highways england

A1 in Northumberland
Morpeth to Felton scheme

Preliminary environmental information report
Non technical summary

Volume 1 - June 2018

INTRODUCTION

This document provides a Non-Technical Summary (NTS) of the Preliminary Environmental Information Report (PEIR) for the A1 in Northumberland: Morpeth to Felton Scheme (the scheme). The PEIR can be found on the Highways England scheme webpage: https://highwaysengland.co.uk/projects/morpeth-to-ellingham-dualling/.

Highways England proposes to improve the A1 between Morpeth and Felton in Northumberland by upgrading the existing road from single carriageway (one lane in each direction) to a dual-carriageway (two lanes in each direction). The scheme would improve journey times, increase safety and promote future economic growth whilst seeking to protect and enhance the environment.

The scheme is a "Nationally Significant Infrastructure Project" under the Planning Act 2008, which means that an application will need to be made to the Planning Inspectorate (PINS) for permission to build and operate the scheme. This permission is called a Development Consent Order (DCO).

Before an application for a DCO is submitted, the local community and other stakeholders must be formally consulted on the proposal. This consultation must include a description of the scheme, the likely significant environmental effects based on the preliminary environmental information available at the time, the measures proposed to avoid or reduce such effects and the alternatives that have been considered. This is to support consultees in developing an informed view of the likely significant environmental effects of the scheme.

As well as carrying out our consultation we are continuing to gather environmental information, identifying the potential impacts of the scheme and developing measures to avoid, reduce or mitigate adverse impacts. This process is known as an Environmental Impact Assessment (EIA), which is required by the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations). The findings of the EIA will be reported in an Environmental Statement (ES).

While the EIA is ongoing, the PEIR has been developed for the consultation and describes the current environmental conditions and anticipated impacts of the scheme on the environment. This NTS provides a summary of the PEIR in non-technical language.

The information in the PEIR is preliminary and the findings will be developed further in the ES to show the progression of the scheme design which will be informed by the feedback from the consultation and the ongoing EIA. The ES will present the full results from the EIA and will be submitted with the DCO application.

THE SCHEME

SURROUNDING ENVIRONMENT

The scheme is located in Northumberland, north of Newcastle-upon-Tyne, on the north-east coast of England. Northumberland County Council (NCC) is the local authority for the area. The scheme would be mainly located within open rural countryside, with the existing A1 running next to agricultural fields and near woodlands. Morpeth and Felton are the main communities near the scheme, with other smaller villages and hamlets in the area including Hebron, Fenrother, Tritlington, Espley and Earsdon.

The northern end of the scheme crosses the River Coquet which is a Site of Special Scientific Interest (SSSI), Coquet River Felton Park Local Wildlife Site (LWS) and Dukes Bank Ancient Woodland. The scheme also crosses the Longdike Burn River as well as other watercourses. The scheme lies within flood risk areas and there are a number of Listed Buildings close to the scheme.

DESCRIPTION OF THE SCHEME

The scheme would be approximately 8 miles (12.6 km) in length, starting from Warrener's House Interchange, where the A1 meets the A697 at Morpeth, to where the existing dual-carriageway section of the A1 west of Felton commences. The key features of the scheme are as follows:

- Between Morpeth and Priests Bridge, the scheme would widen the existing A1 by constructing the new northbound carriageway parallel to the west of the existing A1. The existing A1 would then become the southbound carriageway.
- Continuing north from Priests Bridge, the scheme would move west from the existing A1, by constructing approximately 6.1 km of new dual-carriageway. This new section would pass to the west of Earsdon Moor, east of Fenrother and Causey Park and meet the A1, adjacent to Burgham Park on the west and Felmoor Park on the east. The bypassed section of the A1 (referred to as the 'de-trunked section') would remain open, but would cease to be a trunk road and would be a local access road (de-trunked means that this section of road would be owned and maintained by Northumberland County Council.
- At Burgham Park to the north end of the scheme, the existing A1 would be widened by constructing the new carriageways parallel to the existing carriageways.
- A second road bridge would be constructed over the River Coquet next to the existing road bridge at the eastern side. The existing bridge would carry northbound traffic and the new bridge would carry southbound traffic. The new bridge would be a separate structure from the existing bridge.
- Three new junctions at Highlaws, Fenrother and West Moor would be constructed, and would be at a different height to the main carriageways so as to not disrupt the flow of traffic. Two new bridges at Causey Park and at Longhorsley would also be constructed to allow access to local roads.
- To allow the construction of the scheme, a high-pressure gas main underground pipeline near Causey Park needs to be diverted. For this diversion to take place, an overhead electricity line and a gas pipeline are also likely to be diverted.
- The scheme would include a new surface water drainage system. There are eight culverts (structures that allow water to flow under a road) along the scheme, three of which would be new.

