>“Applicants should have regard to the policies set out in local plans, for example, policies on demand management being undertaken at the local level”.</i>	<p>The Transport Assessment (TA, DCO Document <b>7.2</b>), has been prepared taking into account both national and local planning policy and supplementary development guidance. This includes the NPS NN and NPPF as well as the local planning documents of Great Yarmouth Borough Council and the Norfolk Local Transport Plan.</p> <p>The policy review in the Case for the Scheme document (DCO document <b>7.1</b>) has demonstrated that the Scheme aligns closely to national, regional and local transport plans and policies.</p>
5.204 NPS NN	<i>“Applicants should consult the relevant highway authority, and local planning authority, as appropriate, on the assessment of transport impacts”.</i>	<p>A summary of consultation responses regarding the scope and methodology of assessment of transport impacts is outlined in <b>Tables 17.2 to 17.4</b> in <b>Chapter 17</b> of the ES and include responses from NCC, Highways England and DfT.</p> <p>The Applicant is aiming to agree a SoCG with Highways England. Work on the SoCG is underway, and the Applicant envisages that the SoCG will be progressed and developed throughout the DCO examination period.</p>
5.205 NPS NN	<i>“Applicants should consider reasonable opportunities to support other transport modes in developing infrastructure. As part of this, the applicant should provide evidence that as part of the project they have used reasonable endeavours to address any existing severance issues that act as a barrier to non-motorised users”.</i>	<p>The Case for the Scheme recognises the current deficiencies of the local network to support pedestrian and cyclist movements between Great Yarmouth and the South Denes peninsula (<b>Section 4.3</b>). <b>Chapter 17</b> of the ES, paragraph <b>17.5.8</b>, states bus users, cyclists and pedestrians currently have long, indirect journeys onto the peninsula, which discourages commuting to work by more sustainable modes.</p> <p>There are no footways on Breydon Bridge and as such the only means of access for pedestrians across the River Yare is</p>

		<p>provided by Haven Bridge. As a result, for many trips the time and distance involved is significant when compared with the equivalent distance with the Scheme in place. The Scheme will provide a step free, shorter, traffic segregated route for pedestrians and cyclists between the west and east of the town. Furthermore, the Scheme has been designed with due consideration to the safety and convenience of routes for pedestrians and cyclists. These benefits are aimed at ensuring the safety of NMU users, whilst promoting sustainable modes of transport.</p> <p><b>Section 7.10</b> of the TA states there will be a general improvement in bus journey times as a result of the Scheme with an average saving of 12 seconds (1%) in the AM peak and 42 seconds (3%) in the PM peak. In addition, the Scheme presents an opportunity for new, more direct bus routes into the South Denes area to be introduced and initial consultation has been undertaken with representatives from First Bus regarding this. The Scheme also incorporates significant improvements to the bus infrastructure on the western side of the river, by replacing the existing sub-standard bus stop on Southtown Road with an improved bus stop which can accommodate two buses and which ties into the revised pedestrian and cycle routes in the locality.</p>
5.206 NPS NN	<p><i>“For road and rail developments, if a development is subject to EIA and is likely to have significant environmental impacts arising from impacts on transport networks, the applicant’s ES should describe those impacts and mitigating</i></p>	<p>A Transport Assessment has been prepared (DCO document <b>7.2</b>) and an assessment of the likely significant effects of the Scheme on traffic and transport is set out within <b>Chapter 17</b> of the ES.</p> <p>Paragraph <b>17.10.3</b> of Chapter 17 concludes that during construction, the Scheme would be likely to have a temporary,</p>

	<p><i>commitments. In all other cases the applicant's assessment should include a proportionate assessment of the transport impacts on other networks as part of the application".</i></p>	<p>slight adverse impact on all traffic and transport effects assessed. In addition, embedded mitigation (discussed in paragraphs <b>17.7.6 – 17.7.9</b>) measures to mitigate the effects of the Scheme on traffic and transport during construction are set out in the Framework Construction Traffic Management Plan (CTMP). The Framework CTMP forms Appendix A of the OCoCP (DCO Document <b>6.16</b>). The provision of the measures included in the OCoCP is secured in a Requirement in <b>Schedule 2</b> of the draft DCO (DCO Document <b>3.1</b>).</p> <p>In operation, the ES chapter concludes that "<i>the Scheme would have a large beneficial (significant) effect on pedestrian and cyclist journey times and delay, a moderate beneficial (significant) effect for public transport users, driver delay and fear and intimidation of non-motorised users and a slight beneficial effect on collisions and safety</i>" (<b>paragraph 17.10.4</b>).</p>
5.208 NPS NN	Refers to the preparation of Travel plans to mitigate transport impacts.	In relation to Travel Plans, this does not apply as there is no development associated with the Scheme. A travel plan is therefore not considered to be necessary.
5.209 NPS NN	Refers to schemes that impact on the Strategic Road Network. Applicants should have regard to DfT Circular 02/2013 The Strategic Road Network and the delivery of sustainable development (or prevailing policy) which sets out the way in which the highway authority for the Strategic Road Network, will engage with communities and the development industry to deliver sustainable development and, thus, economic growth,	<p>DfT Circular 02/2013 requires new schemes to gain approval from Highways England if there is to be an impact on the Strategic Road Network (SRN).</p> <p>The Applicant and Highways England have been working closely together throughout the development of the Scheme, and have recently completed a joint study into the operational performance and value for money of different combinations of projects at nearby junctions on the SRN, taking into account the Scheme. Highways England are considering undertaking further work to identify the form and combination of junction improvements on the SRN which would work better with the</p>

	whilst safeguarding the primary function and purpose of the Strategic Road Network.	<p>Scheme in place.</p> <p>The Applicant is aiming to agree a Statement of Common Ground (SoCG) with Highways England. Work on the SoCG is underway, and the Applicant envisages that the SoCG will be progressed and developed throughout the DCO examination period.</p>
5.210 NPS NN	<i>“If new transport infrastructure is proposed, applicants should discuss with network providers the possibility of co-funding by Government for any third-party benefits. Guidance has been issued in England which explains the circumstances where this may be possible. The Government cannot guarantee in advance that funding will be available for any given uncommitted scheme at any specified time, and cannot provide financial support to a scheme that solely mitigates the impacts of a specific development. Any decisions on co-funded transport infrastructure will need to be taken in the context of the Government’s wider policy of transport improvements”.</i>	<p>As per the Funding Statement (DCO Document <b>4.1</b>) a funding contribution was approved by DfT in November 2017 with the Scheme being given “Programme Entry” to the DfT’s Large Local Major Schemes programme and an award of provisional funding (with a fixed maximum DfT contribution). The DfT’s contribution is capped at £98.088 million and is subject to Full Approval of the Scheme being granted by the DfT following the completion of statutory procedures.</p> <p>Norfolk County Council approved the addition of the £120.653m, full cost of the Scheme in to the capital programme at its meeting on the 15 October 2018. This includes the £98m DfT contribution, the £20.565m which is currently underwritten by the Council’s prudential borrowing and a £2.0m contribution from the New Anglia Local Enterprise Partnership (NALEP).</p>
5.216 NPS NN	<i>“Where development would worsen accessibility such impacts should be mitigated so far as reasonably possible. There is a very strong expectation that impacts on accessibility for non-motorised users should be mitigated”.</i>	<p>As set out in <b>Section 5.5</b> of the Case for the Scheme, the Scheme provides a quicker route between the west and east of the town for non-motorised users (NMUs) and significantly improves accessibility for pedestrians and cyclists, which encourages more sustainable modes of transport and reduces community severance.</p>

5.217 NPS NN	<i>“Mitigation measures may relate to the design, lay-out or operation of the scheme”.</i>	<p>Embedded design mitigation and construction phase mitigation is referred to in the response above to NPS NN 5.206.</p> <p>The TA (DCO Document <b>7.2</b>) and <b>Chapter 17</b> of the ES includes details of mitigation measures proposed to address the potential adverse impacts of the Scheme, including:</p> <ul style="list-style-type: none"> <li>• Variable Messaging Signs (VMS);</li> <li>• Monitoring changes in traffic patterns, accidents and performance of key junctions across the network;</li> <li>• Review and if necessary update timings at a number of junctions as part of NCC’s “business as usual” management of the local highway network; and</li> <li>• Ongoing liaison with Highways England.</li> </ul>
<b>Water quality and resources</b>		
5.220 NPS NN	<i>“Where applicable, an application for a development consent order has to contain a plan with accompanying information identifying water bodies in a River Basin Management Plan”</i>	<b>Chapter 11</b> of the ES assesses the likely significant effects of the Scheme on the water environment. The assessment includes a Water Framework Directive Assessment ( <b>Appendix 11E</b> ). DCO Document <b>6.4B</b> identifies water bodies on the Water Bodies in a ‘River Basin Management Plan’ Plan.
5.221 NPS NN	<i>“Applicants should make early contact with the relevant regulators, including the Environment Agency, for abstraction licensing and with water supply companies likely to supply the water. Where a development is subject to EIA and the development is likely to have significant adverse effects on the water environment, the applicant should</i>	<p>The Consents and Agreements Position Statement (DCO document <b>7.3</b>) sets out the Applicant's acknowledgement of the consents required, whether they are accounted for in the DCO and the discussions held with the EA, Lead Local Flood Authority (NCC) and the IDB.</p> <p>The Applicant is aiming to agree Statements of Common Ground (SoCGs) with the EA, Natural England and the IDB. Work on the SoCGs is underway, and the Applicant envisages that the SoCGs will be progressed and developed throughout</p>

