

A47 Blofield to North Burlingham Dualling

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APFP Regulation 5(2)(a)

Planning Act 2008

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

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Infrastructure Planning

Planning Act 2008

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

A47 Blofield to North Burlingham Development Consent Order 202[x]

NON-TECHNICAL SUMMARY

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A47 Blofield to North Burlingham Dualling



Environmental Statement: Non-Technical Summary December 2020





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Introduction

Highways England proposes to upgrade the existing section of single carriageway between Blofield and North Burlingham to dual carriageway. The existing A47 from Blofield to North Burlingham experiences delays and high levels of congestion during peak hours.

Highways England aims to improve the traffic flow, reducing journey times on the route, increasing the route safety and resilience, and improving the environment. The Proposed Scheme is also intended to support economic growth by making journeys safer and more reliable.

The proposal is a 'Nationally Significant Infrastructure Project' under the Planning Act 2008, which requires Highways England to obtain permission before construction and operation can commence. This permission is called a Development Consent Order (DCO). The DCO application will be examined by the Planning Inspectorate which will report its findings to the Secretary of State for Transport to aid decision making. Environmental information has been collected to identify the potential impacts of the Proposed Scheme and develop measures to avoid or reduce adverse impacts - a process known as environmental impact assessment (EIA).

An Environmental Statement (ES) has been prepared to accompany the DCO Application. This sets out a description of the Proposed Scheme and the reasonable alternatives considered in the development of the design, the environmental setting, potential impacts and the likely significant effects of the Proposed Scheme on local communities and the environment, and the measures proposed to mitigate these effects. This document provides a summary of the ES in non-technical language.



The Applicant

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



The Proposed Scheme

The A47 Blofield to North Burlingham road improvement project is referred to as the 'Proposed Scheme'. Located approximately 9km to the east of Norwich and forms part of the main travel route connecting Norwich and Great Yarmouth.

The A47 from Blofield to North Burlingham currently has a single lane of traffic travelling is each direction with several connecting local roads.

The route currently experiences delays and high levels of slow moving traffic during peak hours. The situation is predicted to get worse with more homes planned in the area.

The key timescales:

- Application submission 2020
- Start of construction work 2022
- Open for traffic 2024

The Proposed Scheme includes:

- a new dual carriageway south of the existing A47connecting to the existing dual carriageway sections of the A47 to the east and west
- a new overbridge east of Blofield
- new, safer junctions at Yarmouth Road and the B1140:
 - new merge lane and closing the central reserve
 - a compact grade separated junction at B1140 with overbridge
- a new two way junction at Main Road, to the east of North Burlingham
- provision of approximately 2.8km of new footpath and 3km of new shared footway / cycleway in the area

- returning the existing A47 to the local network
- introduction of lighting at the Yarmouth Road junction and a new lighting layout at the B1140 junction
- closure of an existing layby and provision of a new layby
- a new agricultural access track to the south of new dual carriageway
- new drainage, fencing, safety barriers and signage
- a new biodiversity pond
- planting including mature trees, new habitat and species rich grassland







Alternatives considered

Route selection

To resolve the transport problem between Blofield and North Burlingham, eight potential options were originally developed.

These options were then assessed to identify their performance against safety, environmental, engineering, transportation and economic criteria so that they could be compared and a preference selected.

Four of the eight options were taken forward for more detailed assessment and nonstatutory public consultation:

- Option 1: on top of the existing A47
- Option 2: route travelled both north and south of the existing A47
- Option 3: route was further south of the existing A47
- Option 4: route to the south running near and mostly parallel to the existing A47

Option 4 was the favoured option by the public by a significant margin. The option solves the traffic and safety problems, can

be built with the least disruption to drivers during construction and assessed to have the least impact on the environment. This was the option that was taken forward and the design developed further.



B1140 Junction Options

During early stages of the design a roundabout was suggested to replace the existing B1140 junctions at the A47. However, upon closer examination of the traffic figures this option was deemed unsuitable and had operational safety concerns.

The junction layout was chosen as it possesses the following advantages:

- Used existing roads as part of the junction with minimal amendments to the existing A47 carriageway.
- Can be constructed offline from the existing A47 minimising disruption.
- The priority of the B1140/Acle road junction is changed to maintain the B1140 as the priority.
- The West Bound off slip is positioned away from the existing dwelling currently located at the existing junction.



