Great Yarmouth Third River Crossing

Application for Development Consent Order

Document 6.2: Environmental Statement Volume II: Technical Appendix 13A: Legislation, Policy and Guidance

Planning Act 2008

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (as amended) ("APFP")

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1 Legislation, Policy and Guidance

1.1.1 Table 1.1 to 1.3 summarises the applicable legislation, policy and guidance to Chapter 13: Climate Change.

Table 1.1: Summary of Legislation

Legislation	Summary	Chapter Reference
United Nations Framework Convention on Climate Change (UNFCCC)	The UK is a member of the UNFCCC which drives international action on climate change. The UK has pledged to reduce GHG emissions under the Paris Agreement, as a part of a joint pledge by members of the EU. This provides an overarching commitment by the UK.	Not directly applicable to this chapter. Legislation included to provide an overview of UK commitment to climate change.
Directive 2014/52/EU on the assessment of the effects of certain public and private projects on the environment (the EIA Directive)	The Directive requires EIA to identify, describe and assess the direct and indirect significant effects of a project on climate (Article 3). It also stipulates that the information to be included within the ES should include *"the impact of the project on climate (for example the nature and magnitude of greenhouse gas emissions) and the vulnerability of the project to climate change"*.	Chapter 13 (document reference 6.1) and the associated appendices 13 A, 13B and 13C (document reference 6.2) fulfils the climate assessment requirements of the EIA Directive. The nature and magnitude of greenhouse gas emission are presented in Section 13.5 of Chapter 13 (document reference 6.1). The vulnerability of the project is assessed, as presented in Section 13.6 of Chapter 13 (document reference 6.1) and accompanying appendices (Appendix 13B and Appendix 13C

Legislation	Summary	Chapter Reference
		(document reference 6.2)).
UK Climate Change Act 2008	The Climate Change Act established a legal requirement for an 80% reduction in the GHG emissions of the UK economy by 2050 in comparison to the 1990 baseline. The Climate Change Act also created the Committee on Climate Change, with responsibility for setting 5-year Carbon Budgets covering successive periods of emissions reduction to 2050. The Act includes a requirement for Government to report, at least every five years, on the risks to the UK of climate change, and to publish a programme setting out how these will be addressed. The Act also introduced powers for Government to require public bodies and statutory undertakers to carry out their own risk assessment and make plans to address those risks.	This chapter uses the carbon budgets to compare the schemes estimated GHG emissions in line with IEMA guidance and professional judgement. See Table 13.12 of Chapter 13 (document reference 6.1). Whilst not directly applicable to the climate resilience assessment, the identification of mitigation measures undertaken as part of EIA for infrastructure projects such as this Scheme will contribute to the UK's overall level of preparedness for climate change which is one of the key objectives of the Act.

Table 1.2: Summary of Policy

Policy	Summary	Chapter Reference
National Policy Statement for National Networks (2014)	The NPS NN sets out Government policy on national networks and identifies that the transport sector will play an important part in meeting the Government's carbon targets through technological innovation (paragraph 3.14) and sustainable modes of transport (paragraph 3.15 and 3.16). In relation to climate change adaptation, the policy states that *"New national networks infrastructure… will need to remain operational over many decades. Consequently, applicants must consider the impacts of climate change"* (paragraph 4.40), through the application of *"…the UK climate projections"* using the *"…high emissions scenarios…against the 2080 projections at the 50% probability level"* (paragraph 4.41). The policy states that it should be demonstrated *"…that there are no critical features of the design of new national networks infrastructure which may be seriously*	The chapter has considered the impacts of carbon (GHG emissions) from the Scheme (see Section 13.5 of Chapter 13 (document reference 6.1)). Section 13.6 (and the accompanying appendices (Appendix 13B and 13C (document reference 6.2)) reviews the impacts of climate change and assesses climate resilience of the Scheme. The climate resilience assessment uses the UK Climate Projections 2018 (UKCP18) (Appendix 13B (document reference 6.2)) as part of the vulnerability assessment. UKCP18 data is the most up-to-date projections and represents the best current understanding of how climate in the UK will change over the 21st century. The vulnerability assessment uses the high emissions scenarios (termed RCP8.5 in UKCP18) for the 2080s using the 50% percentile projections. The vulnerability assessment includes extreme climate change

