A47 NORTH TUDDENHAM TO EASTON

A47 North Tuddenham to Easton Preliminary Environmental Information Report Non-Technical Summary

PCF STAGE 3
|
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Notice

Highways England Programme Leader:	PETER HAVLICEK
Highways England Project Manager:	JAMES POWIS
Galliford Try Sweco Delivery Integration Partner, Project Manager:	ALAN SMITH
PCF STAGE 3 Supplier:	GALLIFORD TRY

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Prepared for:

Galliford Try
Cowley Business Park
Cowley
Uxbridge
Middlesex
UB8 2AL

Prepared by:

Sweco UK Ltd
Grove House
Mansion Gate Dr
Leeds
LS7 4DN

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1. Non-technical summary

1.1. Introduction

1.1.1. Highways England is proposing an upgrade of approximately 9km of single carriageway road between North Tuddenham and Easton to a dual carriageway (the Proposed Scheme). This section of road is an important highway link for both local commuter traffic to and from the west of Norwich as well as providing the main route in the area for longer distance trips across the country travelling east and west.

1.1.2. The Proposed Scheme will help unlock economic growth in the East of England by improving journey reliability, increasing safety and improving connectivity.

1.1.3. This Proposed Scheme is a “Nationally Significant Infrastructure Project” under the Planning Act 2008, which means that an application will need to be made for permission to build and operate the Proposed Scheme. The permission is called a Development Consent Order (DCO) and requires Highways England to make an application to the Secretary of State for development consent to build and operate the Proposed Scheme.

1.1.4. Development consent is granted by the Secretary of State through a DCO which sets out the powers to construct and operate the Proposed Scheme.

1.1.5. Before an application for a DCO is submitted, the local community and other stakeholders must be formally consulted on the proposals, including a description of the Proposed Scheme, the likely significant environmental effects based on the preliminary environmental information available at the time, measures to avoid or reduce such effects and the alternatives considered. This is to support consultees in developing an informed view of the likely significant environmental effects of the Proposed Scheme.

1.1.6. Environmental information continues to be collected; identifying the potential impacts of the Proposed Scheme and developing measures to avoid or reduce adverse impacts – a process known as an Environmental Impact Assessment (EIA).

1.1.7. While the EIA is ongoing, Highways England have prepared a Preliminary Environmental Information Report (PEIR) to describe the environmental setting and currently anticipated impacts of the Proposed Scheme on the environment.

1.1.8. The PEIR has been developed for the purposes of the above consultation and presents currently available information from the ongoing EIA. This document provides a summary of the PEIR in non-technical language.

1.1.9. The information contained within the PEIR is preliminary and the findings will be developed further in the Environmental Statement (ES) to reflect the evolution of the design of the Proposed Scheme, informed by the feedback from the consultation and the ongoing EIA process.

1.1.10. The ES, presenting the full results of the EIA, will be submitted with the application for the DCO.

1.1.11. This report is a non-technical summary of the PEIR for the Proposed Scheme. It provides a summary of the project, why it is necessary, the potential effect on the environment and the proposals to avoid, remove or minimise these effects.

1.2. The applicant

1.2.1. Highways England is the applicant, and the Strategic Highways Company as defined in the Infrastructure Act 2015 and is charged with modernising and maintaining England's strategic road network, as well as running the network and keeping traffic moving.