- Existing traffic signage and technology would be used unless it does not meet current standards, in which case it would be replaced or decommissioned. No new lighting is proposed as part of the scheme.
- The scheme would require some temporary compounds during construction, for example for site offices, to carry out temporary works and to store material.
- The scheme would comprise some demolition works, including the demolition of North Gate House.
- If the application is approved, works would start on the scheme in 2020 with the scheme anticipated to be open to traffic in 2023.

THE APPLICANT

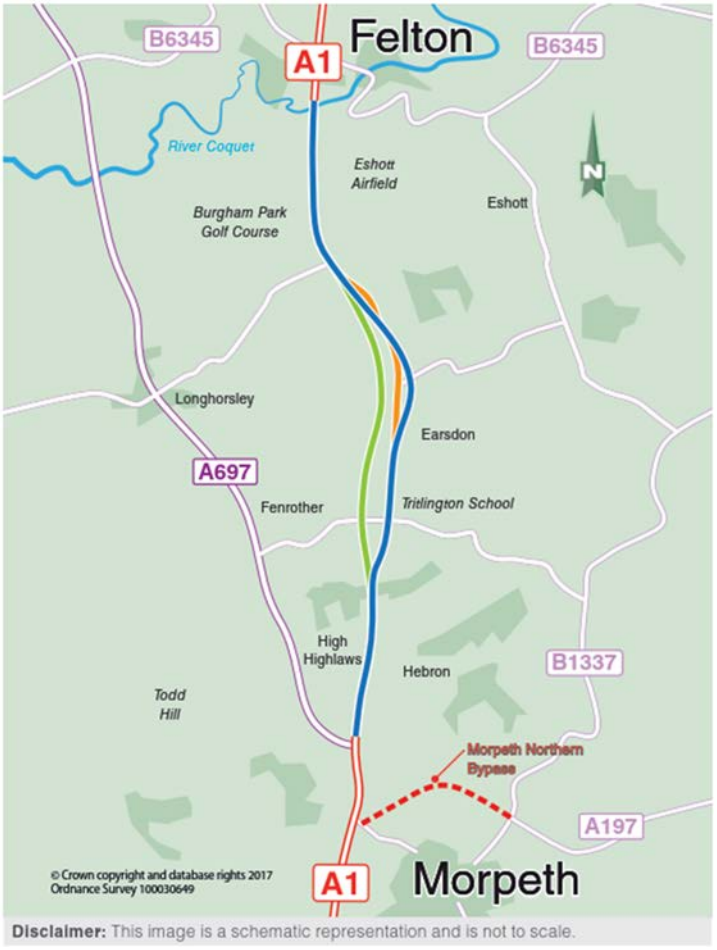
Highways England is the Applicant and the Strategic Highways Company as set out in the Infrastructure Act 2015, and is charged with modernising and maintaining England's Strategic road network, as well as running the network and keeping traffic moving.

ALTERNATIVES

Extensive studies, technical consultation and assessment have been undertaken to shape the proposals for the scheme. The process of options identification and route selection leading to the scheme is set out in Section 3 of the PEIR.

In summary, the process included the following steps:

- Identification and initial assessment of potential route options.
- Development of route options, with early public engagement in May 2016.
- Three route options were considered through informal public consultation in November 2016, as shown on the image below.
- The selection of the scheme's Preferred Route, which was publically announced by the Secretary of State for Transport on 5 September 2017.



The ‘Green Option’ was announced as the Preferred Route because it:

- Was the most popular option chosen by the public.
- Offers a greater level of safety due to the alignment and the retention of the A1 as a less busy route for local access.
- Presents the greatest benefits during construction, in terms of building efficiency and worker safety, as the majority of the improvement is constructed away from the existing road.
- Offers a local road where the new section of the scheme moves away, offering an alternative route should closures be required, and also providing a north-south route for local traffic.
- Gives the best shape and arrangement which complies with highway design standards.
- Affects fewer landowners, although more agricultural land is needed.