	<p><i>ascertain the existing status of, and carry out an assessment of the impacts of the proposed project on water quality, water resources and physical characteristics as part of the ES”.</i></p>	<p>the DCO examination period.</p> <p><b>Chapter 11</b> of the ES provides an assessment of the likely significant effects of the Scheme on the water environment.</p> <p>A WFD assessment has been undertaken to assess the Scheme against the key objectives of the WFD (Appendix <b>11E</b>, DCO Document <b>6.2</b>).</p> <p>The WFD assessment confirms that, <i>“whilst the Scheme may have some localised effects on watercourses directly affected by the Scheme, and the local groundwater aquifer, these are insufficient to lead to any deterioration in status or ability to meet the objectives of the respective waterbodies. The Principal Application Site represents a very small proportion of the waterbody catchments and the works are relatively small in the context of the infrastructure and development already present. The potential impacts of the Scheme do not affect or alter the existing pressures on the waterbodies, which are largely due to flood and coastal protection; navigation, ports and harbours; continuous sewage discharge; poor nutrient management and groundwater abstractions.</i></p> <p><i>Furthermore, the Scheme will not prevent the achievement of the wider WFD objectives in the Anglian River Basin District and is not predicted to have an impact on any other waterbody within the Anglian River Basin District or the proposed mitigation measures to achieve Good status”.</i></p>
5.222 NPS NN	<p><i>“For those projects that are improvements to the existing infrastructure, such as road widening, opportunities should be taken,</i></p>	<p>The Scheme forms new infrastructure and not an improvement to existing infrastructure, therefore this paragraph does not apply.</p>

	<p><i>where feasible, to improve upon the quality of existing discharges where these are identified and shown to contribute towards Water Framework Directive commitments”.</i></p>	
<p>5.223 NPS NN 5.6.4 NPS for Ports</p>	<p><i>“Any ES should describe:</i></p> <ul style="list-style-type: none"> <li><i>-the existing quality of waters affected by the proposed project;</i></li> <li><i>-existing water resources affected by the proposed project and the impacts of the proposed project on water resources;</i></li> <li><i>-existing physical characteristics of the water environment (including quantity and dynamics of flow) affected by the project, and any impact of physical modifications to these characteristics;</i></li> <li><i>-any impacts of the proposed project on water bodies or protected areas under the Water Framework Directive and source protection zones (SPZs) around potable groundwater abstractions; and</i></li> <li><i>-any cumulative effects”.</i> <p>Paragraph 5.6.4 of the NPS for Ports identified similar requirements to paragraph 5.223 of the NPS NN.</p> </li></ul>	<p>Existing physical characteristics of the water environment are set out in <b>Section 11.5</b> (Baseline Environment) of <b>Chapter 11</b>. Paragraph <b>11.5.13</b> of ES <b>Chapter 11</b> describes the quality of the existing watercourses with the study area. The River Yare, the River Bure and Breydon Water are all part of the Bure &amp; Waveney &amp; Yare &amp; Lothing waterbody and are overall assessed to be moderate in 2016.</p> <p><b>Tables 11-12, 11-13, 11-14 and 11-15</b> of <b>Chapter 11</b> (Water Environment) of the ES summarise the likely effects of the Scheme upon the water environment including surface and ground water during construction and operation. The tables include a range of mitigation measures, such as monitoring (water quality and groundwater level), spillage containment, scour protection, SUDS treatment and use of clean drilling techniques. The measures are summarised in <b>Table 3.6</b> of the <b>Mitigation Schedule</b> (DCO Document <b>6.13</b>).</p> <p>The WFD assessment undertaken as part of the ES confirms that, in terms of its impact upon waterbodies, the Scheme would not conflict with the objectives of the WFD nor would it affect the status of the waterbodies assessed (<b>Table 11.16</b> in <b>Chapter 11</b>).</p> <p>There is no formally designated groundwater Source Protection Zone (SPZ) within 2.0km of the Study Area</p>

		<p><b>(paragraph 11.5.65).</b></p> <p>Paragraph <b>11.8.97</b> states, in terms of cumulative effect, “<i>Whilst there are slight changes in velocity magnitude (and subsequent erosion) at Haven Bridge the main impact is local to the Principal Application Site. The results show that flow velocities, and erosion, are lower between the two bridges with no significant change resulting from the Scheme. The Scheme is therefore not considered to lead to any significant cumulative hydromorphological impact through the affected reach. The Scheme is shown to have negligible impacts on the tidal regime of the estuary</i>”.</p>
5.225 NPS NN	The Secretary of State will generally need to give impacts on the water environment more weight where a project would have adverse effects on the achievement of the environmental objectives established under the Water Framework Directive.	The WFD assessment undertaken as part of the ES confirms that, in terms of its impact upon waterbodies, the Scheme would not conflict with the objectives of the WFD nor would it affect the status of the waterbodies assessed (Table <b>11.16</b> in <b>Chapter 11</b> ).
5.226 NPS NN	The Secretary of State should be satisfied that a proposal has had regard to the River Basin Management Plans and the requirements of the Water Framework Directive (including Article 4.7) and its daughter directives, including those on priority substances and groundwater. The specific objectives for particular river basins are set out in River Basin Management Plans. In terms of Water Framework Directive compliance, the overall aim of projects should be no	<p>River Basin Management Plans (RBMPs) are published under the WFD and focus on the protection, improvement and sustainable use of the water environment. The Anglian River Basin Management Plan has been identified as relevant to the Scheme. The WFD assessment undertaken as part of the ES confirms that, in terms of its impact upon waterbodies, the Scheme would not conflict with the objectives of the WFD nor would it affect the status of the waterbodies assessed (Table <b>11.16</b> in <b>Chapter 11</b>).</p> <p>As set out in <b>Table 11.4</b> in <b>Chapter 11</b> of the ES, the Broads &amp; Norfolk Rivers IDB &amp; the Pevensey and Cuckmere Water Level Management Board have been consulted regarding</p>



	<p>deterioration of ecological status in watercourses, ensuring that Article 4.7 of the Water Framework Directive Regulations does not need to be applied. The Secretary of State should also consider the interactions of the proposed project with other plans such as Water Resources Management Plans, Shoreline/Estuary Management Plans and Marine Plans.</p>	<p>information on the Water Level Management Plan, water quality monitoring, surface water abstractions (licensed/unlicensed), consented and unconsented discharges and details of significant structures within the IDB catchment. The IDB has no specific concerns on Water Level Management Plan objectives.</p> <p><b>Paragraph 11.4.6</b> in <b>Chapter 11</b> of the ES states that the Scheme is not expected to cause significant changes to coastal processes, such as sediment transport, erosional and depositional patterns and beach development along the Great Yarmouth shoreline.</p>
5.227 NPS NN	<p>The Examining Authority and the Secretary of State should consider proposals put forward by the applicant to mitigate adverse effects on the water environment and whether appropriate requirements should be attached to any development consent and/or planning obligations. If the Environment Agency continues to have concerns and objects to the grant of development consent on the grounds of impacts on water quality/resources, the Secretary of State can grant consent, but will need to be satisfied before deciding whether or not to do so that all reasonable steps have been taken by the applicant and the Environment Agency to try to resolve the concerns, and that the Environment</p>	<p>The mitigation of adverse effects on the water environment are detailed in <b>Section 11.8</b> of the ES <b>Chapter 11</b>, the Drainage Strategy (ES Appendix <b>12C</b>, DCO Document <b>6.2</b>) and the OCoCP (DCO Document <b>6.16</b>). The measures are summarised in <b>Table 3.6</b> of the Mitigation Schedule (DCO Document <b>6.13</b>).</p> <p>The Applicant is aiming to agree a SoCG with the EA. Work on the SoCG is underway, and the Applicant envisages that the SoCG will be progressed and developed throughout the DCO examination period.</p>

	Agency is satisfied with the outcome.	
5.228 NPS NN	<i>“The impact on local water resources can be minimised through planning and design for the efficient use of water, including water recycling”.</i>	<p>A Drainage Strategy (<b>Appendix 12C</b> in DCO Document <b>6.2</b>) has been prepared and provides details of the attenuation required as part of the Scheme.</p> <p><b>Paragraph 1.6.1</b> of the Drainage Strategy sets out the Design Standards to be used to develop the drainage strategy into a detailed design. They include:</p> <ul style="list-style-type: none"> <li>• Design Manual for Roads and Bridges - Volume 4 Section 2 based on HD33/16, HA 107/04 and HD45/09;</li> <li>• CIRIA C753 - The SuDS Manual;</li> <li>• Sewers for Adoption 7th Edition 2012;</li> <li>• Guidance on Norfolk County Councils Lead Local Flood Authority role as Statutory Consultee to Planning (located on Norfolk County Council's Information for Developers webpage); and</li> <li>• DEFRA - Non-statutory technical standards for sustainable drainage systems</li> </ul> <p>A Requirement (<b>Schedule 2</b> of the draft DCO, DCO Document <b>3.1</b>) has been prepared to secure the submission of a surface water drainage system, to be provided in accordance with the Drainage Strategy, and provide a timetable for implementation.</p> <p>The Scheme design incorporates SuDs, in the form of swales, on the western side of the Scheme (paragraph <b>2.3.17</b> of the Drainage Strategy (<b>Appendix 12C</b>, DCO Document <b>6.2</b>)).</p>
5.229 NPS NN	<i>“The Secretary of State should consider whether the mitigation measures put forward by the applicant which are</i>	Water mitigation as part of the Scheme is detailed in several DCO documents. Mitigation to be employed in order to limit the operational and construction effects of the Scheme are