1.3. The proposed scheme

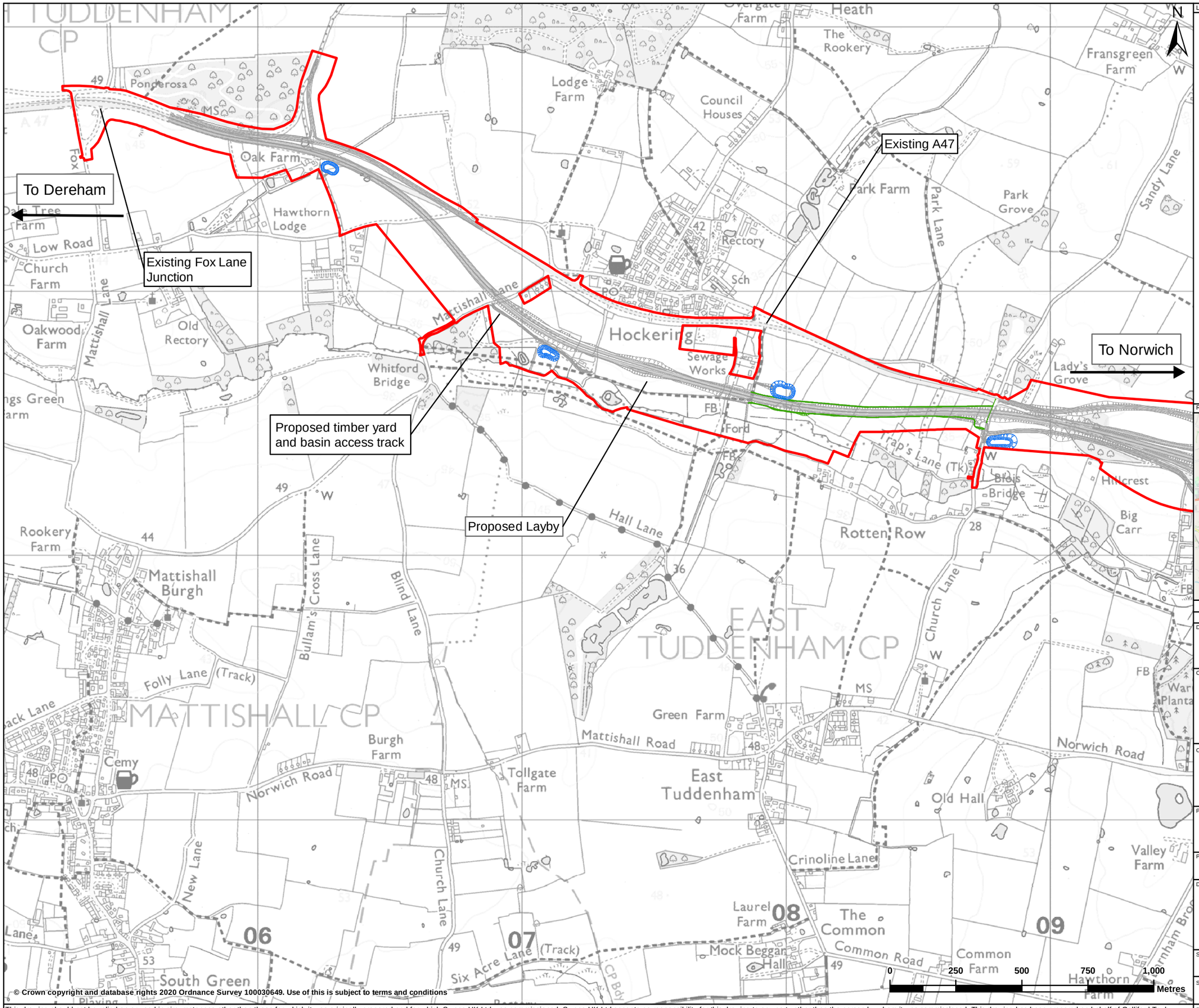
1.3.1. The project is referred to as the 'Proposed Scheme'.

1.3.2. The A47 from North Tuddenham to Easton is located to the west of Norwich and forms part of the main arterial highway route connecting Norwich with Great Yarmouth to Leicester and the Midlands via King's Lynn.

1.3.3. The section of single carriageway section of the A47 from North Tuddenham to Easton acts as a bottleneck resulting in congestion and leading to longer and unreliable journey times.