Policy	Summary	Chapter Reference
	affected by more radical changes to the climate, beyond that projected in…UK climate projections. Any potential critical features should be assessed taking account of the latest credible scientific evidence…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" (paragraph 4.43). Chapter 5: Generic Impacts (Carbon emissions paragraph 5.16 to 5.19) sets out Government policy on climate change and outlines the importance of reducing carbon emissions, stating that the Government has a legally binding commitment to reduce greenhouse gas emissions by *"at least 80% by 2050"* and to conform to Carbon Budgets outlined in the *"Carbon Plan 2011"*. The policy states that *"Carbon impacts will be considered as part of the appraisal of scheme options (in the business case), prior to the submission of an*	scenarios (Appendix 13B (document reference 6.2)). The findings of the climate resilience assessment (Table 13.24 in Chapter 13 (document reference 6.1)) provides a resilience rating of the Scheme components to climate change and also present a significance assessment. The GHG emissions chapter, (section 13.5 in Chapter 13 (document reference 6.1)) considers the carbon impacts of the Scheme. Table 13.8, Table 13.9 and Table 13.12 in Chapter 13 (document reference 6.1) compares the calculated GHG emissions from the Scheme with the UK Government Carbon Budgets.

Policy	Summary	Chapter Reference
	application for DCO" (paragraph 5.17) and that *"any Environmental Statement will need to describe an assessment of any likely significant climate factors in accordance with the requirements in the EIA Directive"* (paragraph 5.17). However, it goes on to say that *"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, road projects applicants should provide evidence of the carbon impact of the project and an assessment against the Government's Carbon Budgets"* (paragraph 5.17). The policy also states that *"an increase in carbon emissions is not a reason to refuse development consent, unless the increase in carbon emissions resulting from the proposed Project are so significant that it would have a material impact on the ability of Government to meet its carbon reduction targets"*. The Policy states that the Government's Carbon	

Policy	Summary	Chapter Reference
	Plan 2011 *"…includes a range of non-planning policies which will…ensure that any carbon increases from road development do not compromise its overall carbon reduction commitments". "Therefore, any increase in carbon emissions is not a reason to refuse development consent, unless the increase…is so significant it would have a material impact on the ability of the Government to meet its carbon reduction targets"* (paragraph 5.18). Evidence of mitigation measures should be presented for the Secretary of State to consider the effectiveness of such mitigation to ensure that the carbon footprint is not unnecessarily high. In relation to climate resilience, Chapter 5 sets out key considerations for infrastructure projects that are proposed on or near the coast. Developments in these areas are required to *"undertake an assessment of the vulnerability of the proposed development to coastal change, taking account of climate*	Embedded mitigation measures are presented in Chapter 13 (document reference 6.1), paragraphs 13.5.25 and Table 13.23. The vulnerability assessment (presented in Appendix 13B (document reference 6.2)) includes variables associated with coastal locations (sea level change, storm surge) and other climate change variables consistent with the Scheme and its operational life. Variables assessed as medium or high vulnerability are taken forward for further risk assessment (Appendix 13B (document reference 6.2)). The final steps of the climate resilience assessment takes account of embedded mitigation measures (Table 13.23) to determine the resilience rating of the Scheme components. Climate change in relation to flood risk is considered further in the Chapter 12: Flood Risk (document reference 6.1).

