

# A47/A11 Thickthorn Junction

**Scheme Number: TR010037**

## **Volume 6**

### **6.1 Environmental Statement**

#### **Chapter 1 – Introduction**

APFP Regulation 5(2)(a)

Planning Act 2008

Infrastructure Planning (Applications: Prescribed  
Forms and Procedure) Regulations 2009

March 2021

Infrastructure Planning

Planning Act 2008

**The Infrastructure Planning  
(Applications: Prescribed Forms and  
Procedure) Regulations 2009**

A47/A11 Thickthorn Junction  
Development Consent Order 202[x]

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**CHAPTER 1  
INTRODUCTION**

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# 1. Introduction

## 1.1. Introduction

- 1.1.1. The promoter and applicant of the A47/A11 Thickthorn Junction (now referred to as the 'Proposed Scheme') is Highways England, a government company charged with operating, maintaining and improving England's motorways and major A roads.
- 1.1.2. As the Applicant, Highways England is proposing to improve the existing A47 Thickthorn Junction, due to the high volumes of traffic using the junction and the current delays experienced by users. The proposed upgrade is part of the wider A47 corridor improvement programme.
- 1.1.3. The Proposed Scheme is an Environmental Impact Assessment (EIA) development for the purposes of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 ("EIA Regulations"). This Environmental Statement (ES) presents the information on likely significant environmental effects of the Proposed Scheme that the Applicant is required to submit in accordance with the EIA Regulations.
- 1.1.4. The general location of the Proposed Scheme is shown in Figure 1.1, Site location (**TR010037/APP/6.2**).

## 1.2. Purpose of this report

- 1.2.1. The EIA Regulations require that the findings of the EIA be reported in the form of an ES. The ES is a key part of the application documents submitted by the Applicant in support of the application for a Development Consent Order (DCO) to deliver the Proposed Scheme.
- 1.2.2. The overall purpose of this ES is to provide the Planning Inspectorate with enough information on the anticipated effects of the Proposed Scheme to enable an informed recommendation as to whether the DCO should be granted to be made to the Secretary of State.
- 1.2.3. Table 1.1 sets out the structure of the ES along with a summary of what is included in each chapter.

Table 1.1: ES structure

Chapter	Description
<b>Non-Technical Summary (NTS)</b>	
Separate document to the ES	Summary of the ES in a non-technical language.

<b>Volume 1: Main Report</b>	
Chapter 1 Introduction	Provides an overview of the Proposed Scheme, the purpose and structure of the ES, outlines the legislative and policy framework, and provides competent expert evidence.
Chapter 2 The proposed scheme	Provides a detailed description of elements assessed in the ES, explains the objectives and need of the Proposed Scheme. Chapter also includes the baseline scenario (which refers to conditions that currently exist) and the proposed construction (including any required demolition), operation and management of the Proposed Scheme.
Chapter 3 Consideration of alternatives	Describes the alternatives considered as part of the design process and methodology for the assessment.
Chapter 4 Environment assessment methodology	Provides a summary of the environmental scoping process undertaken, key stages of consultation and feedback received, general assumptions and limitations and an explanation of the significance criteria.
Chapter 5 Air quality	Identifying and assessing the likely significant environmental effects for each specialist environmental parameter, including an introduction to the topic area, describing the approach and method for identifying and assessing likely significant environmental effects, describing the baseline (i.e. existing) conditions, identifying and assessing likely significant effects, considering mitigation measures and assessing the significance of residual effects.
Chapter 6 Cultural heritage	
Chapter 7 Landscape and visual	
Chapter 8 Biodiversity	
Chapter 9 Geology and soils	
Chapter 10 Material assets and waste	
Chapter 11 Noise and vibration	
Chapter 12 Population and human health	
Chapter 13 Road drainage and water environment	
Chapter 14 Climate	
Chapter 15 Cumulative effect assessment	Presents the assessment for combined effects as a result of the Proposed Scheme (the interrelationship between different environmental factors) and cumulative effects from different proposed developments (with the Proposed Scheme being assessed).
Glossary	Abbreviations and definitions used within the ES.
<b>Volume 2: Figures</b>	
To support the corresponding chapters and appendices in Volume 1 and 3	
<b>Volume 3: Appendices</b>	
To support the corresponding chapters and appendices in Volume 1 and 3	