	<p><i>needed for operation and construction (and which are over and above any which may form part of the project application) are acceptable. A construction management plan may help codify mitigation”.</i></p>	<p>detailed in the following documentation;</p> <ul style="list-style-type: none"> <li>• ES Chapter 11, <b>Section 11.8</b> (DCO Document <b>6.1</b>)</li> <li>• Drainage Strategy, <b>Sections 2.3 – 2.4</b> (Appendix 12C, DCO Document <b>6.2</b>);</li> <li>• OCoCP, <b>Section 6.2</b> (DCO Document <b>6.16</b>); and</li> <li>• Mitigation Schedule (DCO document <b>6.13</b>).</li> </ul> <p>The OCoCP identifies mitigation to be undertaken during construction.</p> <p>Details of attenuation, pollution treatment and SuDS will be included within the Contractor’s detailed surface water drainage design in accordance with the Drainage Strategy.</p>
<p>5.230 NPS NN</p>	<p><i>“The project should adhere to any National Standards for sustainable drainage systems (SuDs). The National SuDs Standards will introduce a hierarchical approach to drainage design that promotes the most sustainable approach but recognises feasibility, and use of conventional drainage systems as part of a sustainable solution for any given site given its constraints”.</i></p>	<p>The design of the Scheme has been undertaken in accordance with CIRIA C753 (The SuDS Manual).</p> <p>A Requirement has been prepared to secure the submission of a surface water drainage system, be in accordance with the drainage strategy and include a timetable for implementation (<b>Schedule 2</b> of the draft DCO, DCO Document <b>3.1</b>).</p>
<p>5.231 NPS NN</p>	<p><i>“The risk of impacts on the water environment can be reduced through careful design to facilitate adherence to good pollution control practice. For example, designated areas for storage and unloading, with appropriate drainage facilities, should be marked clearly”.</i></p>	<p>Good practice pollution prevention measures in construction are included in the OCoCP (DCO Document <b>6.16</b>). A Requirement is included in <b>Schedule 2</b> of the draft DCO to secure the provision of the CoCP (DCO Document <b>3.1</b>).</p>



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<sup>i</sup> Email from Neil Shaw, Strategic Director for GYBC to Jane Linley, NPLAW, dated 14/03/2019

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## APPENDIX B – SECTION 35 DIRECTION



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Our Ref:  
Your Ref:

DATE 26<sup>th</sup> February 2018

Mr Mark Kemp  
Major Projects (Highways) Team  
Manager  
Planning and Economy  
Norfolk County Council County  
Hall  
Martineau Lane Norwich  
Norfolk  
NR1 2DH

Dear Mark,

**DIRECTION BY THE SECRETARY OF STATE UNDER SECTION 35 OF THE  
PLANNING ACT 2008 RELATING TO THE GREAT YARMOUTH THIRD RIVER  
CROSSING. NORFOLK.**

By letter to the Secretary of State received on 29<sup>th</sup> January 2018, Norfolk County Council formally requested that the Secretary of State exercise the power vested in the Secretary of State under section 35 of the Planning Act 2008 ("the Act") to direct that the proposed scheme set out in the Norfolk County Council's letter and known as the Great Yarmouth Third River Crossing, as well as any associated matters, be treated as development for which development consent is required.

The Secretary of State is satisfied that:

- the development does not currently fall within the definition of a "nationally significant infrastructure project" and therefore it is appropriate to consider use of the power in section 35; and
- Norfolk County Council's request constitutes a "qualifying request" in accordance with section 35(10) of the Act.

The Secretary of State has made a decision within the primary deadline set out in section 35A(2) and wishes to convey that decision.

Having considered the details of the Great Yarmouth Third River Crossing set out in the request, the Secretary of State is of the view that this development by itself is nationally significant, for the reasons set out in the Annex below.

Accordingly, as the Secretary of State is satisfied that the proposed Great Yarmouth Third Rive Crossing is nationally significant, THE SECRETARY OF STATE DIRECTS that development, together with any matters associated with it, is to be treated as development for which development consent is required.

In addition, the Secretary of State further directs that any proposed application in relation to the Great Yarmouth Third River Crossing is to be treated as a proposed application for which development consent is required.

This direction is given without prejudice to the Secretary of State's consideration of any application for development consent which is made in relation to the Great Yarmouth Third River Crossing.

Signed by

Maureen Pullen  
A Civil Servant in the Department for Transport  
For and On Behalf of the Secretary of State

26<sup>th</sup> February 2018

**ANNEX A****REASONS FOR THE DECISION TO ISSUE THE DIRECTION**

The Secretary of State is of the opinion that the Great Yarmouth Third River Crossing is of national significance for the following reasons:

- The Port has a nationally significant role in the renewable energy sector and the offshore gas and oil industry and the scheme will substantially improve connectivity and resilience for port activities;
- The scheme will support the delivery of existing and potential renewable energy NSIPs,
- Supports the Port's role as an International Gateway

In addition the scheme will

- Improve the offer of the Port through better connectivity to the Enterprise Zone



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## APPENDIX C – SECURITY TECHNICAL NOTE

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# 1 Introduction

## 1.1 Scheme Description

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**1.1.1** The Scheme involves the construction, operation and maintenance of a new crossing of the River Yare in Great Yarmouth. The Scheme consists of a new dual carriageway road, including a road bridge across the river, linking the A47 at Harfrey's Roundabout on the western side of the river to the A1243 South Denes Road on the eastern side. The Scheme would feature an opening span double leaf bascule (lifting) bridge across the river, involving the construction of two new 'knuckles' extending the quay wall into the river to support the bridge. The Scheme would include a bridge span over the existing Southtown Road on the western side of the river, and a bridge span on the eastern side of the river to provide an underpass for existing businesses, enabling the new dual carriageway road to rise westwards towards the crest of the new crossing.

**1.1.2** **Chapter 2** of Volume I of the Environmental Statement (ES) (DCO Document **6.1**) provides a full description of the Scheme and is accompanied by the General Arrangement (GA) Plan (DCO Document **2.2**).

## 1.2 Purpose of the Technical Note

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**1.2.1** This Technical Note, at a high level, describes how particular consideration has been given to the threat posed by hostile vehicles, both to the structure of the crossing itself and to those using it.

## 1.3 Approach

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**1.3.1** WSP UK Head of Security, the Centre for the Protection of National Infrastructure (CPNI) and Norfolk Police East Region Special Operations Unit, Counter Terrorism Security Advisor (CTSA) were consulted as part of this evaluation. CPNI is the UK Government authority that provides security advice to businesses and organisations across the national infrastructure sector.

**1.3.2** CPNI has not declared an interest in this project in terms of national infrastructure and is content for Norfolk Police CTSA alone to respond.

## 1.4 Key Security Challenges on the Scheme

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**1.4.1** The crossing will be used by vehicular traffic, cyclists and pedestrians, all travelling in relatively close proximity to each other. There have been a number of terrorist incidents across Europe (including two on bridges in

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London) in which motor vehicles (in this context therefore 'hostile vehicles') have been deliberately driven at pedestrians. There is legitimate public concern regarding such attacks, particularly where the potential escape routes are limited, as they are on a bridge. Consideration must also be given to how vulnerable any high-profile structure is itself to the threat of terrorist attack.

## 1.5 Hostile Vehicle Mitigation (HVM)

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1.5.1 The principal defence against hostile vehicles is either to prevent, restrict or otherwise control vehicular access, or to provide physical barriers or obstructions between motor traffic and any potential 'targets'. Potential targets in this case are other road users, in particular pedestrians and cyclists. The structure of the bridge itself is also a potential target for such attacks.

1.5.2 As it is impractical to restrict or otherwise control vehicular access to a free flow crossing, the principal protection against vehicle borne attack would be some form of passive Vehicle Security Barrier (VSB) system. The development of VSB designs is continual with a wide range of products available with specific strengths and weaknesses. These include:

- Bollards (fixed or removable);
- Continuous barriers;
- High impact kerbing;
- Planters;
- Integrated streetscape elements (e.g. seating, walls, balustrade); and
- Modular units (that can be built up to the required dimensions).

## 1.6 HVM Measures Deployed on London Bridges

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1.6.1 In 2017, two vehicle borne terrorist attacks occurred in which pedestrians were targeted. HVM, in the form of Varioguard type metal barriers between the footway and vehicle lanes, and bollards preventing vehicular access to the footways at either end of the bridges, were installed on a number of London bridges immediately following the second of these attacks (see **Plates 1 - 5** within **Annex A** of this document).

1.6.2 The HVM measures installed on London bridges in June 2017 were heavily criticised by cycling groups for increasing the risk to cyclists in the event of a road traffic collision (RTC) or encroachment into their nearside path by larger vehicles. Given the much higher frequency of road traffic collisions than terrorist attack, these were legitimate concerns. Later, revised designs on some bridges (see **Plate 5** in **Annex A**) placed HVM between the cycle tracks and other vehicular traffic. This removed the risk to cyclists using the cycle

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track, although it remained for those cyclists choosing to use the general traffic lanes to cross the bridge.

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## 2 Threat to Users of the Crossing from Hostile Vehicles

### 2.1 Threat Posed by Hostile Vehicles to Users of the Crossing

- 2.1.1** It is reasonable to assess the probability of any vehicle borne terrorist attack on the crossing, or on those using it, as being extremely low, and as such 'statistically insignificant' in terms of any reasoned hazard assessment. Public anxiety and fear regarding possible terrorist attack is understandable, particularly in the months immediately following any such incidents, but it is wholly disproportionate to the actual level of threat anywhere in the UK.
- 2.1.2** It has not been possible to 'score' the risk posed by hostile vehicles to users of the crossing, given the extremely low number of both incidents and casualties arising from them in the UK. This should be seen in the context of the number of both fatalities and injuries arising from road traffic collisions. Research has also suggested that increasing the perceived separation between motor vehicles and others - as such measures (particularly continuous barriers) inevitably would - can lead to marginally higher traffic speeds.
- 2.1.3** In any safety risk analysis, the mitigation or control measures being proposed must be proportionate to the actual risks being considered. The decision about whether or not a control measure is justified will often be based on economic grounds, but when considering the installation of HVM, the risk that these in turn would present to users of the bridge must also be considered.