	change, during the project's operational life" (paragraph 5.71). With regards to the decision-making process, the policy states that *"the applicant must demonstrate that a full account has been taken of the policy on assessment and mitigation…taking account of the potential effects of climate change on these risks"* (paragraph 5.78). Chapter 5 also acknowledges the fact that climate change will likely lead to an *"increased flood risk in areas susceptible to flooding, and to an increased risk of flooding in some areas which are not currently thought of as being at risk"*. It also states that an applicant's assessment should *"identify and assess the risks of all forms of flooding to and from the Scheme and demonstrate how these flood risks will be managed, taking climate change into account"* (paragraph 5.93) by taking *"the impacts of climate change into account, clearly stating the development lifetime over which the assessment has been made"* (paragraph 5.94)	

Policy	Summary	Chapter Reference
	when preparing the Flood Risk Assessment.	
National Policy Statement for Ports (2012)	The NPS for Ports, in relation to greenhouse gases, states that *"new port infrastructure should…minimise the emissions of greenhouse gases from port related development"* (paragraph 3.3.3). It is recognised that *"Port developments may have an effect on greenhouse gases, particularly through their impact on sea and road transport"* and that impact may be positive if there is a shift from road to shipping or rail transport (paragraph 4.12.1). The policy states that *"Given the international nature of shopping and the difficulties in estimating and attributing GHGs…measures to address emissions from ships on international journeys are…not included in the national targets recommended by the Committee on Climate Change"* (paragraph 4.12.2). Paragraph 4.12.5 discusses inland transport and states that *"where the development will lead to significant increases in inland transport needs, the estimated impact on*	The chapter has considered the impacts of carbon (GHG emissions) from the Scheme in relation to inland transport needs (see Section 13.5 of Chapter 13 (document reference 6.1)). Section 13.6 of Chapter 13 (document reference 6.1) (and the accompanying appendices (Appendix 13B and 13C (document reference 6.2)) assesses climate resilience of the Scheme. The GHG assessment (Section 13.5 in Chapter 13 (document reference 6.1)) includes an assessment from end - user traffic emissions (regional traffic flows). The vulnerability assessment (presented in Appendix 13B (document reference 6.2)) includes variables associated with coastal locations (sea level change, storm surge) and other climate change variables consistent with the Scheme and its operational life. The vulnerability assessment

Policy	Summary	Chapter Reference
	CO_2, and other greenhouse gases if significant, will need to be covered in the Environmental Statement". In reference to climate adaptation, the policy states that *"… applicants must consider the impacts of climate change when planning the location, design, build and operation of new port infrastructure"* (paragraph 4.13.6). The policy also states that "… *the decision-maker should satisfy itself that there are not critical features of the design…which may be seriously affected by more radical changes to the climate beyond that projected in the…UK Climate Projections"* (paragraph 4.13.11).	includes extreme climate change scenarios (Appendix 13B (document reference 6.2)). The findings of the climate resilience assessment (Table 13.24 in Chapter 13 (document reference 6.1)) provides a resilience rating of the Scheme components to climate change and also present a significance assessment.
National Planning Policy Framework (2019)	Paragraph 8 of the NPPF includes in the definition of the environmental objective *"mitigating and adapting to climate change, including moving to a low carbon economy"*. Chapter 9: Promoting Sustainable Transport, encourages the pursuit of *"…opportunities to promote walking, cycling and public transport…and offer a choice of genuine*	Not directly applicable to the Chapter. Appendix 13A (document reference 6.2) provides a summary of applicable legislation in order to provide an overview of the UK commitment to climate change and requirements to consider climate change impacts on development and infrastructure.