Environment Impact Assessment

EIA is a process that identifies the likely significant 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. The process ensures that the importance of effects is properly considered and that the opportunities for reducing any adverse effects are taken into account as part of the design development process. The approach to the EIA involves: information gathering to establish the baseline and environmental setting, considering the potential impacts of the Proposed Scheme, consultation, developing measures to prevent or reduce adverse impacts, and identifying the residual significant effects.

The findings of EIA inform the design process and are communicated to competent authorities, statutory authorities and other interested parties. The EIA is undertaken in accordance with up to date legislation and guidance and within the spatial and temporal scope for its assessment.

The findings of the EIA are presented in the Environmental Statement (ES). This document is a summary of the ES in nontechnical language. The ES and this nontechnical summary are submitted with the DCO application.







Air Quality

Air quality emissions at selected sensitive human and ecological receptors have been assessed, modelling the change in air quality concentrations. The model has been compared against local air quality monitoring data and has been used to predict the air quality impacts caused by changes in traffic flows and road alignments as a result of the Proposed Scheme.

Construction activities are programmed to last less than two years and potential impacts will be mitigated and managed through good practice during construction. It is unlikely there will be a significant effect from construction activity or traffic on air quality or on the UK's ability to comply with the Air Quality Directive and these were therefore screened out of the detailed assessment.

During operation, the Proposed Scheme is expected to cause both adverse and beneficial effects on emission concentrations at sensitive human and ecological receptors. The assessment concluded that these effects will not be significant.

Furthermore, the operation of the Proposed Scheme is not predicted to affect compliance with the European Union Directive on ambient air quality.

With no significant effects predicted, no mitigation is required.

Cultural Heritage

Cultural heritage covers archaeology, historic buildings/structures and historic landscapes including parks and gardens. Geophysical, metal detecting and archaeological trenching surveys were used to inform the assessment.

The Proposed Scheme will have both beneficial and adverse effects on cultural heritage. Potential adverse impacts have been reduced or eliminated with a combination of sensitive design and targeted mitigation such as planting and screening. Where adverse effects could not be avoided, a programme of archaeological recording and publishing is proposed to mitigate.

Significant beneficial effects have been identified for the setting of the Grade I listed St Andrew's Church in North Burlingham, due to moving the A47 traffic further away and maintaining/providing an appropriate density of planted screening.

Other significant beneficial effects have been identified in the planned conservation of two mileposts and a guidepost along the route of the existing A47, which Highways England will also propose for listing by Historic England.

Opportunities to enhance the cultural heritage of the area have been proposed in the form of a new viewpoint and potential information boards as well as renaming of the proposed layby to reference historic parkland. These measures will improve public awareness and appreciation of the history of North Burlingham.



Landscape

The Landscape and Visual Impact Assessment is a review of the existing environment, which identifies the potential impacts of the Proposed Scheme on the surrounding landscape and views.

The land used for agriculture is generally made up of small to medium scale fields which are bordered by high hedgerows and trees. The area also has isolated farmsteads and small villages with large medieval churches which are linked by a network of lanes.

The study area lies within the Broadland

District Council Landscape Character Assessment 'Blofield Tributary Farmland' and 'Freethorpe Plateau Farmland' Landscape Character Areas.

During construction there would be a loss of existing trees and hedgerows and a change to the existing agricultural land use. People's views would also be affected, including views of earthworks, construction vehicles and work associated with the installation of overbridges.

During the initial stages of operation, the Proposed Scheme carriageway, overbridge structures, junction lighting and general movement of vehicles along the highway would be visible. A planting plan, in combination with other specialist topic input (for example biodiversity and cultural heritage) has been designed to mitigate and enhance landscape and visual features of the Proposed Scheme. Once Proposed Scheme tree and hedgerow planting was established, the visibility of the Proposed Scheme and extent of associated landscape features would revert to a state comparable to that of the existing situation.

The assessment concluded that the Proposed Scheme would not result in a significant residual effect on landscape and visual amenity.





Biodiversity

There are valuable habitats and species of nature conservation importance that could be adversely affected by the Proposed Scheme. Avoidance of impacting trees and hedgerows was a key consideration throughout the design stage, however, there remains small areas of these habitats that will need to be lost.