1.3.4. The Proposed Scheme consists of the following elements:

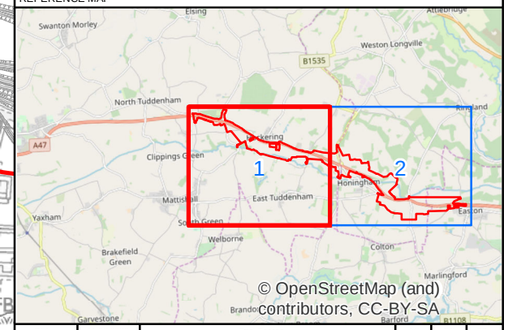
- 9km of new dual carriageway, running to the south of the existing A47 at Hockering and to the north of the existing A47 at Honingham
- two new grade separated junctions where the A47 passes over the local roads at the intersections of Berry's Lane with Wood Lane (Wood Lane junction) and Blind Lane with Taverham Road (Norwich Road junction)
- removal of the existing roundabout at Easton to create a free-flowing dual carriageway
- three bridges carrying the A47 over the River Tud and the proposed Wood Lane and Norwich Road junctions
- closing the existing Church Lane to Sandy Lane connection to the A47 with new sideroads providing access to Wood Lane junction
- retaining sections of the existing A47 for local road connections and new routes for walkers, cyclists and horse riders where possible, with abandoned sections to be landscaped
- constructing a new underpass for walkers and cyclists to the west of the proposed Norwich Road junction keeping north – south connectivity
- a new route for walkers and cyclists linking Honingham with St Andrews Church
- a new connection to maintain the north – south route from Honingham towards Weston Green, as the proposed Wood Lane junction cuts across an existing restricted byway
- new drainage systems, including pollution control devices. These are illustrated in the PEIR
- diversion of some utilities infrastructure such as gas mains if needed
- two new laybys on the A47 between Fox Lane and the proposed Wood Lane junctions
- a site compound, storage areas and temporary vehicle parking located within the scheme boundary when construction is taking place



LEGEND

- Proposed scheme layout
- SuDS ponds
- Shared footway or cycleway
- Scoping boundary

REFERENCE MAP



REV	DATE	REVISION NOTE	ORG	CHK'D	APP'D
P01	11/02/2020	First Edition	AC	EC	FB

DESIGNER

SWECO

CONTRACTOR

GallifordTry

CLIENT

highways england

PROJECT TITLE

A47 NORTH TUDDENHAM TO EASTON

PROJECT STAGE

PCF STAGE 3

DRAWING TITLE

FIGURE 1: Proposed Scheme Layout (western extent)