### 2.2 Comparative Threat Arising from Hostile Vehicles and Road Traffic Collisions

- 2.2.1** In a sample three-year period to July 2006, on the 14 road bridges over the River Thames in London, there were a total of 160 recorded injury collisions. These resulted in 3 fatalities, 22 serious injuries, and 135 slight injuries. 122 of these collisions (75.7%) involved either a pedestrian, cyclist or motorcyclist. Traffic volume on the 14 bridges varies considerably, as does the actual collision rate. The highest collision rate per million vehicle miles (MVM) was recorded on Southwark Bridge, at 1.0 per MVM, with the average across all 14 bridges being 0.43 per MVM. (Transport for London , 2008)
- 2.2.2** The terrorist attack on Westminster Bridge in March 2017 resulted in 50 injuries, including 4 pedestrian fatalities, as a result of being struck by the vehicle involved. A similar terrorist attack on London Bridge in June 2017 resulted in 3 pedestrian fatalities. There have been no other recorded terrorist attacks on bridges in London or elsewhere in the UK. The frequency and probability of road traffic collisions (RTCs) occurring is clearly much higher

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than that of terrorist attack, even in very high-profile locations such as central London.

- 2.2.3** The risk here, as with any other bridge where vulnerable road users travel in relatively close proximity to motor vehicles, is that in the event of a deliberate intrusion by a hostile vehicle, people have less options in terms of where to run or jump in order to avoid the vehicle. However, this must be seen as an extremely marginal increase in risk from any other road or street environment where motor vehicles are moving in proximity to other users without any physical barrier between them.
- 2.2.4** Such risk is considered to be higher at or around iconic and internationally recognised structures, such as those found in central London. This is the primary reason HVM barriers have been installed on many London Bridges as described above.
- 2.2.5** It should be noted that the very large HVM barriers installed on London bridges (see **Plates 3** and **4** in **Annex A**) have in most cases been placed on the bridge deck itself, where deep foundations required for smaller and less obtrusive VSB bollards are not available.

## **2.3 Implications of the design of the Scheme on Threat Posed by Hostile Vehicles**

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- 2.3.1** The design for the Scheme includes a Vehicle Restraint System (VRS) at kerbside, separating both the shared footway/cycle path on the north side and the footway on the south side from vehicular traffic. This VRS system effectively provides an adequate level of HVM to prevent motor vehicles being deliberately driven at pedestrians or cyclists from the general traffic lanes on the bridge itself.
- 2.3.2** Pedestrian Guard Railing (PGR) is fitted to the bridge parapet itself. In combination with the VRS, this creates an area from which pedestrians and cyclists have a barrier at either side and, in the event of a vehicle being deliberately driven into these areas, effectively removes any potential escape route. This does not, of course, alter the actual terrorist attack threat level, which remains extremely low, but the design does introduce a risk in denying an escape route to pedestrians or cyclists in the event of such a vehicle borne attack.
- 2.3.3** A further consideration is that of a vehicle being driven into these areas in circumstances other than when this is terrorism related. This can include situations in which this occurs inadvertently, such as when involving a drunk driver, or deliberately, for example where a suspect vehicle is being pursued by police. Either is more likely to occur on the 4.5m shared footway/cycle path on the north side, where there is visibly more space for a motor vehicle to be driven.
-

2.3.4 The principle mitigation to prevent such vehicular access to the shared footway/cycle path on the north side and the footway to the south side is to install VSB at either end of the bridge structure, across the four entrance points to these areas. The most appropriate VSB is the installation of suitably designed and secured bollards. Such VSB elements should prevent vehicle access and encroachment into these areas in the event of a vehicle borne attack or other vehicle intrusion.

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## 3 Threat to the Bridge Structure from Hostile Vehicles and from Sea Level

- 3.1.1** The potential for catastrophic damage to be caused to the bridge structure itself from a road level, vehicle borne threat is extremely limited. The design allows for the bridge lift mechanisms to be installed and contained within the bascule chambers, and therefore are inaccessible to the public. There is therefore no risk of vehicles reaching the support or lifting mechanisms from the road passing over the crossing itself.
- 3.1.2** There is potential for interface between vehicles and the bridge structure at ground level on Bollard Quay, on Southtown Road, South Denes Road or Atlas Quay. The west chamber is a significant distance from Southtown Road on the West side. Given the distance from the road, these chambers have not been designed for full vehicle collision loads, which is in line with Industry Standards, Codes of Practice and guidance.
- 3.1.3** The east chamber is likewise a significant distance from South Denes Road; however, it would be accessible from any vehicle on Atlas Quay. As this is not a public area, it has not been proposed to design the chamber's walls for full vehicle collision loads, which again is in line with Industry Standards, Codes of Practice and guidance.
- 3.1.4** A vessel impact protection system will be fitted to the bridge to prevent contact between vessels and the structure itself.
- 3.1.5** The specified vessel collision load corresponds to the mast of a vessel hitting the bridge, therefore the risk of damage to bridge structure from someone intentionally piloting a vessel into the lowered bridge remains. The likelihood of this is considered to be low and could only be avoided by making the bridge higher, which was considered during early design and discounted due to inadequate justification.

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## 4 Consultation

### 4.1 Norfolk Police CTSA Consultation Response

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- 4.1.1 Following a review of the Scheme and the contents of this Technical Note, the Norfolk Police CTSA responded by email on 10<sup>th</sup> April 2019 as follows:

*“I appreciate that HVM measures may not be considered proportionate for this particular project, however, some level of deterrent should be considered. The Haven Bridge in Great Yarmouth (Bridge Road) has a level of deterrent in place. At this time Great Yarmouth is in the process of steady redevelopment and the potential for future threat change exists.”*

*At the time of this email, there is no information or intelligence to cause rebuttal to the threat assessment on the project as stated in the titled document (7.1c Security Technical Note). Details have been previously discussed in regards to PAS 170 and Visual Deterrent Street Furniture (VDSF) that I am happy to discuss again if so desired”.*

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## 5 Conclusions

### 5.1 Restricting or controlling vehicle access

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5.1.1 Preventing, restricting and/or controlling vehicular access to the general traffic lanes of the crossing would impinge on the intended function to an extent that would be both wholly impractical, and disproportionate to the existing threat level. The recommendation of this document is therefore that no such control measures are required.

### 5.2 Preventing attack on the bridge structure

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5.2.1 The threat to the structure of the Crossing itself, from either hostile vehicle attack, or from sea level attack using vessels or other means, is deemed extremely low. Additional infrastructure or re-design of any element of the structure to address such a low probability threat would therefore be wholly disproportionate. The recommendation of this Technical Note is therefore that no such control measures or mitigations are required.

### 5.3 Preventing vehicular access to pedestrian and cyclist areas

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5.3.1 The threat of a hostile vehicle attack against pedestrian and cyclist users of the crossing is assessed as extremely low. However, it should be noted that public anxiety and fear regarding possible terrorist attack is disproportionate to the actual level of threat. Consideration should also be given to inadvertent or other crime related vehicle intrusion into the pedestrianised areas of the bridge.

5.3.2 A decision whether or not to install VSB bollards to prevent vehicle intrusion into the areas of the bridge used by pedestrians and cyclists must consider the extremely low level of threat, the potential high severity outcome of such an incident should one occur, along with the disproportionate public fear of such events. These factors must be balanced against the cost of installing VSB bollards as described in this document.

5.3.3 On the basis that the threat of a hostile vehicle attack against pedestrian and cyclist users of the crossing is assessed as extremely low, VSB bollards are not included by the Applicant in the Scheme design. The Applicant will, however, continue to liaise with the Norfolk Police CTSA to ensure that alternative measures, such as Visual Deterrent Street Furniture (VDSF), are considered and employed if appropriate.

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## Annex A – HVM Measures Deployed on London Bridges



*Plate 1 - Varioguard type barriers between cycle/bus lane and footway on Westminster Bridge*