The assessment considers all relevant designated ecological receptors within the agreed study area and the results of the ecological surveys have identified mitigation measures to safeguard the conservation status of wildlife populations through both the construction and operational phases.

Priority habitats, protected species and species of principal importance are also considered, including;

- botany
- badger
- bats
- breeding birds (including barn owl)
- wintering birds

- terrestrial and aquatic invertebrates
- great crested newts*
- fungi
- reptiles

Careful design in combination with mitigation measures during construction and operation will reduce identified effects of the Proposed Scheme on receptors and habitats. It is possible to compensate for the permanent loss of young trees within Lingwood Wood Community Woodland by replacement woodland planting. The residual effects on biodiversity are influenced by the time it takes for new and replanted habitats to mature.

Grasslands within the Proposed Scheme will have a beneficial effect as there will be a net gain of more biodiverse grasslands with the introduction of species-rich and marshy, wet grassland.

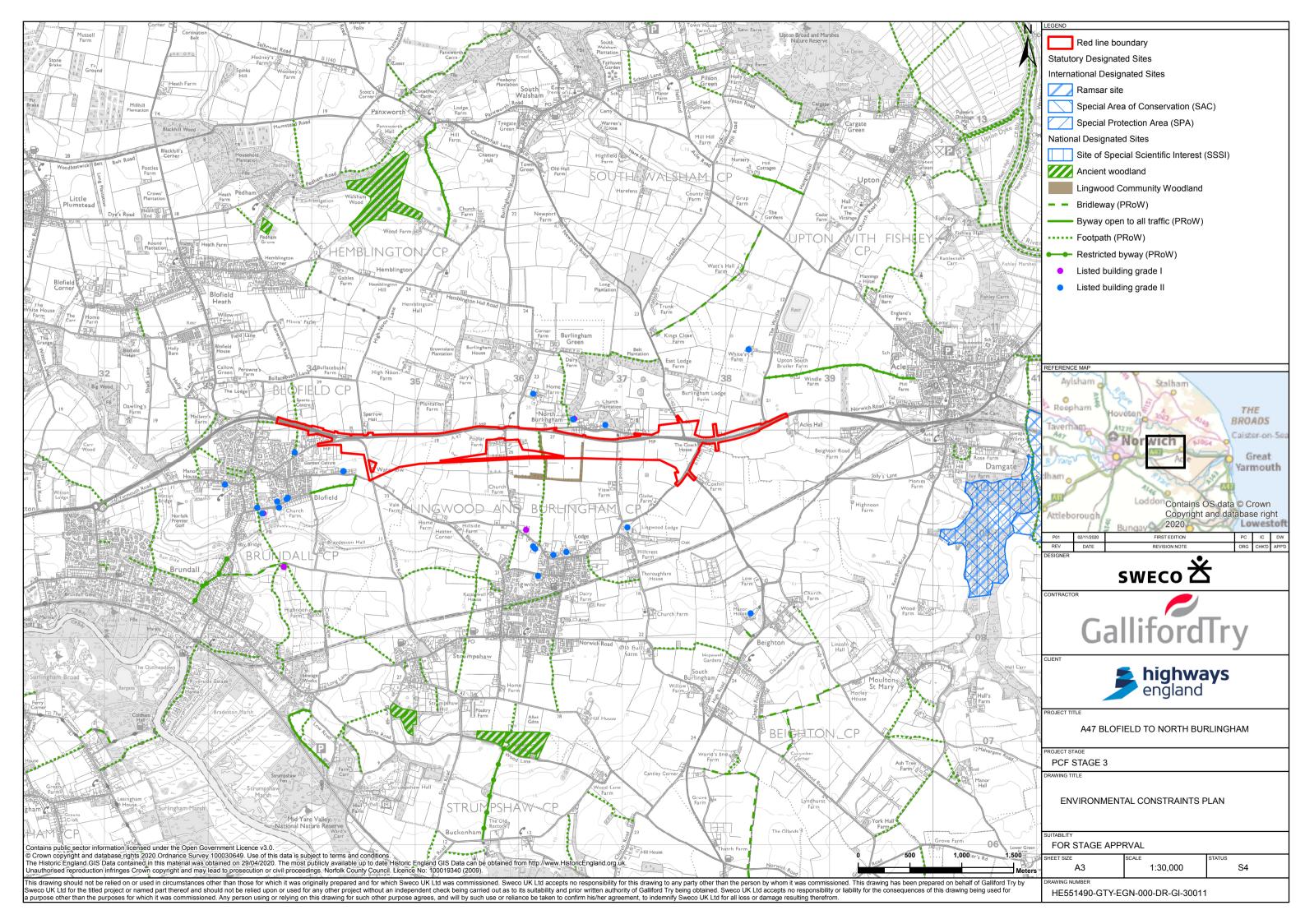
The risk to birds from road traffic collisions is not significant in EIA terms with the provision of safe crossing points (extra tall trees planted at the sides of the road at identified crossing points to keep them above traffic height). The risk to bats is however significant due to the presence of barbastelle bats, which are a European protected species and nationally important.