THE ENVIRONMENTAL IMPACT ASSESSMENT

Under the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, the scheme is defined as the type and scale of development that automatically requires an EIA. An EIA is therefore being undertaken to meet the requirements of the relevant planning policy and legislation to consider the effects of the construction and operation of the scheme on the environment. These have been taken into account when preparing the PEIR.

An EIA Scoping Report was submitted to PINS on 25 January 2018, which set out the proposed scope and level of assessment to be undertaken in the EIA. The subsequent statutory Scoping Opinion from PINS was received on 7 March 2018, which provided comments and recommendations on the EIA.

The EIA considers impacts during construction and operation of the scheme. The assessment addresses both temporary and permanent effects likely to occur while the scheme is being built, and the operational assessment considers the likely permanent effects when the scheme is completed and open to traffic. Where relevant these temporary and permanent effects are set out separately in this Non-Technical Summary. In addition, a summary of the existing conditions within and around the scheme (known as the 'baseline') is presented.

During construction, most of the scheme's potential impacts would be avoided or mitigated through industry standard practices and measures. These will be set out in a Construction Environmental Management Plan (CEMP) which will be submitted in draft with the DCO application.

The EIA will be undertaken in line with the Design Manual for Roads and Bridges known as DMRB, the EIA Regulations and additional best practice guidance where appropriate.

AIR QUALITY

BASELINE

There are no Air Quality Management Areas (AQMAs) within 20 km of the scheme. AQMAs are areas which the local authority has identified as requiring management to address air quality concerns. None of NCC's air quality monitoring locations, the closest of which is approximately 3.8 km southwest of the scheme at Morpeth, have reported any exceedance of their relevant objectives in the last five years. Air quality data held by the Department for Environment, Food and Rural Affairs (Defra) also indicates that background pollution is below the relevant national objective limits.

Notwithstanding the above, Highways England have also carried out Air Quality monitoring in and around the scheme. This confirmed that air quality does not exceed national objectives.

CONSTRUCTION

Without mitigation, construction of the scheme would temporarily adversely impact air quality as a result of dust from construction activities such as earth moving and excavations, and emissions from construction traffic and equipment / machinery. In addition, traffic management measures may result in both beneficial and adverse changes to emissions from vehicle exhausts.

Mitigation measures in the CEMP would include the control of dust and emissions from the construction works, traffic and construction equipment. For example, measures may include dampening down of surfaces to reduce dust, road sweeping and good management of stored materials.

Preliminary Construction Assessment

With the implementation of the above mitigation measures, no significant effects are anticipated.

OPERATION

Without mitigation, during operation, there could be both positive and adverse impacts on air quality as a result of changes in vehicle flows along the scheme and the wider road network. Better air quality is expected where traffic moves away from the de-trunked section of the scheme, and an increase in pollutants is anticipated along the new section of the scheme. In addition, increased road traffic may lead to increased levels of nitrogen being deposited on nearby sensitive designated ecological sites such as the River Coquet and Coquet Valley Woodlands Site of Special Scientific Interest (SSSI).

Preliminary Operational Assessment

With the implementation of the above mitigation measures, no significant effects are anticipated.

NOISE AND VIBRATION

BASELINE

The area is predominantly rural. Noise and vibration levels are therefore relatively low, and are dominated by the A1 and other roads in the area. Some noise can be heard from Eshott Airfield. The existing A1 passes close to residential properties, schools and cultural heritage features. In addition, two 'Noise Important Areas' lie near the scheme (areas identified as being most exposed to noise).

CONSTRUCTION

Without mitigation, some construction activities such as piling and demolition, together with construction traffic, may cause temporarily increased levels of noise and vibration. Should any night-working be required, further adverse noise impacts would be likely.

Measures within the CEMP will aim to reduce noise and vibration, and could include selection of quiet and low vibration equipment, appropriate timing of works and measurement of noise levels at sensitive locations.

Preliminary Construction Assessment

With the implementation of the above mitigation measures, no significant noise and vibration effects are anticipated.

OPERATION

Without mitigation, during operation, increased noise levels could be generated by the likely increase of road traffic along the scheme, particularly as a result of a new noise source from road traffic along the new section of the scheme. This may affect, for example, properties and heritage features close to the scheme. These could include Causey Park Hag, New Houses Farm, the Bungalow, Causey Park Bridge and Tindale Hill. However, there could also be reduced noise levels for example for properties and heritage features that are next to the de-trunked section of the A1, with traffic using the new section of the scheme instead. These could include Priestbridge House, Earsdon Cottage, The Helm, Causey Park Lodge, Portland House and Wellbeck House, The Old School House and West View.