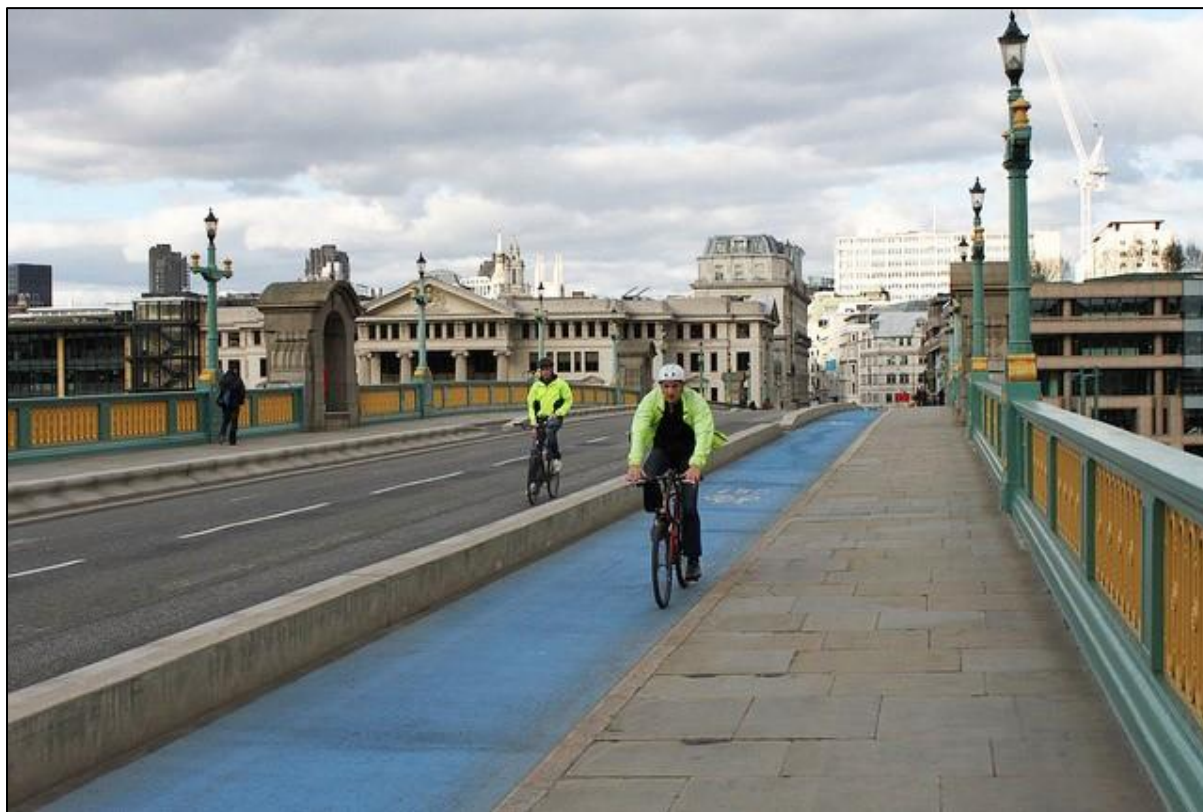
*Plate 2 - Kerbside location of Varioguard type barriers on Westminster Bridge*



*Plate 3 - Vehicle Security Barriers (VSBs) preventing vehicular access to footway on London Bridge. Note that these VSBs are mounted on the bridge deck itself, and the size and weight of these units is a direct result of the lack of depth available for foundation.*



*Plate 4 - VSBs providing a gap of 1.2m to allow cycle and pedestrian access on Blackfriars Bridge. Again, the size of these units is dictated by the lack of foundation available on the bridge deck, which would, if available, allow much smaller bollards to be used.*



*Plate 5 - Revised HVM barriers between cycle track and general traffic lanes on Southwark Bridge*



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## APPENDIX D – ARTICLE / DOCUMENTS REFERENCED IN THE CASE FOR THE SCHEME

## Endnote 19

### Offshore oil and gas in Great Yarmouth

Strategically located for the Southern North Sea, Great Yarmouth has been recognised as a centre of excellence in the offshore energy sector and the principle base for operations in the Southern North Sea oil and gas sector for more than half a century.

Great Yarmouth has had oil and gas at the cornerstone of its economy since their discovery in the North Sea in the early 1960s and has the most concentrated reservoir of expertise, experience and knowledge available anywhere that gas is extracted in the UK. So much so, that it is said that wherever in the world there is an offshore hydrocarbon-related development in hand, there will be an engineer or technician from Great Yarmouth somewhere not far away.

Shallow water engineering, mature asset management and normally unmanned installations (NUIs) are among the many areas of expertise that have been developed in Great Yarmouth as the town has adapted to an ever-changing industry.

One of Great Yarmouth's key assets is its ability to deliver reliable and efficient supply chain services, with road haulage, sea transport and logistics providers working together in a highly co-ordinated way. Among the key players in this sector in Great Yarmouth are ASCO, Peterson and MDF Transport.

Despite the current downturn, there is at least another 20 years' gas production left in the Southern North Sea and production is expected to continue until at least 2035.

There is an increasing focus on prolonging the life of assets in the North Sea, either bringing drilling rigs in for major refurbishments or upgrading platforms in situ – all of this offering a whole new range of commercial opportunities, even before decommissioning is considered.

**Aker Solutions** is a global provider of products, systems and services to the oil and gas industry. Its engineering, design and technology bring discoveries into production and maximize recovery.

**WorleyParsons** is one of the world's leading suppliers of consultancy, engineering and project management services to the world's oil and gas market and has had a base in Great Yarmouth for more than 35 years. Having initially moved to Great Yarmouth to capitalise on the developing gas fields, WorleyParsons has built up its expertise supporting Southern North Sea offshore industries.

**Expro** was established in Great Yarmouth in 1973 and helped the Hamilton Brothers produce the first UK oil from the Argyll Field on June 11, 1975. Since then their well flow management services have grown around the world providing services and products that measure, improve, control and process flow from high-value oil and gas wells, from exploration and appraisal through to mature field production optimisation and enhancement.

**EPIC International** has an established base in Great Yarmouth. Providing operations, management and maintenance support together with well service personnel, procurement and logistics services, EPIC has particular experience supporting Normally Unattended Installations (NUIs) for offshore operator companies. EPIC also provides a number of services to support the decommissioning of redundant infrastructure and more recently developed a Late in Life Operation (LILO) model for "mothballing" near end-of-life North Sea platforms.

Founded in 1919, **Halliburton** is one of the world's largest providers of products and services to the energy industry. The company serves the upstream oil and gas industry throughout the lifecycle of the reservoir from locating hydrocarbons and managing geological data, to drilling and formation evaluation, well construction and completion, and optimizing production through the life of the field. Having been in Great Yarmouth since the 1960s, Halliburton's Yare Facility supports over 100 staff members.

**Seatrax (UK) Limited** manufactures a range of offshore cranes designed for numerous applications, including semi-submersibles, drillships, FPSOs, TLPs, accommodation/lift barges, fixed platforms and quayside locations. At Great Yarmouth, it has fully equipped fabrication, assembly and fit-out workshops, including a yard test stand to undertake crane function/load testing activities and, importantly, direct access to the North Sea. Used by customers from across the world's offshore and marine industries, Seatrax's products are widely recognised for their high standards of operational safety, robustness of design, lifetime cost-effectiveness and ease of maintenance.

## Decommissioning

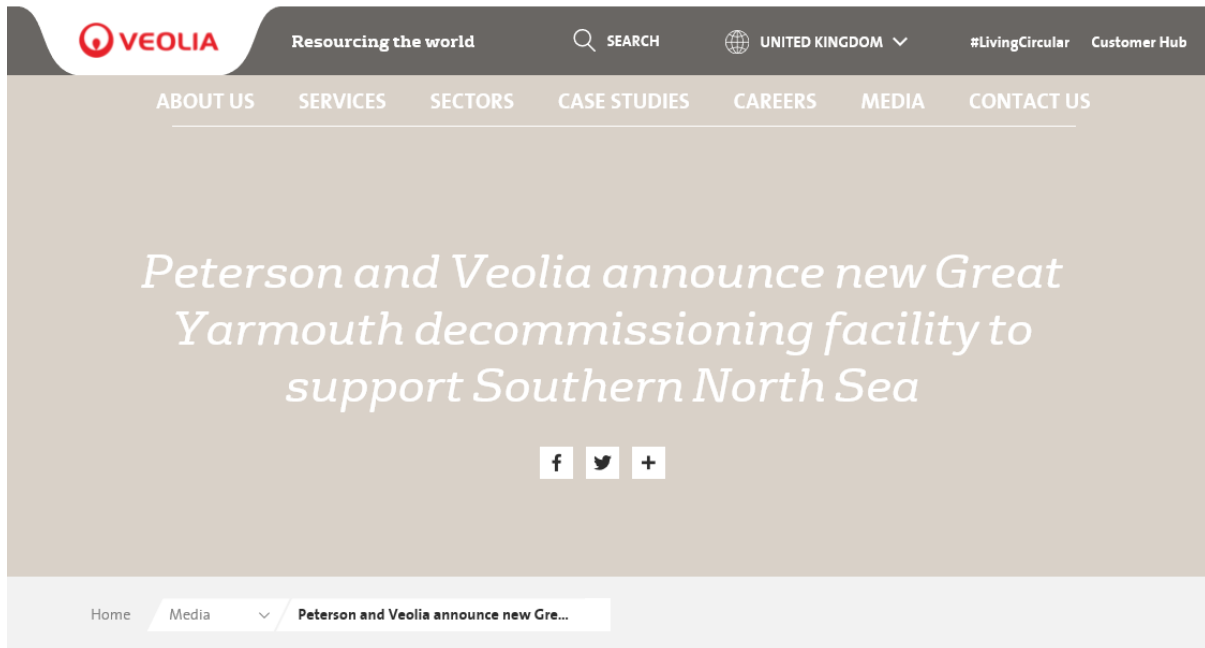
Where oil and gas platforms are installed, eventually they must be decommissioned, and with Great Yarmouth's long history within this sector and natural geographic positioning, the emerging decommissioning sector is now a prime consideration.

Energy logistics provider, Peterson, in partnership with environmental solutions provider, Veolia, has made a £1million investment in the development of a new decommissioning facility at the Outer Harbour.

With work by Great Yarmouth Borough Council and the East of England Energy Group's Special Interests Group for Decommissioning, there is a strong ambition to establish Great Yarmouth as the centre of excellence for decommissioning for the UK Southern North Sea and already many local companies are working in this field. [Download the Great Yarmouth Business Directory](#) for a comprehensive guide to the oil and gas supply chain.

[See energy businesses by type](#)

## Endnote 20



The screenshot shows the top portion of a Veolia website. The header includes the Veolia logo, the tagline 'Resourcing the world', a search bar, and navigation links for 'UNITED KINGDOM', '#LivingCircular', and 'Customer Hub'. A secondary navigation bar contains links for 'ABOUT US', 'SERVICES', 'SECTORS', 'CASE STUDIES', 'CAREERS', 'MEDIA', and 'CONTACT US'. The main content area features a large headline: 'Peterson and Veolia announce new Great Yarmouth decommissioning facility to support Southern North Sea'. Below the headline are social media icons for Facebook, Twitter, and a plus sign. At the bottom of the screenshot, a breadcrumb trail shows 'Home > Media > Peterson and Veolia announce new Gre...'. The page is dated '17 JUN. 2015'.