Policy	Summary	Chapter Reference
	transportation modes" (paragraphs 102 and 103). Chapter 14: Meeting the Challenge of Climate Change, Flooding and Coastal Change, establishes that Local Planning Authorities *"should take a proactive approach to mitigating and adapting to climate change, taking into account the long-term implications for flood risk, coastal change, water supply, biodiversity and landscapes, and the risk of overheating from rising temperatures. Policies should support appropriate measures to ensure the future resilience of communities and infrastructure to climate change impacts, such as providing space for physical protection measures, or making provision for the possible future relocation of vulnerable development and infrastructure"* (paragraph 149).	Climate change in relation to flood risk is considered further in the Chapter 12: Flood Risk (document reference 6.1).
Infrastructure Carbon Review (2013)	In 2013, the UK government published the Infrastructure Carbon Review, aiming to *"… release the value of lower carbon solutions and to make carbon reduction part of the DNA of*	The chapter fulfils the need to assess GHG emissions early in the lifecycle of an infrastructure project. See Section 13.5 of Chapter 13 (document reference 6.1).

Policy	Summary	Chapter Reference
	infrastructure in the UK". Major infrastructure owners, operators and developers were invited to endorse, become signatories and make commitments under the review. The review provided increased emphasis on 'capital carbon' (GHG emissions associated with raw materials, activities and transport for construction, repairs, replacement, refurbishment and de-construction of infrastructure) while acknowledging that 'operational carbon' (associated with energy consumption for the operation and use of infrastructure) will continue to dominate overall emission to 2050 and beyond. The Infrastructure Carbon Review highlighted the need to assess GHG emissions early in the lifecycle of an infrastructure project when there is the greatest carbon reduction potential. It also led to the publication of a Publicly Available Specification on infrastructure carbon	

Policy	Summary	Chapter Reference
	management; PAS2080:2016.	
Great Yarmouth Borough Council Local Plan: Core Strategy 2013-2030	The Core Strategy contains a number of core policies which make reference to climate change: Policy CS1: Focusing on a Sustainable Future recognises that climate change is one of the greatest future challenges, but planning can support the transition of a low carbon economy and provide resilience to climate change impacts. It also states that policies in the Core Strategy will focus on ways to minimise greenhouse gas emissions, the risk of flooding and encourage the use of renewable energy. Policy CS12: Utilising Natural Resources identifies an aim, where feasible, to reduce carbon dioxide emissions (over the requirements set by Building Regulations) by 10% through enhanced energy efficiency measures or the installation of renewable or low carbon sources in all major development. Policy CS14: Securing essential new	The assessment within the climate chapter (chapter 13 (document reference 6.1)), demonstrates the resilience of the Scheme to climate change impacts through embedded mitigation (Table 13.23) and minimising GHG emissions through embedded mitigation measures (from paragraph 13.5.25).

Policy	Summary	Chapter Reference
	infrastructure makes reference to having positive impacts on climate changes as the effect of the policy is to reduce reliance upon car use and therefore GHG emissions, by creating improvements to public transport, highways, footpaths and cycleways. The policy does note that positive impacts are reliant upon individual travel choices which are difficult to change.	
Tomorrow's Norfolk, Today's Challenge – Summary of the County Climate Change Strategy (2008)	'Tomorrow's Norfolk, Today's Challenge' is the climate change strategy for Norfolk, produced and endorsed by the county's eight local authorities. It is a key element of Norfolk's Sustainable Communities Strategy. It recognises the need for climate change adaptation and states that an adaptation plan will be developed following a comprehensive risk assessment.	The Transport Analysis Guidance has been utilised to quantify traffic data for the operational phase end-user GHG emissions specifically. This quantitative assessment forms the basis of the EIA assessment of this emissions source by providing emissions magnitude. This then enables the significance of emissions to be determined.