SUITABILITY

FOR INFORMATION

SHEET SIZE	SCALE	STATUS
A3	1:13,750	S0

DRAWING NUMBER

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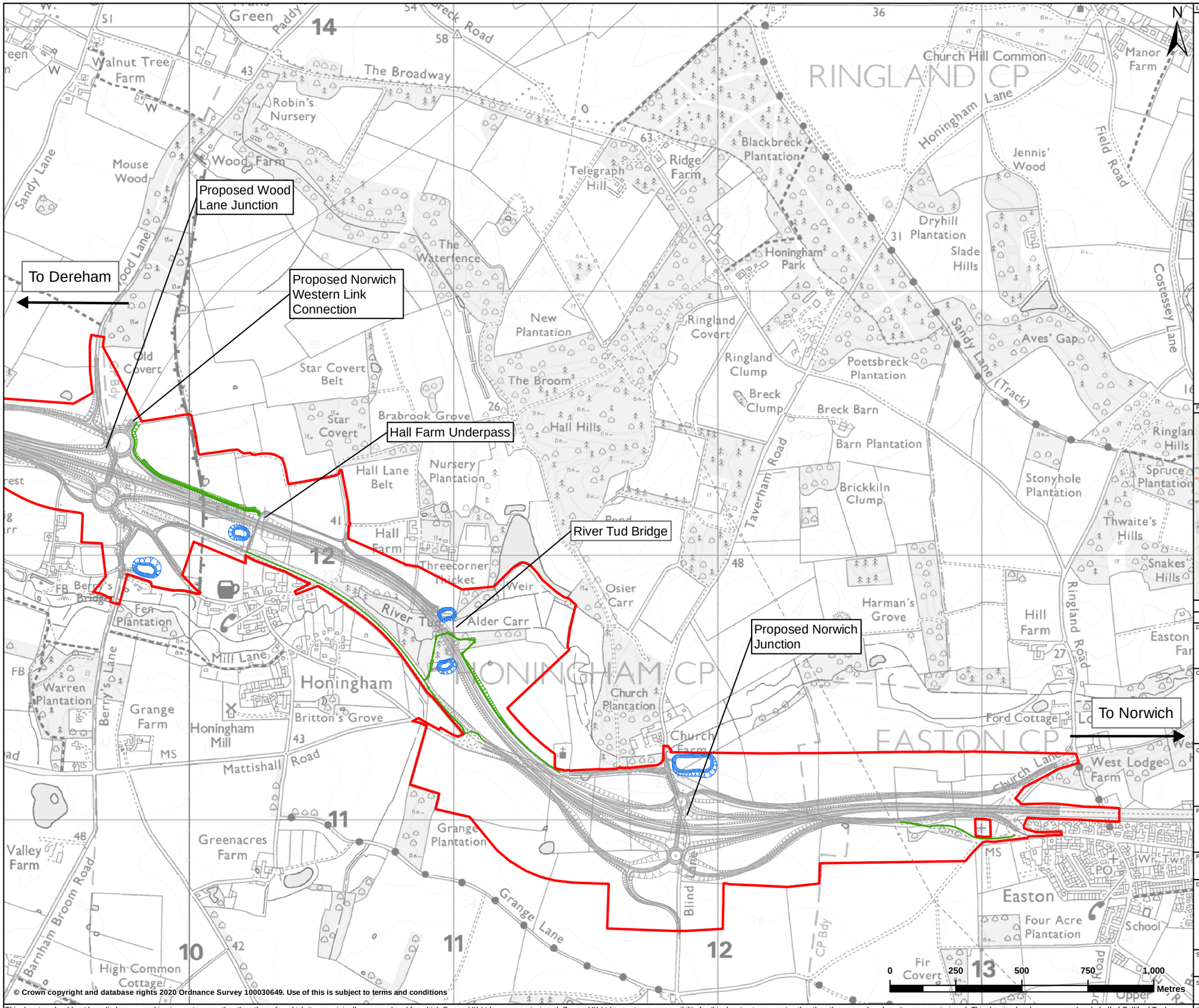

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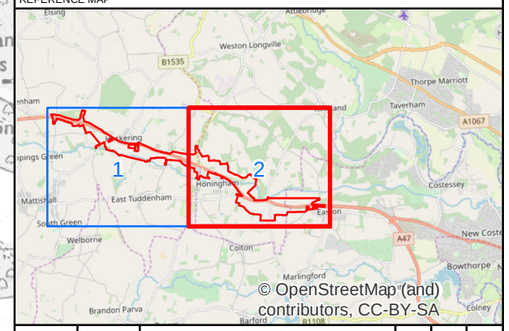

REV	DATE	REVISION NOTE	ORG	CHK'D	APP'D
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DESIGNER: SWECO

CONTRACTOR: GallifordTry

CLIENT: highways england

PROJECT TITLE: A47 NORTH TUDDENHAM TO EASTON

PROJECT STAGE: PCF STAGE 3

DRAWING TITLE: FIGURE 2: Proposed Scheme Layout (eastern extent)