All other residual effects after mitigation are not considered significant.



A47 Blofield to Nort

* It was not possible to complete surveys due to COVID-19 restrictions during the survey window. These will be completed prior to construction.





Geology and Soils

No designated geological sites are located in the study area.

To the north and south of the proposed A47 dual carriageway the land is predominantly agricultural and much of this is used for arable production.

The Proposed Scheme would result in a significant effect on agricultural soils due to the amount of farmland required.

This impact was considered at the route selection stage.

Mitigation measures will be implemented during construction and controlled through the Soil Management Plan to ensure that where agricultural soils exist within any temporary construction areas, they are protected and restored to their previous condition.

Material Assets & Waste Noise and Vibration

The potential impacts of the Proposed Scheme from the use of material resources and generation of waste are assessed against the baseline information on material assets (materials availability) and waste (landfill capacity) generated by the relevant authorities, based on predicted regional demand projections (including consideration for other significant projects within the east of England region).

Cumulative effects were also considered as the Proposed Scheme will be constructed concurrent to several other A47 Highways England highway developments.

Design, mitigation and enhancement measures will be implemented during construction and controlled through the Environmental Management Plan. Overall, the materials used are predicted to include over 40% of recycled material and over 85% of the material generated will be re-used or recycled. The residual effects will be slight adverse and not significant. Sensitive receptors, such as residential homes, near to the Proposed Scheme have been identified. Receptors that are close to the A47 are already exposed to relatively high noise levels due to road traffic.

Noise modelling was undertaken for all noise sensitive receptors within the study area. As part of the assessment, a baseline noise survey was undertaken in June 2018. The findings of the survey have been used to verify the noise modelling results.

A construction noise assessment has been undertaken. It is concluded that with the application of best practice construction methods, temporary noise barriers and noise monitoring, potential significant effects are unlikely.

An assessment of potential construction vibration impacts has been undertaken and concluded that with the application of best practice construction methods and vibration monitoring, the Proposed Scheme is unlikely



to give rise to any potential significant effects.

A construction traffic assessment has been undertaken. It is concluded that, providing the anticipated vehicle movements and routes are restricted as described, potential significant effects are unlikely.

The assessment of operational noise indicates that significant beneficial and adverse effects are likely due to the Proposed Scheme.

Significant beneficial noise effects are predicted at seventeen residential receptors along Strumpshaw Road (Brundall), Stone Road and Wood Lane. These are due to the expected change in road user behaviour (traffic re-routeing) brought about by the Proposed Scheme.

Noise barriers at four locations and low noise surfacing for the new length of A47 carriageway have been incorporated as part of the Proposed Scheme design to mitigate against adverse effects from the new roads.

Significant adverse noise effects are predicted, again due to traffic re-routeing, at:

eighteen dwellings on the B1140 (High Road) between the Cock Tavern and the junction with Sandy Lane; and at thirtyseven dwellings on Yarmouth Road between the junction with the A47 and the crossroads with Doctors Road / Danesbower Lane.

Despite the significant adverse noise effects predicted in the vicinity of Yarmouth Road and B1140 High Road, the absolute road traffic noise level at opening year will be comparable to local B roads in the vicinity in and around Blofield.



Population and Human Health

The main communities located by the Proposed Scheme include Blofield, Burlingham and Acle. There are scattered properties along the length of the Proposed Scheme. The majority of the community facilities are located in Blofield.

The area surrounding the Proposed Scheme is predominantly arable with some scattered areas of woodland used by the community. Paths are located predominately to the west and the centre of the Proposed Scheme. The paths serve walkers and cyclists, with no evidence of horse riding.