Noise reduction measures would include low-noise road surfacing where possible, and screening by the use of noise barriers or earth mounds at locations where significant effects are predicted.

Preliminary Operational Assessment

With the implementation of the above mitigation and design measures, no significant noise and vibration effects are anticipated.

LANDSCAPE AND VISUAL

BASELINE

The surrounding landscape is generally open with arable and pasture farmland, enclosed by hedgerows (some tree-lined and some stone walls) and crossed by the A1 from Newcastle to Berwick and the A697 to Coldstream which are the county's two major roads. There are numerous small areas of woodland, some of which are designated as Ancient Woodland. Rows of individual trees (over 300 trees up to 80 years old) are present along sections of the A1, known as Coronation Avenue. These trees were originally planted in 1937 to celebrate the coronation of George VI, and extended southwards to near Morpeth to commemorate the coronation of Elizabeth II in 1953. There are also several watercourses within scheme area, the most prominent of which are the River Coquet and the River Lyne.

There is a dense network of minor roads and Public Rights of Way (PRoW) connecting the hamlets and scattered communities.

The scheme crosses areas designated through local planning policy as 'High Landscape Value' and the southern area of the scheme passes through an area of Green Belt.

Locations with views of the scheme have been identified, and include residential, recreational, transport and community and commercial assets and are broadly present throughout the length of the scheme.

CONSTRUCTION AND OPERATION

Without mitigation, potential landscape impacts during construction would include the loss of features such as hedges, trees and woodlands, including Ancient Woodland and partial loss of Coronation Avenue trees, and temporary changes in the landscape (for example from construction compounds and spoil heaps). In addition, there could be temporary adverse impacts upon views for users of PRoW, community facilities, commercial and residential properties, due to the presence of construction compounds, large machinery and vehicles, artificial lighting and material storage and loss of trees and vegetation opening up views.

Without mitigation, once the scheme is operational, potential adverse impacts upon the landscape and upon views would be generated by the new section of the scheme. This would introduce a new large linear feature and light pollution from vehicles within a rural setting. In addition, the widening of the A1 would increase its prominence in the landscape. However, benefits would be realised in the area of the de-trunked section of the A1 (for example for residents directly next to the road and Tritlington Church of England (C of E) Aided First School), where a reduction in traffic would improve the tranquillity of the area.

Mitigation measures could include minimising vegetation loss and replacement planting of native species. Trees would be planted to replace the loss of Coronation Avenue trees. As Ancient Woodland is an irreplaceable resource of great importance for its wildlife and landscape value, a plan to address the loss will be discussed with Natural England.

Preliminary Construction and Operation Assessment

With the implementation of the above mitigation and enhancement measures, the scheme is anticipated to have significant effects upon the landscape in relation to the loss of Ancient Woodland, the partial loss of the Coronation Avenue trees, and due to the introduction of three new split-level junctions and a new section of road.

Significant adverse effects are anticipated on views from some residential properties in Northgate, Fenrother and along the offline section of the scheme. In addition, a number of PRoW could experience significant effects with the presence of the scheme. Views from residential properties along the de-trunked A1 and Tritlington C of E Aided First School may experience potential beneficial impacts given the anticipated reduced level of traffic. These potential impacts would be worse during the construction phase and would lessen over time as mitigation planting matures.

CULTURAL HERITAGE

BASELINE

There are 65 Historic Buildings, 10 Historic Landscape Types and one Scheduled Monument (Felton Old Bridge) all within 1 km of the scheme. There are also two conservation areas known as Felton Conservation Area and West Thirston Conservation Area within 1 km of the scheme. In addition there are known buried archaeological remains, and potential unknown remains.

CONSTRUCTION

Without mitigation, construction activities are likely to permanently adversely impact designated and non-designated heritage assets, both above and below ground. In addition, a Grade II listed milepost, located on the grass verge east of the A1 at Low Espley, would be removed. Construction activities could also lead to temporary adverse impacts on the setting of a number of heritage assets and historic landscape through visual intrusion and noise. There is potential for the loss of locally important field boundaries which are part of the historic landscape of Northumberland.