SUITABILITY: FOR INFORMATION

SHEET SIZE	SCALE	STATUS
A3	1:13,750	S0

DRAWING NUMBER: HE551489-GTY-EGN-000-DR-LX-30011

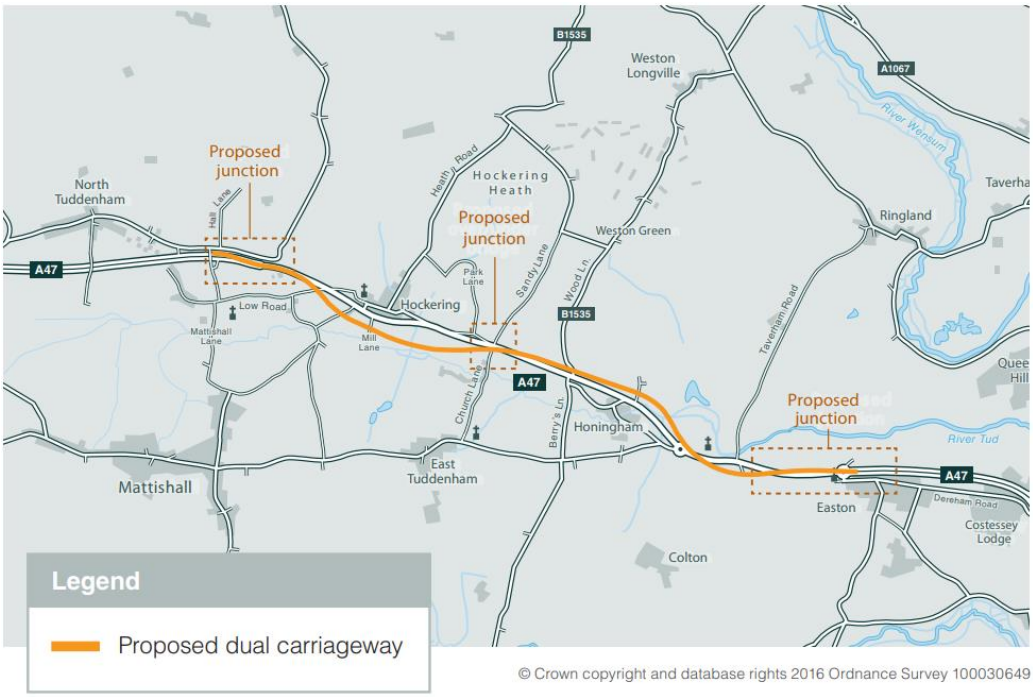
1.4. Alternatives

1.4.1. Fourteen potential options were developed and assessed in 2017 to identify their performance against environmental, engineering, transportation and economic criteria so that they could be compared and contrasted to allow the most appropriate options to be taken forward.

1.4.2. The Preferred Route Announcement in 2017 detailed that four of these options solved the transportation problem by providing a dual carriageway link which will improve the traffic flow, reduce journey times on the route and increase the route safety and resilience.

1.4.3. These options are described in the Scoping Report a copy of which can be accessed via the following link:

1.4.4. https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010038/TR010038-000028-TUDD%20-%20Scoping%20Report.pdf



1.5. Environmental impact assessment

1.5.1. Environmental Impact Assessment (EIA) is a process that identifies the likely environmental effects (both adverse and beneficial) of a proposed development. Environmental effects are assessed through understanding of the potential impacts and the sensitivity of the receptors for a given scheme. It ensures that the importance of effects are properly considered and that the opportunity for

reducing any adverse effects are taken into account as part of the design development process.

1.5.2. EIA also ensures effects considered during the design, competent authorities, statutory authorities and other interested parties. The EIA is undertaken in accordance with up to date legislation and guidance and includes a spatial and temporal scope for its assessment.

1.5.3. Further work continues to be undertaken as part of the EIA process to confirm the preliminary findings in the PEIR. The final assessment of environmental effects will be presented in the ES that will be submitted with the DCO application.

1.6. Environmental topics

1.6.1. Each environmental topic chapter of the PEIR describes the local environment and identifies any sensitive receptors such as Sites of Special Scientific Interest, people living in the vicinity of the Proposed Scheme and local environment management areas such as Air Quality Management Areas or Noise Important Areas.

1.6.2. Further work will be undertaken in all chapters to develop design interventions to limit or reduce impacts and promote opportunities for the environment wherever possible. Design development and potential mitigation will be reported in the ES as well as further detailing of baseline conditions and likely changes during both construction and operation for all identified receptors.

1.7. Air quality

1.7.1. A range of potentially affected sensitive receptors have been identified within the North Tuddenham to Easton study area. Following the finalisation of the traffic data and confirmation of the affected road network, these receptors are to be included in the ES as required.