## 1.3. Overview of the proposed scheme

- 1.3.1. It is proposed to create one new connector road between the A11 and A47 with the aim of rerouting traffic away from the existing Thickthorn Junction, relieving congestion, improving the environment and improving journey times. In addition, a new link road will be located between Cantley Lane South and the B1172

Norwich Road, maintaining access to Thickthorn Junction. A new Cantley Lane Footbridge (Cringleford) for walkers, cyclists and horse riders (WCH) across the A47, along with other planned changes to the Thickthorn Junction comprise the Proposed Scheme.

- 1.3.2. The extent of the Proposed Scheme is illustrated in Figure 1.1 (Site location) **(TR010037/APP/6.2)**. A detailed description of the Proposed Scheme is provided in ES Chapter 2, The proposed scheme **(TR010037/APP/6.1)**.
- 1.3.3. Currently, the existing A47/A11 Thickthorn Junction experiences delays and high levels of congestion during peak hours. The situation is predicted to get worse with proposed growth in residential development in Cringleford and Hethersett.
- 1.3.4. Key elements of the Proposed Scheme include:
  - creation of one 1.65km connector road between the A11 and A47 with associated underpass and maintenance layby
  - changes to the existing A47/A11 Thickthorn Junction and slip roads, consisting of: widening of the southern half of the roundabout to provide four lanes, revision of road markings, realignment of some existing slip roads and provision of more lanes, provision of new and improvement of existing traffic signal pedestrian crossings
  - provision of a new 0.95km link road connecting Cantley Lane South with the B1172 Norwich Road to the north including construction of two new overbridges
  - provision of a new turning head on Cantley Lane South to provide turning opportunities for vehicles
  - realignment of the Cantley Stream and nearby access track including modification of the A11 underpass
  - provision of a new footbridge across the A47 for walkers, cyclists and horse riders and subsequent demolition of the existing footbridge
  - provision of new drainage systems including a pump system to protect the Cantley Stream underpass at the A11, an attenuation basin and tank and retention of existing drainage systems where possible

## 1.4. Legislative and policy framework

### Legislative context and the need for EIA

- 1.4.1. The Proposed Scheme is defined as a Nationally Significant Infrastructure Project (NSIP) under Section 14(1)(h) and Section 22 of the Planning Act 2008 (PA 2008) (as amended) by The Highway and Railway ((Nationally Significant Infrastructure Project) Order 2013) together with associated development and other ancillary matters. Further detail concerning the Proposed Scheme's qualification as an NSIP can be found in the prescribed form within the Application Form **(TR010037/APP/1.1)** and in the Explanatory Memorandum to the Draft Development Consent Order **(TR010037/APP/3.2)**.

- 1.4.2. In accordance with the legislation, a DCO is therefore required to allow the construction, operation and maintenance of the Proposed Scheme.
- 1.4.3. The Proposed Scheme falls under schedule 2, paragraph 10 Infrastructure Projects (f) construction of roads of the EIA Regulations. The Applicant has determined that an EIA is required on the basis that there is a potential for significant effects on the environment.
- 1.4.4. In accordance with Regulation 8(1)(b) of the EIA Regulations, the Applicant has notified the Secretary of State for Transport (Secretary of State) in a letter to the Planning Inspectorate dated 05 January 2018 that an ES presenting the findings of the EIA will be submitted with the DCO application for this project.
- 1.4.5. The Localism Act 2011 appointed the Planning Inspectorate (the Inspectorate) as the agency responsible for operating the DCO process for NSIPs. In its role, the Inspectorate will appoint a single person or panel to examine the application for the Proposed Scheme and make a recommendation to the Secretary of State who will make the decision on whether to grant or to refuse the DCO.
- 1.4.6. In accordance with section 104(2) of the PA 2008, the Secretary of State is required to have regard to the relevant National Policy Statement (NPS), amongst other matters, when deciding whether or not to grant a DCO. The relevant NPS for the Proposed Scheme is the National Policy Statement for National Networks (NPSNN) which was designated in January 2015.
- 1.4.7. Other matters that the Secretary of State would consider important and relevant include national and local planning policy, including the National Planning Policy Framework (NPPF), published in February 2019.