← Press releases listing

17 JUN. 2015

The new site in Great Yarmouth Port, operated with joint venture partner Veolia, and developed in cooperation with the Port, and with support funding from NewAnglia LEP, will provide operators in the Southern North Sea ("SNS") with access to a full service decommissioning facility and Veolia-Peterson's market leading expertise and experience.

The investment, announced today, (Wednesday June 17th) at EEEGR's (East of England's Energy Group) Westminster reception, will create a bespoke facility located in the western terminal of the recently developed Outer Harbour at Great Yarmouth port, enabling topside, jackets and subsea equipment to be off loaded for dismantling and recycling. Locating Veolia-Peterson's expertise in Great Yarmouth will provide operators with a facility within easy reach of the SNS thus minimising the risk and costs associated with transporting infrastructure. Due to be operational in July 2015, Veolia-Peterson expects to create up to seven new jobs initially, with this expected to increase in line with project requirements and market demand. Peterson has been operating in Great Yarmouth since 1997 and employs 30 people at its existing facility providing quayside and logistics services.

James Johnson, Decommissioning Manager, Peterson said, "As recently highlighted by industry body Decom North Sea, costs for decommissioning North Sea offshore assets over the next decade are forecast to be around £14.6billion. We have a real opportunity, working in collaboration with our partners, to establish Great Yar-

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mouth as the centre for decommissioning for the SNS, delivering comprehensive, safe and cost effective decommissioning solutions.”

Ian Williams, Industrial Services Director at Veolia said “This new decommissioning facility allows us to provide the oil and gas industry an even larger portfolio of facilities across the whole North Sea. Through our established track record and unrivalled experience in compliance and reuse we can help customers exceed their environmental targets.”

Peterson was awarded £70,000 from New Anglia LEP’s flagship Growing Business Fund, to help establish the new facility. The centre, based at the Outer Harbour, is located on one of six sites on the Great Yarmouth and Lowestoft Enterprise Zone.

Chris Starkie, managing director of New Anglia LEP said, “We are extremely pleased to have played a part in securing this new project for our vitally important energy coast. Our funding, together with future private investment from Peterson, will launch Great Yarmouth and surrounding areas as a major new hub for decommissioning activity in the Southern and Central North Sea, a significant emerging sector estimated to be worth £125m in the next ten years.”

Eliza O’Toole, Deputy Chair of Great Yarmouth Port commented, “We are delighted that Peterson chose to locate their new facility in the Outer Harbour and to both build on, and to take advantage of, the deeply established expertise both in the Port and its hinterland in servicing the SNS. The Port congratulates Peterson on their initiative and investment and welcomes this latest addition to the Port’s ongoing central role in supporting the SNS for decades to come.”

Colleen Walker, Chair of Norfolk County Council’s Economic Development sub-committee said, “This is a significant deal for both Eastport and for Great Yarmouth, and I am delighted the County Council has been able to provide key guidance in order to help this deal come to fruition. Decommissioning work will now take place at Eastport for many years to come – boosting employment opportunities locally, and reinforcing the East of England Energy Zone as the premier location for the energy sector.”

Cllr Graham Plant, the leader of Great Yarmouth Borough Council, said: “The fact that Peterson and other businesses continue to invest and expand within the borough – already a global capital for the energy sector – shows confidence in the borough, its expertise, supply chain and port facilities.

“The borough council was a key partner in the development of the Outer Harbour and in facilitating Veolia-Peterson’s decision to base its decommissioning operation there. As we celebrate 50 years of offshore operations from Great Yarmouth, I am delighted our partnership work is helping to create jobs, especially in this new, growing area of decommissioning.”

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## Endnote 21

06/12/2018

Europe's largest contract for offshore wind turbines - ScottishPower

### Press Room

#### EUROPE'S LARGEST CONTRACT FOR OFFSHORE WIND TURBINES ANNOUNCED BY SCOTTISHPOWER RENEWABLES AND SIEMENS AS FINAL HURDLE CLEARED FOR EAST ANGLIA ONE

27/04/2016

- **The agreement is believed to be Europe's largest wind turbine contract for a single project**
- **Low Carbon Contracts Company confirms "significant contractual milestone" achieved**
- **75m-long blades to be manufactured in Hull**

At the Iberdrola Q1 financial results presentation in Madrid today (Wednesday 27th April), Chairman Ignacio Galán confirmed that ScottishPower Renewables has concluded a major deal with Siemens, which will see 102 wind turbines supplied for the East Anglia ONE offshore windfarm. The contract, including a 5-year service agreement, will be worth up to one-third of the overall £2.5 billion project investment.

The agreement comes on the same day that the Low Carbon Contracts Company confirmed that Contract for Difference (CfD) milestones have been fulfilled, ensuring that East Anglia ONE will be the best value offshore windfarm to go in to construction anywhere in the world.

East Anglia ONE will utilise 102 turbines, each with a capacity of 7 megawatts (MW), which in total will power more than 500,000 homes every year\*. With the CfD milestones achieved and confirmed by the Low Carbon Contracts Company, the project will be delivered at a price of £119/MWh, a cost reduction of 20% compared to other offshore wind farms that have been built in the UK.

The 75 metre long turbine blades are planned to be fabricated in Siemens' new factory in Hull, and £5 million is set to be invested in Great Yarmouth Harbour, which will act as the pre-assembly port for the installation of the turbines.

The turbine agreement is the largest individual contract placed as part of the £2.5 billion project, and will help to support many of the 3,000 jobs that the project aims to create during construction.

**Ignacio Galán, Iberdrola and ScottishPower Chairman**, said: "Offshore wind power is a vital component in global efforts to help to deliver the binding agreement achieved by more than 170 countries at the COP21 meeting in Paris and signed last week in New York. As a worldwide leader in renewable energy, we have always focused on clean technologies that are competitive enough to deliver real energy solutions. Offshore wind works. We have seen this in our highly efficient West of Duddon Sands project, and cost reductions are already benefiting the delivery of our Wiking project being constructed in

06/12/2018

Europe's largest contract for offshore wind turbines - ScottishPower

solutions. Offshore wind works. We have seen this in our highly efficient West of Duddon Sands project, and cost reductions are already benefiting the delivery of our Wikingen project being constructed in Germany. East Anglia ONE will raise the bar further, as technology matures and expertise in the supply chain increases. We see huge potential globally for offshore wind, and we will continue to lead the industry in driving down costs."

**Keith Anderson, CEO of ScottishPower Renewables**, said: "We have concluded Europe's largest project-specific wind turbine agreement just a month after taking our final investment decision, and we have scaled the final hurdle by satisfying our CfD conditions with the Low Carbon Contracts Company. It is now full steam ahead for East Anglia ONE, with ground set to be broken early next year.

"East Anglia ONE is the first of up to four projects we would like to build in the Southern North Sea, and we hope that our plans will stimulate jobs and investment for the UK and across the region for decades to come.

**Low Carbon Contracts Company CEO Neil McDermott**, said: "The milestone requirement is a key obligation under the CFD and we look forward to working with East Anglia ONE to deliver this landmark project."

**Michael Hannibal, CEO Offshore of the Siemens Wind Power and Renewables Division**, stated: "Siemens is delighted to work with ScottishPower Renewables on East Anglia ONE offshore wind power plant. This also represents the largest single order ever for our direct-drive, 7-megawatt wind turbine. The decision to go with our innovative wind turbines underscores the contribution made by these units to reducing the costs of offshore wind power."

ScottishPower Renewables is delivering a large cut in the cost of offshore wind power through East Anglia ONE, with a cost of electricity set at £119/MWh after a successful bid in the competitive UK Government auction. This cost reduction has been made possible by ScottishPower Renewables' use of advanced technology, such as these larger and more efficient turbines.

ScottishPower Renewables and Siemens worked successfully on their first joint offshore project, the 389 MW West of Duddon Sands Offshore Windfarm in the Irish Sea. Construction work on ScottishPower Renewables' second offshore windfarm, the Wikingen project in the German Baltic, is currently underway, using 5MW ADWEN turbines.

*\* Calculated taking the number of megawatts (714) multiplied by the number of hours in one year (8,766), multiplied by the average load factor for offshore wind for 2014 (most up to date figure available) (34.88 %, published by the Digest of United Kingdom Energy Statistics), divided by the average annual household energy consumption*

#### Notes to Editors:

The Siemens SWT-7.0-154 turbine:

- Nominal power: **7 megawatts (MW)**
- Rotor diameter: **154 metres**
- Blade length: **75 metres**
- Swept area: **18,600 metres**
- Tip height: **up to 190 metres**

[https://www.scottishpower.com/news/pages/europes\\_largest\\_contract\\_for\\_offshore\\_wind\\_turbines\\_announced\\_by\\_scottishpower\\_renewables\\_a...](https://www.scottishpower.com/news/pages/europes_largest_contract_for_offshore_wind_turbines_announced_by_scottishpower_renewables_a...) 2/3

06/12/2018

Europe's largest contract for offshore wind turbines - ScottishPower

**About East Anglia ONE:**

East Anglia ONE will see 102 wind turbines installed in the southern North Sea, approx. 30 miles off the coast. The overall investment will be in the region of £2.5 billion, and the project is planned to meet the annual electricity demands of the equivalent of 500,000 homes.

Construction is planned to commence in 2017, with the first turbines installed by 2019, and hopes that the project will be fully operational during 2020.