During construction, access along the local road network for local residents and businesses across the study area may be temporarily disrupted whilst traffic management measures are in place. This may result in longer journey times and a degree of temporary severance between communities, businesses and their facilities.



Land would be required temporarily from the edge of four properties on Yarmouth Road.

Walkers, cyclists and horse-riders (WCH) would also experience temporary diversions of footpaths, with some increases in journey length. Construction activities are predicted to result in some adverse amenity effects for human health, specifically in terms of noise, dust and visual intrusion. The contractor will be required to put in place mitigation measures to minimise these effects. Some adverse temporary effects are likely to still occur to the health of local residents during the construction of the Proposed Scheme.

During construction, the Proposed Scheme would result in the temporary loss of agricultural holdings and these are likely to experience disruption to farming operations. In some cases, access to farm yards and fields would be temporarily severed.

Users of one footpath (Burlingham FP3) are anticipated to experience significant residual adverse effects as a result of a section of the footpath being lost.

A new public right of way is included in the design south of the proposed A47 mainline

running east to west. This footpath would provide a new route from Blofield to the B1140 junction and connects with multiple existing north / south permissive routes and Burlingham footpath FP3.

A combined footway / cycleway would be provided along a section of detrunked A47, to improve connectivity between Blofield and North Burlingham for pedestrians and cyclists. A new crossing of the Proposed Scheme would be facilitated by the Blofield Overbridge, which would connect to WCH routes.

Permanent effects which occur during construction would result in changes in severance for private property and housing, community land, community facilities, development land and businesses in the communities of Blofield with South Walsham, Burlingham and Acle. Access to some private properties and businesses would change as a result of the Proposed Scheme, however none of these changes are considered to be significant.

Permanent land-take is required from the allotment gardens car park in Blofield,

however alternative parking would be provided as part of the Proposed Scheme.

Permanent land take of agricultural land is required. This would result in a reduction in turnover, profitability, and in some cases, viability of affected agricultural holdings.

No significant effects on human health are anticipated as a result of the Proposed Scheme.



Road Drainage and the Water Environment

The key surface water receptors within the study area are local minor watercourses, drainage ditches and ponds, these are within the Witton Run and Bure (Horstead Mill to St Benet's Abbey) Water Framework Directive water body catchment and the Bure Operational Catchment. Key groundwater receptors are the Broadland Rivers Chalk and Crag groundwater body, secondary superficial aquifers, local licensed and unlicensed abstractions within the study area and groundwater dependent terrestrial ecosystems located beyond the study area.

The new carriageway will discharge surface water to an infiltration basin and trenches, designed to attenuate a 1 in 100-year storm event (plus a 20% climate change allowance) in line with DMRB guidance. Water levels will not exceed ground levels of the infiltration trenches or the capacity of the infiltration basin for the 1 in 100-year including a 40% climate change allowance. The Proposed Scheme design incorporates treatment of road drainage prior to discharge to groundwater. This includes:

- the containment of sediments and pollutants to mitigate against the potential impact on groundwater quality from routine runoff
- outfall shut-off valves to mitigate against any accidental spillages from reaching groundwater

Flood flow pathways that are intercepted by the Proposed Scheme will be maintained to allow natural overland drainage through the construction of 'dry culverts' or cross-drains designed to a 1 in 100-year event, plus 65% climate change allowance in line with National Planning Policy Guidance.

Where a direct connection to existing surface water pathways was not possible, clean water soakaways, designed to accommodate a 1 in 10-year flow plus 20% climate change allowance, have been proposed in order to dissipate surface water overland flows. Any exceedance will be directed towards existing overland flow pathways at a lower rate and volume due to the attenuation provided. Where surface water pathways are diverted away from the existing catchment by the Proposed Scheme, flood flows are attenuated to avoid impact to downstream flood receptors.

Mitigation, in the form of a replacement pond, is required for the loss of the pond near to Lingwood Road.

Below-ground structures, such as foundations, shall be designed to not impede groundwater flow.

No significant adverse effects on the water environment are predicted during construction or operation of the Proposed Scheme, subject to the mitigation measures included in the Environmental Management Plan and the Proposed Scheme design.



Climate

This assessment considers the Proposed Scheme's effect on climate (i.e. increases in carbon emissions) as well as the potential vulnerability of the Proposed Scheme to climate change (i.e. resilience to projected changes in climate).