## **Planning policy context**

### *National policy*

- 1.4.8. When the DCO application for the Proposed Scheme is to be progressed as an EIA development, an environmental assessment will be undertaken in compliance with national policies and regulations and will also consider whether legal duties and obligations set out within the Road Investment Strategy (RIS) and Highways England Licence would be met.

### *National Planning Policy Framework*

- 1.4.9. The NPPF states that the purpose of the planning system is to contribute to the achievement of sustainable development. Achieving sustainable development means that the planning system has three overarching objectives; economic, social and environmental.

### *National Policy Statement for National Networks*

- 1.4.10. The NPS NN sets out the need for, and the Government's policies to deliver development of NSIPs on the national road network in England and also sets out the primary basis for making decisions of development consent for NSIPs in England. The Government recognises in the Appraisal of Sustainability accompanying the NPS NN that some developments will have some adverse local impacts on noise, emissions, landscape and visual amenity, biodiversity, cultural heritage and water resources. The significance of these effects and the effectiveness of mitigation is uncertain at the strategic and non-local specific level of the NPS NN. Therefore, whilst applicants should deliver developments in accordance with government policy and in an environmentally sensitive way, including considering opportunities to deliver environmental benefits, it is recognised that some adverse local effects of development may remain.
- 1.4.11. Outside the NSIP regime, Government policy is to bring forward targeted works to address existing environmental problems on the strategic road network (SRN) and improve the performance of the network. This includes
- reconnecting habitats and ecosystems
  - enhancing the settings of historic and cultural heritage features
  - respecting and enhancing landscape character
  - improving water quality and reducing flood risk
  - avoiding significant adverse impacts from noise and vibration
  - addressing areas of poor air quality

### *Road investment strategy 2*

- 1.4.12. In April 2020, the Department of Transport (DfT) published the Road Investment Strategy 2 (RIS2) for 2020-2025. The RIS2 sets out the list of schemes that are to be developed by Highways England over the period covered by the RIS.
- 1.4.13. Highways England, as the strategic highways company and appointed by the Secretary of State must, in exercising its functions and complying with its legal duties and other obligations, act in a manner which it considers best calculated to, among others:
- Minimise the environmental impact of operating, maintaining and improving its network and seek to protect and enhance the quality of the surrounding environment.
  - Conform to the principles of sustainable development.



## Highways England policy

### *Highways England Licence*

1.4.14. The Highways England Licence document sets out key requirements which must be complied with by the Licence holder as well as statutory guidance. In exercising its functions and complying with its legal duties and obligations, the Licence holder must act in such a manner which it considers best calculated to:

- Ensure the effective operation of the network.
- Ensure the maintenance, resilience, renewal, and replacement of the network.
- Ensure the improvement, enhancement and long-term development of the network.
- Ensure efficiency and value for money.
- Protect and improve the safety of the network.
- Co-operate with other persons or organisations for the purposes of coordinating day-to-day operations and long-term planning.
- Minimise the environmental impacts of operating, maintaining and improving its network and seek to protect and enhance the quality of the surrounding environment.
- Conform to the principles of sustainable development.

1.4.15. In complying with section 4.2(g) and section 5.23 of the Licence, and its general duty under section 5(2) and section 5.23 of the Infrastructure Act 2015 to have regard for the environment, the Licence holder must:

- Ensure that protecting and enhancing the environment is embedded into its business decision-making processes and is considered at all levels of operations.
- Ensure the best practicable environmental outcomes across its activities, while working in the context of sustainable development and delivering value for money.
- Consider the cumulative environmental impact of its activities across its network and identify holistic approaches to mitigate such impacts and improve environmental performance.
- Where appropriate, work with others to develop solutions that can provide increased environmental benefits over those that the Licence holder can achieve alone, where this delivers value for money.
- Calculate and consider the carbon impact of road projects and factor carbon into design decisions and seek to minimise carbon emissions and other greenhouse gases from its operations.