East Anglia ONE Offshore Windfarm project is likely to include:


- Offshore wind turbines and foundations (102 wind turbines to provide an installed capacity of 714 megawatts).
- An offshore substation to collect the electricity from the turbines and transform it to a form suitable for transfer to shore.
- Two offshore export cables, each around 85 km in length, to transfer the electricity to shore.
- A landfall site with onshore transition pits to connect the offshore and onshore cables.
- Six onshore underground cables, each of around 37 km in length, to transfer the electricity from landfall to an onshore converter station.
- An onshore substation adjacent to the existing substation at Bramford, Suffolk, to connect the offshore windfarm to the National Grid.

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## Endnote 22

06/12/2018

Norfolk Vanguard Offshore Wind Farm Home Page - Vattenfall - Vattenfall



# Norfolk Vanguard

## About the project



### **What are we proposing?**

We are exploring the potential to develop one of the UK's largest offshore wind farms which will be located in the North Sea, off the coast of Norfolk. Find out more [here](#).

### **The planning process**

06/12/2015

Norfolk Boreas Offshore Wind Farm - Home Page - Vattenfall - Vattenfall

# Norfolk Boreas

## About the project



### What are we proposing?

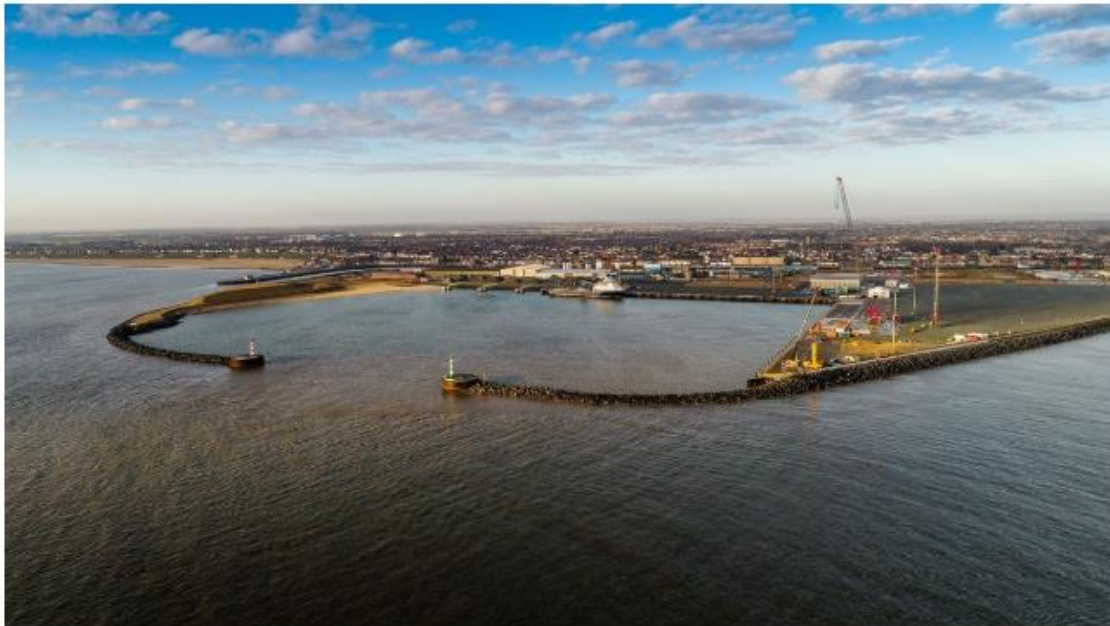
We are exploring the potential to develop one of the UK's largest offshore wind farms which will be located in the North Sea, off the coast of Norfolk. Find out more [here](#).

### The planning process



## Endnote 23

OCTOBER 4, 2018



Vattenfall, the Swedish energy group, and Peel Ports, the infrastructure specialists, have agreed to reserve space at a Great Yarmouth harbour to site an operations base for two major offshore wind farms.

Economic leaders described the move as a big confidence booster to Norfolk's offshore wind supply chain, and hoped that Vattenfall's investment, due in the early 20's, will be a magnet to other inward investors.

The operations base will serve Vattenfall's Norfolk Vanguard and Norfolk Boreas projects. The low carbon energy developer has signed an agreement with Peel Ports that enables them to build a new operations base at Peel Ports Great Yarmouth, if its applications for the wind farms are given the go-ahead by the Energy Secretary next year and in 2020. The base will be operational for at least 25-years.

The total combined installed capacity of both proposals is 3.6GW, capable of meeting the electricity needs of 10% of UK households every year.

Ruari Lean, Vattenfall's Project Manager for Norfolk Vanguard said: "It's great to seal this deal with Peel Ports to reserve space for Norfolk Vanguard and Norfolk Boreas offshore wind farms. Good for us of course, because we will have the ideal home for up to 150 skilled wind technicians looking after two wind farms which will be amongst the largest ever built. And good for Norfolk too, if built, as this major investment will send a strong signal to other businesses to consider investing in the County."

Richard Goffin, Port Director Peel Ports Great Yarmouth, said: "Vattenfall's commitment to reserve space for their operations base at Great Yarmouth is testament to the Port's influential position in the wider offshore energy arena, which is complemented by a supportive County and Borough Council. This agreement enhances Great Yarmouth's position as the East of England's most successful offshore energy hub and will attract further investment in the existing world-class supply chain, bringing a host of employment and economic growth opportunities to the region."

Chris Starkie, Chief Executive of New Anglia LEP, said: "This will be a great boost for our existing clean energy sector which is already leading the way in the UK. It will also help deliver the ambitions for clean growth as set out in the country's Industrial Strategy. One of our key aims is to create jobs with a focus on skilled opportunities in this fast-growing sector so we welcome seeing these being delivered here. The investment will also contribute in supercharging Great Yarmouth's potential as a priority place for business growth."

Cllr Andrew Proctor, Leader of Norfolk County Council, said: "This is fantastic news for Great Yarmouth and Norfolk. It really demonstrates Vattenfall's dedication to the town and goes to show just how important the area is to the renewable energy sector. This level of commitment will only help to attract even more investment to the east coast and provide huge economic benefits to existing local companies."

Cllr Graham Plant and Cllr Trevor Wainwright, political group leaders at Great Yarmouth Borough Council, said: "These will be among the largest offshore wind farms ever built, representing multi-billion-pound investments, and Great Yarmouth will really benefit, with the base creating up to 150 skilled jobs for at least 25 years, plus supporting our extensive, skilled supply chain. We've been working closely with Peel Ports Great Yarmouth, with excellent support from the county council, New Anglia LEP and others, to maximise the exciting opportunities for Great Yarmouth across the energy sector, and Vattenfall's commitment reflects huge confidence in Great Yarmouth's strengths as the main service base for the Southern North Sea and a burgeoning offshore wind hub."

This summer, Vattenfall submitted final proposals to the Planning Inspectorate for its Norfolk Vanguard project. Its sister project Norfolk Boreas, will start its statutory consultation later this autumn.

## Endnote 24

18 October 2018

### The Crown Estate launches a second phase of engagement on new offshore wind leasing following positive market response

The Crown Estate is launching a second phase of engagement with the market and stakeholders on new offshore wind leasing, following a positive market response to its initial proposals.

The first round of engagement, which took place in July 2018, was attended by more than 100 industry representatives and 25 statutory stakeholders.

Market feedback confirmed:

- Appetite for at least 6GW of new seabed rights.
- Support for The Crown Estate's proposed leasing model, whereby developers identify their preferred sites within broad regions of seabed.
- Support for The Crown Estate's intent to share detailed seabed data for available regions (including GIS analysis, constraints assessment and stakeholder feedback) to help inform developers' selection of sites and reduce consenting risks.

Market participants also provided detailed and constructive feedback on a range of other subjects, including on the proposed leasing model, scale and frequency of potential new leasing, spatial considerations, size and type of projects and timeline to tender.

Having reviewed this feedback, along with contributions from statutory stakeholders, The Crown Estate will now present its updated proposals to the market, statutory stakeholders, and for the first time, a broader group of non-statutory stakeholders, to seek their views.

The updated plans will include further details on the regions where The Crown Estate proposes to offer new seabed rights, which have been reviewed and refined with statutory stakeholders over the course of the summer, as well as further details on the proposed tender design.

The market session, targeted at potential leasing process participants, will take place on 26<sup>th</sup> November. Details of how to register for this event will be available on The Crown Estate's website later this month. Engagement with statutory stakeholders and non-statutory bodies will continue in parallel.

Following this second phase of engagement, The Crown Estate intends to confirm plans for a new offshore wind leasing round, to be known as Round 4. This could be launched in the early part of 2019, maintaining a pipeline of projects through to the late 2020s and beyond.

**Jonny Boston, Senior Development Manager at The Crown Estate, said:** *"We've seen a really encouraging response to our proposals for new leasing, demonstrating continued confidence in the UK as a brilliant place to invest in offshore wind. As we progress our proposed tender design, we'll continue to work closely with the market and stakeholders to ensure that new rights provide an attractive and competitive offer, whilst ensuring we balance a range of interests on the seabed, helping deliver the UK's transition to a low-carbon energy mix."*

For more information and to register to be kept informed about The Crown Estate's work, please visit the offshore wind potential new leasing page of The Crown Estate website: [thecrownestate.co.uk/potentialnewleasing](http://thecrownestate.co.uk/potentialnewleasing).



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## Endnote 34



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# Further work to resolve Haven Bridge issues with overnight road closure planned for Thursday

**03 July 2018**

Last night (Monday 2 July) Haven bridge was successfully lifted at 8pm by Peel Port engineers, allowing TS Nelson (along with another small river craft) to pass through. Traffic diversion measures were put in place, along with a taxi shuttle service for pedestrians.