1.7.2. There are currently no Air Quality Management Areas (AQMAs) declared in the Broadland District Council or South Norfolk Council boundaries. The nearest AQMA to the Proposed Scheme is the Central Norwich AQMA approximately 9km east declared by Norwich City Council, the Proposed Scheme does not fall within the Norwich City Council authority boundary. In June 2017, an AQMA was declared in Swaffham (Breckland District Council) for exceedances of the annual mean of NO_2. This is approximately 24km west of the site. This AQMAs are not expected to be impacted upon by the Proposed Scheme.

1.7.3. The Proposed Scheme is predicted to impact the air quality at sensitive receptors adjacent to the A47 due to redistributing traffic flows and changes to

the road alignment. A review of the likely road alignment changes associated with the Proposed Scheme suggests there is potential for both a positive and negative impact on air quality, however this will be determined by conducting a full dispersion modelling study.

1.7.4. Operational air quality specific mitigation measures will be reported within the ES.

1.8. Cultural heritage

1.8.1. Cultural heritage includes archaeology, historic buildings or structures and historic landscapes including parks and gardens.

1.8.2. The historic landscape in the area is considered to be a combination of ancient, post medieval and modern in origin ranging from prehistoric flint tools and flakes, Roman cropmarks, early medieval tweezers, medieval settlement, post-medieval rural land and modern industrial activities.

1.8.3. There are no scheduled monuments, conservation areas, registered parks and gardens or historic battlefields within the study area.

1.8.4. There are 19 listed buildings within the study area, three of which are grade I listed.

Potential construction impacts

1.8.5. Potential construction impacts will be assessed and developed for the ES:

- temporary and permanent land-take
- demolition, site clearance and ground preparation
- excavation, ground disturbance and compaction
- vibration from plant and machinery

- building up site levels with made-ground
- construction of new or modification of existing infrastructure
- diversion / alteration of existing services or installation of new services
- landscaping and planting

Potential operation impacts

1.8.6. Potential operational impacts will be assessed and developed for the ES:

- increased visual intrusion both to and from sites or buildings of national or regional importance
- alteration to the historic setting or character of a designated site or undesignated site of national or regional significance
- increase or decrease in noise, vibration or dust such that the amenity or physical fabric of a nationally or regionally important site is either adversely impacted or improved
- opportunities of long-term preservation and setting restoration of heritage assets
- opportunities to enhance the character and setting of a designated site or undesignated site of national or regional significance
- opportunities for heritage related education and tourism

1.9. Landscape and visual

1.9.1. The study area is predominately arable land enclosed by winding lanes and hedgerows, with pockets of ancient woodland and remnant heath cut through by pastoral river valleys. The broadly flat, rural landscape is an ancient countryside with a long-settled agricultural character. The eastern scheme extents are more gently undulating relative to the broadly flat landscape of the western extents.

1.9.2. The western part of the study area lies within the Breckland District Council's landscape character assessment. The eastern extents of the study area coincide with the coverage of Broadland District and South Norfolk Council landscape assessments.

1.9.3. The removal of some existing vegetation, earthworks and presence of construction plant, materials, machinery, compounds and lighting would potentially result in local landscape and visual impacts during construction.

1.9.4. As part of the mitigation, a detailed planting design will be produced to integrate the design into the surrounding landscape. This includes numerous considerations for amenity like visual screening and biodiversity.

1.9.5. The landscape and visual impact assessment considers the Proposed Scheme during the first year of operation (year one) and at the 15th year of operation. This allows for proposed planting (trees) to grow and screen particular elements of the Proposed Scheme as part of the mitigation.

1.9.6. Visual impacts on occupiers of residential properties and recreational users of public rights of way are likely during both the construction and operational phases. Visual impacts during construction would be associated with the removal of existing vegetation, earthworks and construction activity. Visual impacts during operation would be associated with views of the road, infrastructure and vehicles.

1.9.7. There would potentially be impacts on landscape character due to the relative prominence of Proposed Scheme infrastructure (including overbridges) prior to the establishment of proposed planting. Impacts on local landscape character are likely during both the construction and operational phases as a result of the enlarged junctions and overbridges within a relatively flat and open landscape.