- Adapt its network to operate in a changing climate, including assessing, managing and mitigating the potential risks posed by climate change to the operation, maintenance and improvement of the network.
- Develop approaches to the construction, maintenance and operation of the Licence holder's network that are consistent with the government's plans for a low carbon future.
- Take opportunities to influence road users to reduce the greenhouse gas emissions from their journey choices.

### *Highways England Delivery Plan*

1.4.16. The Highways England Delivery Plan sets out Highways England's long-term plans for the modernisation and renewal of our road network over the five year period from 2020-2025. It provides a brief outline of what Highways England have delivered during 2015-2020 and sets out a clear programme of activity for 2020-2025, as well as annual and future commitments. It complements the original Delivery Plan (Highways England Delivery Plan 2015-2020), outlining progress made with this work.

### *Highways England Operational Metrics Manual*

- 1.4.17. Key performance indicators (KPI) and other performance indicators have been set out from the June 2020 Operation Metrics Manual produced in collaboration with DfT and Office of Rail and Road. KPIs for Being environmentally responsible include:
- Noise: 7,500 households benefiting from noise reduction in Noise Important Areas
    - The number of households within mitigation NIAs where noise has been reduced through Highways England designated fund projects
  - Biodiversity: No net loss across all Highways England activities by the end of RP2
    - Deliver no net loss of biodiversity, measured using an industry standard way of measuring biodiversity changes referred to as the biodiversity metric.
  - Air quality: Bring links within Highways England control and agreed with DfT into compliance as soon as possible
    - The number of strategic road network links in exceedance of the legal nitrogen dioxide (NO<sub>2</sub>) limits as set by the European Union and accepted by the government
  - Highways England carbon emissions: Reduce emissions. Target from 2021-22, to be defined in 2020-21.
    - Metric to become operational from 1 April 2021

- 1.4.18. The following performance indicators (PIs) for being environmentally responsible are as follows:
- Supply chain carbon emissions
    - The carbon footprint associated with Highways England's supply chain and also normalised by the volume of work undertaken.
  - Condition of cultural heritage assets
    - The overall condition of the culturally significant assets owned by Highways England
  - Water quality
    - The length of watercourse enhanced through the mitigation of medium, high, and very high-risk outfalls as well as through other enhancements such as river retraining / rewilding
  - Litter
    - The percentage of the strategic road network where litter is graded at A or B as defined in the Code of practice on litter and refuse 2006.
- 1.4.19. Through the EIA process, potential effects on ecological habitats and species have been considered and measures have been included within the Proposed Scheme design to avoid, mitigate and enhance biodiversity as detailed in ES Chapter 8, Biodiversity **(TR010037/APP/6.1)**. These have been developed in a way that furthers the objective of delivering a net biodiversity gain on the SRN by 2040. Avoiding and mitigating poor air quality has been a key consideration in the design development and environmental assessment of the Proposed Scheme, refer to ES Chapter 5, Air quality **(TR010037/APP/6.1)**.

#### *Highways England Designated Funds*

- 1.4.20. A series of ringfenced funds for actions beyond business as usual are available across environmental disciplines including the environment and wellbeing designated fund. This programme is formed of four funds:
- Safety and congestion
  - Environment and wellbeing
  - Users and communities
  - Innovation and modernisation
- 1.4.21. The designated funding streams focus on making improvements that make a difference and deliver lasting benefits for road users, the environment and communities across England.

## 1.5. Competent expert evidence

- 1.5.1. The EIA Regulations require that the ES is prepared by 'competent experts' (Regulation 14 (4) (a)). Sweco have undertaken the ES as the competent expert on behalf of Highways England. Sweco has been awarded the EIA Quality Mark from the Institute of Environmental Management and Assessment (IEMA), demonstrating competency in ES preparation.
- 1.5.2. The EIA has been undertaken by competent experts with the relevant and appropriate experience in their respective topics. A competent expert section within the individual environmental topic chapters has been provided as evidence.
- 1.5.3. The overall EIA lead and competent expert responsible for the ES is a full member of the Institute of Environmental Sciences and a Chartered Member of the Landscape Institute.