Engineers then lowered the bridge for inspection, and removed bridge control equipment on the nose of the deck so that it could be repaired.

The bridge was manually lowered to its final closed position and reopened to traffic by 2.30am.

On Thursday 5 July, Peel Ports engineers intend to lift Haven Bridge again to reinstall the repaired bridge control equipment. Once fitted, further test lifts will be performed to ensure the bridge is working properly.

A road closure will be in place from 7pm during which there will be a signed diversion route and a shuttle bus service for pedestrians. All efforts will be made to lift and close the bridge successfully in time for the morning rush hour. However, in a worst case scenario we understand it could take up to 48 hours to manually close the bridge and reopen the road.

We will make absolutely every effort to avoid this but if required the road closure and diversion arrangements would be extended.

We know how important this crossing is for traffic in the town and how costly and frustrating delays can be. This is a key reason we have been working so hard to push the Third River Crossing project forward which will help to ease traffic congestion and support the local economy. Alongside the efforts to fix the current problems with Haven bridge we are looking at future improvements for the crossing, which is now over 90 years old, and have already commissioned reports to look at the best long-term solutions and possible funding sources.

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## Heathrow Unveils Shortlist Of 65 Potential Logistic Hub Sites



Heathrow has unveiled a shortlist of 65 potential Logistic Hub sites across the UK to help deliver its new multi-billion pound expansion plan.

The off-site centres for construction and manufacturing will help ensure that businesses across the UK can form part of the airport's supply chain for its major infrastructure project.

The potential sites have been selected from an initial 121 applications. Once finalised, four final locations will pre-assemble components of the expanded airport before transporting them in consolidated loads to Heathrow.

Later today, 08 November, Heathrow will also announce 10 new locations that will host Business Summits next year, providing SMEs the opportunity to connect and trade face-to-face with Heathrow's supply chain.

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Speaking ahead of the Supplier Awards this evening, Heathrow Chairman Lord Deighton said: "As the UK leaves the EU, Heathrow is an essential infrastructure project that will ensure Britain remains an open trading nation.

"As part of that, Heathrow's third runway will rely on talent from all over Britain helping to create a national asset for generations to come. This means new procurement opportunities for businesses in every region, helping drive growth and investment into local communities in all corners of this country. Our aim, to harness the skills we need through long-term projects such as the Logistics Hubs and Business Summits, will drive jobs and investment leaving a legacy of increased productivity for the construction sector.

"The third runway is not a London centric project – it is one we are opening up to the whole of the UK, asking for its skills and expertise to help build an asset this country so desperately needs to safeguard its future prosperity."

Civil Engineering Contractors Association chief executive Alasdair Reisner added: "We are keen that the whole of the UK benefits from the expansion of Heathrow. We see huge potential for the logistics hubs to stimulate the growth of new industrial heartlands across the country, manufacturing and assembling the high-quality components used by contractors to build world class new facilities for Heathrow."

The full long-list is as follows;

#### **East Midlands**

Corby Land and Development Ltd, Midlands Logistics Park

Laing O'Rourke, Explore Industrial Park

Prologis UK Ltd, Daventry International Rail Freight Terminal

SEGRO Plc, SEGRO Logistics Park

Tarmac Trading Ltd, Tarmac Hindlow Quarry

#### **East of England**

Opportunity Peterborough, Roxhill Scheme At Gateway

Peel Ports Investments Ltd, Port of Great Yarmouth

#### **London**

London Borough of Havering, Beam Reach 6

Wincanton, Wincanton Greenford



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**North East**

Tarmac Trading Ltd, Tarmac Thrislington Works

Tees Valley Combined Authority, South Tees Development Corporation

**North West**

Cammell Laird Shiprepairers and Shipbuilders Ltd, Cammell Laird, Campbeltown Road

Cammell Laird Shiprepairers and Shipbuilders Ltd, MEA Park Wirral Waters, Beaufort Road

MIDAS, Airport City

MIDAS, Kingsway Rochdale

MIDAS, Logistics North Bolton

MIDAS, Port Salford

Peel Ports Investments Ltd, Port of Liverpool

Sellafield Ltd, Lillyhall Industrial Estate

**Northern Ireland**

Lisburn and Castlereagh City Council, North Foreshore

Lisburn and Castlereagh City Council, Silverwood Business Park

Mid and East Antrim Borough Council, Belfast International Airport

Mid and East Antrim Borough Council, Global Point Business Park

Mid and East Antrim Borough Council, Michelin Tyre

MJM Marine Ltd, Shackleton Barracks

**Scotland**

Babcock Marine Rosyth Limited, Rosyth Business Park

Forth Ports Limited, Forth Ports Rosyth

Glasgow Prestwick Airport

Renfrewshire Council, Eurocentral / Mossend

Renfrewshire Council, Glasgow Airport Investment Area (GAIA)/Westway site

Renfrewshire Council, Queenslie Industrial Estate

Scottish Enterprise, Hunterston

Scottish Enterprise, Longannet

Scottish Enterprise, Mossend

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Scottish Enterprise, Westfield

**South East**

Amalga Limited, Ridgeway Distribution Centre

Peel Ports Investments Ltd, London Medway

**South West**

Invest Bristol Bath/The West of England Combined Authority, Avonmouth

Invest Bristol Bath/The West of England Combined Authority, Severnside

Sedgemoor District Council, Royal Ordnance Factory

Tarmac Trading Ltd, Tarmac Westbury Works

**Wales**

Welsh Government, ABP Port Site, Cardiff

Welsh Government, ABP Port Site, Newport

Welsh Government, The Airfields - Northern Gateway, Deeside

Welsh Government, Brocastle, Bridgend

Welsh Government, Rhyd Y Blew, Ebbw Vale

Welsh Government, Llanwern Newport

Welsh Government, TATA Shotton Deeside

**West Midlands**

Amalga Limited, Palletforce SuperHub

Balfour Beatty, Birch Coppice Industrial Estate

Stoke-on-Trent City Council, Chatterley Valley West

Stoke-on-Trent City Council, Highgate Ravensdale

Telford & Wrekin Council, Land at Hortonwood

Telford & Wrekin Council, Property at Railfreight Terminal

**Yorkshire and the Humber**

Bishopdyke Enterprises Limited, JCT 42 A1(M) - Sherburn in Elmet

British Steel, British Steel - Brigg Road

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Doncaster Sheffield Airport Ltd, Aero Centre Yorkshire

Leeds Bradford Airport Ltd, Leeds Bradford Airport / Logic Leeds

Severfield UK Ltd, Dalton Airfield Industrial Estate

Sheffield City Region, 31 East

Sheffield City Region, Ashroyd Business Park

Sheffield City Region, Enterprise 36

Sheffield City Region, Former Maltby Colliery

Sheffield City Region, iPort

Sheffield City Region, J5M16Unity

(LM/MH)

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## APPENDIX E – CORRESPONDENCE WITH GREAT YARMOUTH BOROUGH COUNCIL

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**From:** Neil Shaw [mailto: [REDACTED]]  
**Sent:** 14 March 2019 17:11  
**To:** Linley, Jane < [REDACTED] >  
**Cc:** John Clements < [REDACTED] >  
**Subject:** Third River Crossing

Dear Jane,

I write to confirm the information provided in discussions with various Borough Council Officers regarding this site (see previously sent map).

It is currently unused, overgrown, and surplus to GYBC's requirements. Most of the site is impenetrable. (Part only can currently be accessed due to recent action with heavy machinery to clear a drainage ditch situated in its western side.)

The Council has no proposals for the site, except for its anticipated use for part of the access to the proposed Third River Crossing.

#### Ownership

The land in question is owned by Great Yarmouth Borough Council (GYBC).

GYBC has not actively marketed the site, but would be open to a suitable offer to purchase it (if the Third River Crossing were not to proceed) for a specific purpose, due to a combination of the following:

- the land has limited financial value, due to its size, location and marshy character;
- the Borough Council would wish to be assured about any future use of the site, in order to avoid traffic and amenity problems arising; and
- the Borough Council has understood for around 10 years that this land would likely be needed to facilitate the Third River Crossing, the delivery of which is a corporate priority for GYBC.

#### Planning

The site currently has a nil use in planning terms. It does, however, fall to be considered as open space because it is undeveloped, and has a limited degree of visual amenity by virtue of the trees and shrubs on the site. It has no recreational or sports value, current or planned, because there is no public access and is overgrown, and also there is substantial sports & recreation provision very close by. GYBC, as local planning authority, has assessed the site in the light of the development plan policies and other material planning considerations, and is of the view that

- (a) the land is surplus to requirements;
- (b) it is of no existing or planned recreational or sport value;
- (c) it makes a limited contribution to visual amenity in the immediate vicinity of the site.

In the view of GYBC, the loss of the modest contribution to local visual amenity provided by this 'open space' would be significantly outweighed by the advantage to the area of the provision of the Third River Crossing.

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It has considered the desirability of a replacement of this 'open space' elsewhere, as would normally be expected for the loss of open land. In light of its lack of any recreational or sport value, and its limited contribution to visual amenity, this would be taking an overly rigid interpretation of the relevant policies leading to a somewhat absurd provision of a piece of scrubland elsewhere.

There is an extensive Council owned open recreational space, 'Southtown Common', immediately across the road from the site (to the South). Southtown Common already provides significant recreational and sport facilities, and makes a contribution to local visual amenity value. In line with the Council's current leisure strategy, any additional sports provision or investment for the locality is expected to be provided here.

Therefore, from both a planning and ownership perspective, the Council has no concerns regarding the loss of this small piece of open land to enable provision of the Third River Crossing.

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**Neil Shaw**

Strategic Director

Department

Great Yarmouth Borough Council

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