1.10. Biodiversity

1.10.1. The study area is predominately arable land and hedgerows, with pockets of ancient woodland and the River Tud.

1.10.2. There are valuable habitats and species of nature conservation importance which could be impacted by the Proposed Scheme. The results of the ecological surveys will help to identify mitigation measures, with a view to safeguard the conservation status of populations through both the construction and operational phases.

1.10.3. The Proposed Scheme would result in small, localised losses of habitats and potentially some severance of connecting habitats (hedgerows, tree lines) on the verges where the greater losses would be experienced. This may impact more mobile species such as bats and birds. However, as no areas are expected to have an overall reduction of the habitat at any point on the Proposed Scheme, long-term impacts on most species are not expected.

1.11. Geology and soils

1.11.1. The land around the A47 is predominately agricultural which the majority of which used for arable production. The quality of the agricultural land will be determined and reported within the ES.

1.11.2. There are no designated sites, for example Sites of Special Scientific Interest or Geological Conservation Review Sites, within the study area that are designated for their geological or geomorphological importance.

1.11.3. The potential impacts during construction, due to the nature of the works, include soil compaction adjacent to the new road corridor and contamination of site soils. Land take required, as part of the Proposed Scheme would result in permanent impacts on agricultural land. The extent and significance of the impacts will be reported in the ES.

1.11.4. The Construction Environmental Management Plan would include a Soil Management Plan, incorporating guidance provided by the Code of Practice for the Sustainable Use of Soils on Construction Sites, to ensure the use of best practice measures for soil handling.

1.12. Material assets and waste

1.12.1. The assessment for materials considers potential impacts of the Proposed Scheme from the use of material resources and generation of waste.

1.12.2. There are no current estimates on material resource use and waste generation for the construction of the Proposed Scheme as the design has not been developed in detail yet. These shall be developed alongside the design and reported in the ES accordingly.

1.12.3. For a road infrastructure project of this size, there is the potential for adverse impacts during construction due to the anticipated use of materials and generation of waste. Operational impacts are considered to be unlikely.

1.13. Noise and vibration

1.13.1. Sensitive receptors, such as residential properties, in proximity to the Proposed Scheme has been identified. Over 800 noise sensitive receptors have been identified within 600m of the Proposed Scheme. Some of these receptors are located close to the existing A47 so are currently exposed to relatively high noise levels due to road traffic.

1.13.2. Noise impacts during the construction of the Proposed Scheme are likely to occur at nearby sensitive receptors; particularly those located in close proximity to the existing and proposed A47. Any impacts would be controlled by a Construction Environmental Management Plan.

1.13.3. Any changes in road traffic noise will be calculated, assessed and modelled for the Proposed Scheme. The results of which will be reported in the ES. Any design interventions or proposed mitigation measures will be reported in the ES.

1.14. Population and human health

1.14.1. The section of the A47 in the study area is a single carriageway road which provides a connection for people, places, businesses and enables access to employment, healthcare, education and other community assets.

1.14.2. No demolition of private property is planned as part of the Proposed Scheme Permanent land-take would be required across the Proposed Scheme, the majority of which is agricultural land.

1.14.3. Residential properties, local businesses, community facilities and development are identified in the study area. Walking, cycling and horse riding facilities are also located throughout the study area.

1.14.4. Health profiles for Breckland Council, Broadland District Council and South Norfolk Council have been identified and will be used for the assessment on Human Health.

1.14.5. Impacts are likely during the construction of the Proposed Scheme as a result of land-take, community severance, human health impacts and the severance of walking, cycling and horse riding facilities. However, mitigation measures will be identified to avoid, remove or minimise any potential impacts.

1.14.6. During the operation of the Proposed Scheme, there are likely to be impacts on walking, cycling and horse-riding routes, development land, land-take and human health.

1.15. Road drainage and the water environment

1.15.1. The main water features within the study area are within the River Tud catchment area. The Proposed Scheme crosses the River Tud at one location to the east of Honingham and a tributary of the River Tud south east of Hockering. There are numerous smaller drainage channels and isolated ponds within the study area.