Table 0.3: Summary of Guidance

Guidance	Summary	Chapter Reference
PAS 2080:2016 Carbon Management in Infrastructure	PAS 2080:2016 provides a common framework for all infrastructure sectors and value chain members on how to manage whole life carbon when delivering infrastructure assets and programmes of work.	The GHG assessment (Section 13.5 of Chapter 13 (document reference 6.1) has been produced in line with the guidance document. The document provides a standard for assessing whole life carbon emission from infrastructure projects and has been used throughout the GHG assessment. Specifically, the standard has been used to identify the construction and operational lifecycle emission sources (Tables 13.4 and 13.5 in Chapter 13).
IEMA (2015), Environmental Impact Assessment Guide to Climate Change Resilience and Adaptation	The guidance document provides a framework for the effective consideration of climate changes resilience and adaptation in EIA, in line with the 2014 amendment to the EU EIA Directive (2014/52/EU). The guidance document covers legislation and policy setting, identifying future climate, building climate resilience into the project, and integration climate change adaptation into the EIA.	The climate resilience assessment (Section 13.6 of Chapter 13 (document reference 6.1) has been produced in line with the guidance document. The guidance sets out principles for including climate vulnerability assessment within EIAs.
European Commission (2013), Guidance on Integrating Climate Change and	The guidance aims to help Member States improve the way in which climate change and	The guidance document has been considered in the developing the assessment methodology

Guidance	Summary	Chapter Reference
Biodiversity into Environmental Impact Assessment	biodiversity are integrated in EIAs carried out across the EU. The guidance provides the following advice in terms of assessing the effects of climate change in EIA: • Consider climate change scenarios at the outset • Analyse the evolving environmental baseline trends • Consider the impact that predicted changes in climate and biodiversity will have on the proposed project, potentially over a long timescale, and the project's resilience and capacity to cope. Base your recommendations on the precautionary principle and acknowledge assumptions and the limitations of current knowledge	and in completion of the assessment (see Section 13.6 of Chapter 13 (document reference 6.1)). Climate projections for the long-term (2080s) have been used in the assessment and a precautionary approach has been applied through choice of a high emissions scenario (RCP8.5). The Scheme's 'capacity to cope' with climate change has been assessed through consideration of pre-mitigation risks and incorporated mitigation measures which reduce the vulnerability of the Scheme to climate-related risks.
European Commission (2016), Climate Change and Major Projects	The guidance document outlies the process for the Climate Change Vulnerability and Risk	The climate resilience assessment (Section 13.6 of Chapter 13 (document reference 6.1) has been

Guidance	Summary	Chapter Reference
	Assessment and the process of managing climate adaptation issues in order to improve the project's resilience to climate change. The process described by the document involves identifying which climate hazards the project is vulnerable to, assessing the level of risk, and considering adaptation measures to reduce that risk to an acceptable level. Vulnerability is considered to be a product of sensitivity and exposure of a project to hazards associated with change in climate variables. Risk is considered to be a product of the likelihood and impact of those hazards occurring.	produced in line with the guidance document. The vulnerability assessment (Appendix 13B (document reference 6.2)) follows the approach set out in the guidance, i.e. identifying vulnerabilities based on the sensitivity and exposure of the Scheme to climate variables. The risk assessment (from paragraph 13.6.21 in Chapter 13 (document reference 6.1) and Appendix 13C (document reference 6.2)) follows the approach set out in the guidance, i.e. assessing risk in terms of the likelihood and consequence of climate risks to the Scheme.
European Commission (undated), Non-Paper Guidelines for Project Managers: Making Vulnerable Investments Climate Resilient	The objective of the guidelines is to help developers of physical assets and infrastructure incorporate resilience to current climate variability and future climate change within their projects. The guidelines explain when and how to apply various steps in order to identify how a project is vulnerable to climate	The vulnerability assessment (Appendix 13B (document reference 6.2)) follows the approach set out in the guidance, i.e. identifying vulnerabilities based on the sensitivity and exposure of the Scheme to climate variables. The risk assessment (from paragraph 13.6.21

Guidance	Summary	Chapter Reference
	variability and change and assess current and future climate risks to the success of the project. Steps include: • Identify climate sensitivities of the project to a range of climate variables • Evaluate exposure to climate change • Assess vulnerability • Assess risks through likelihood and severity of occurrence	in Chapter 13 (document reference 6.1) and Appendix 13C (document reference 6.2)) follows the approach set out in the guidance, i.e. assessing risk in terms of the likelihood and consequence of climate risks to the Scheme.