An assessment using the Highways England Carbon Tool (v2.3) has been carried out as part of the development of the Proposed Scheme. This has allowed for the consideration of carbon in the design process, resulting in the development of a carbon baseline from which further reductions may be made.

The construction, operation and use of the Proposed Scheme is predicted to increase carbon emissions by approximately 159,102 tonnes carbon dioxide equivalent (tCO₂e) over the appraisal period of 60 years (up to 2085).

As per DMRB guidance, Proposed Scheme carbon emissions have been compared with the Government's published UK carbon budgets. These budgets currently account for UK emissions to 2032, representing 31% of the Proposed Scheme appraisal period. The remaining increase in emissions anticipated during the appraisal period from 2032 to 2085 have no carbon budget for comparison.

Guidance on gauging the significance of carbon emissions in EIA is evolving. Design Manual for Roads and Bridges (DMRB) Guidance LA 114 (2019) states that assessments on climate should report significant effects where increases in emissions will have a material impact on the ability of Government to meet its carbon reduction targets.

As carbon budgets do not exist for the majority of the appraisal period, a definitive assessment of materiality is not possible, however DMRB guidance also requires all projects to minimise carbon emissions. For the Proposed Scheme, the selection of a two-span bridge option for both overbridges resulted in carbon savings associated with reduced earthworks and structural material quantities. The use of the Highways England Carbon Tool to monitor and manage carbon will continue throughout the construction period to ensure an ongoing focus on climate change mitigation.

The vulnerability of the Proposed Scheme to projected changes in climate during operation has been assessed, and the Proposed Scheme has been deemed resilient to the current projections provided by the Met Office. Therefore, no significant effects as a result of climate change are anticipated; however, this should be reviewed at an appropriate stage once updated projections are published.





Cumulative Effects Assessment

The cumulative effects assessment considers effects from:

- a single project (the Proposed Scheme), having numerous different effects on a single receptor
- different projects acting in combination with the Proposed Scheme.

Single project effects

Six receptors or groups of receptors have been identified as experiencing multiple effects a result of the Proposed Scheme:

Adverse effects:

- Properties at Yarmouth Road
- Poplar Farm
- Lingwood Road
- Lingwood Community Woodland
- Lingwood Lane

Beneficial effects:

North Burlingham

A combination of proposed mitigation for the relevant topics, best standard practice construction and community liaison would likely help to mitigate the cumulative impact of the effects from the Proposed Scheme.

Different project effects

There are no identified projects within the study area anticipated to result in significant cumulative effects with the Proposed Scheme and, therefore, no additional mitigation is proposed.

Consultation

Highways England ran a public consultation period from 13 March to 21 April 2017. A variety of methods of engagement were used to gain feedback from stakeholders. A brochure and questionnaire were used to inform people of the scheme proposals, provide a map of constraints around the local area and provide contact details for Highways England. The consultation was also advertised on the Highways England website and a press notice was also issued on the 15 March 2017. Invites were also given to local MPs, local councillors and other key stakeholders to attend a preview of the exhibition.

A six week statutory consultation period was held from 10 September to 19 October 2018. The 40-calendar day consultation period was more than the 28 days prescribed by Section 45(2) of the Planning Act 2008. The purpose of the consultation was to provide an opportunity to comment on the updated plans for the project ahead of Highways England submitting an application to the Planning Inspectorate for a Development Consent Order (DCO).



How to find out more

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

Visit our website at <u>http://highwaysengland.co.uk/projects/a47-blofield-to-north-burlingham/</u>

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

- our statement of Community
 Consultation
- the consultation brochure and feedback form
- the Proposed Scheme, including the red line boundary that will form part of our DCO application
- a Preliminary Environmental Information Report, as well as this accompanying Non-Technical Summary

Email us: a47blofieldtonorthburlinghamris@highways england.co.uk

Phone us: 0300 123 5000

Next steps

Following submission of the Application for Development Consent, the Planning Inspectorate will consider, on behalf of the Secretary of State for Transport, whether the Application should be accepted for examination. If accepted, the documents accompanying the Application will be publicly available on the Planning Inspectorate's website.

Interested parties will be able to make relevant representations about the Proposed Scheme and its potential impacts. Representations received by the Planning Inspectorate will be considered as part of the examination into the Application.