1.15.2. The River Wensum Site of Special Scientific Interest and Special Area of Conservation is located, at its closest, 1.6km north east of the Proposed Scheme extent but approximately 7.3km downstream of the study area.

1.15.3. A small proportion of the Proposed Scheme is within Flood Zone 2, which is associated with medium risk of flooding from rivers and sea and Flood Zone 3, which is associated with high risk of flooding from rivers:

- The Scheme crosses the River Tud and its associated Flood Zone 3b (classified as the functional floodplain and is considered to be the highest risk of flooding from rivers and sea) east of Honingham.
- The Scheme crosses a tributary of the River Tud and its associated Flood Zone 3a (which is associated with high risk of flooding from rivers and sea) south east of Hockering.
- An area of Flood Zone 3a is within the proposed site boundary at Berry's Lane, east of Honingham.

1.15.4. Possible impacts from the Proposed Scheme on the water environment would be due to:

- contamination of groundwater and surface water during construction and operation
- changes to runoff, drainage and flood risk during construction and operation
- reduction in groundwater resource to abstractions and groundwater dependent surface water features
- Pollution of groundwater and surface water during operation due to routine road runoff or accidental spillages

1.15.5. Mitigation in the form of a suitably designed drainage system incorporating drainage ponds, where appropriate alongside best practice construction methods is recommended to reduce such impacts to levels not considered to be significant. Specific mitigation measures for protected species would be finalised

within the road drainage and water environment chapter of the ES.

1.16. Climate

1.16.1. The UK government has legally binding targets for reducing the carbon emissions by 80% by 2050, relative to a 1990 baseline. As part of the EIA, there is a requirement to assess the impacts of projects on climate and their vulnerability to climate change.

1.16.2. The assessment of effects on climate will consider the extent to which carbon emissions resulting from the Proposed Scheme may impact the global climate and contribute towards climate change.

1.16.3. The carbon baseline has been taken as the current situation in which no proposed infrastructure is built and considers existing travel and traffic patterns.

1.16.4. The Proposed Scheme is anticipated to generate an increase in carbon emissions during both construction and operation. Changes in climate have the potential to impact Proposed Scheme assets and environmental receptors during operation and pose a potential risk.

1.17. Combined and cumulative

1.17.1. The term ‘cumulative’ in respect of impacts can be defined as:

- the environmental topic-specific impacts resulting from a single project upon a single receptor / resource
- the impacts from different projects (with the project being assessed) (i.e. Norwich Western Link Connection)

1.17.2. This chapter within the ES will bring together the principal findings of each topic chapter in order to identify and assess the combined and cumulative impacts of

the Proposed Scheme in associated with other existing or future developments within the study area.

1.18. Consultation

1.18.1. This Non-Technical Summary has been prepared to help inform anyone potentially affected or interested in the Proposed Scheme to understand the environmental setting and currently anticipated impacts of the Proposed Scheme on the environment so that these considerations can be taken into account in your response to the consultation.

1.18.2. Your feedback from the consultation will inform our continuing development of the Proposed Scheme. Once we have taken your feedback into consideration, we plan to submit our application for a Development Consent Order in November 2020. We will also prepare a report on the consultation, recording the feedback and our response, which will be published with our application.

1.19. How to find out more

1.19.1. To find out where and when the events are being held, visit our website or contact us by phone or email.

1.19.2. Visit our website: https://highwaysengland.co.uk/projects/a47-north-tuddenham-to-easton-improvement-scheme/

1.19.3. Here, you can find information on the background of the Proposed Scheme plus information on the current consultation including:

- details on when and where our public events are being held

- details of information and deposit point locations at local libraries
- our statement of Community Consultation
- the consultation brochure and feedback form
- the Proposed Scheme, including the red line boundary the will form part of the Development Consent Order application
- the PEIR as well as this accompanying Non-Technical Summary

1.19.4. Email us: A47NorthTuddenhamtoEastonRIS@highwaysengland.co.uk

1.19.5. Phone us: 0300 123 5000