Best practice measures to manage works around cultural heritage assets will be set out in a CEMP. A programme of further archaeological investigation would be implemented based on a survey currently being carried out to determine the presence and potential impact upon known archaeological remains. Any historically important hedgerows would be identified and appropriate consent would be obtained from NCC if they are to be impacted. Potential impacts upon the setting of historic assets and the historic landscape would be avoided through design, and where not practicable, screening (for example planting) considered. The Grade II listed milepost to be removed would be photographically recorded, carefully removed for the construction duration and reinstated as close as possible to its original location upon completion of the works. If any unknown archaeological assets are encountered during construction, impacts will be reduced either by firstly leaving the asset in place wherever possible, or by photographic record and removal in agreement with NCC.

Preliminary Construction Assessment

With the implementation the above mitigation measures, significant adverse effects are anticipated as a result of indirect and direct impacts on the setting of designated heritage assets and historic landscapes, and also associated with the potential removal of the Grade II Listed Milepost. In addition, direct significant adverse effects on above or below-ground archaeology are anticipated.

OPERATION

Without mitigation, once the scheme is in operation, the setting of the identified historic buildings, landscapes and potentially some archaeological remains are likely to be adversely impacted due to visual intrusion from the scheme and noise from increased traffic. There is also the potential for adverse impacts upon buried archaeological remains and built heritage assets through changes in surface and groundwater flows resulting from a change in drainage and water levels in and around the scheme.

Where possible, potential impacts upon the setting of heritage assets would be mitigated through avoidance or changes in design, such as changing the location of scheme features

to avoid known assets. Where this is not practicable, screening such as landscape planting or noise barriers would be considered.

Preliminary Operational Assessment

With the implementation of the above mitigation and design measures, significant effects are anticipated as a result of direct and indirect impacts on the setting of designated and non-designated heritage assets and historic landscapes.

BIODIVERSITY

BASELINE

There are several important designated sites in the vicinity of the scheme. These include the River Coquet and Coquet Valley Woodlands Site of Special Scientific Interest (SSSI), Coquet River Felton Park Local Wildlife Site (LWS) and Dukes Bank Ancient Woodland, which are crossed by the scheme. In addition, there are a number of other important designated sites for ecology within 2 km of the scheme.

The area within and surrounding the scheme comprises various important habitat types including woodland, hedge and scrub. In addition there is the presence of, or potential for, a number of protected and notable species including badger, bats, birds, barn owl, great crested newts, otter, water vole, invertebrates, various fish species, brown hare and red squirrel.

CONSTRUCTION

Without mitigation, potential adverse impacts during construction may include direct habitat loss, fragmentation, damage and loss of species and habitats (including loss of Ancient Woodland, SSSI, the LWS and other habitats). Protected and notable species, and their habitats, could experience disturbance or direct adverse impacts through habitat severance or fragmentation, accidental death or injury and increased levels of noise, light and dust pollution. Construction activities may also disrupt local watercourses and drainage patterns, which could reduce water quality within nearby watercourses. Invasive species could also be spread.

Scheme design considerations, together with mitigation and enhancement measures, could include habitat replacement and enhancement, planting of native species and working method statements to address potential impacts on species. The CEMP will include measures such as careful programming of vegetation removal to avoid the bird breeding season and directional lighting. Compensatory habitat will be created so that the scheme does not result in an overall loss of habitats and associated species. In addition, a Salvage Plan will be developed to address the loss of Ancient Woodland, which may include soil translocation and native species planting.

Preliminary Construction Assessment

With the implementation of the above mitigation measures, significant effects are anticipated as a result of the loss of Ancient Woodland, and habitat loss associated with the SSSI and LWS.

OPERATION

Without mitigation, potential adverse impacts during operation are likely to include permanent severance of habitats, disturbance to species (for example bats, from increased light, noise and pollution levels), death of birds and mammals (including bats) through traffic collision, and polluted road runoff affecting the water environment, including the River Coquet SSSI, and roadside vegetation.

Preliminary Operational Assessment

With the implementation of the above mitigation measures (identified for the construction phase), significant effects are anticipated as a result of polluted road

runoff affecting the water environment and habitats including Ancient Woodland and River Coquet SSSI, Habitats of Principal Importance and other habitats.

The River Coquet and Coquet Valley Woodlands SSSI

ROAD DRAINAGE AND THE WATER ENVIRONMENT

BASELINE

The scheme crosses the River Coquet and Longdike Burn. The River Coquet has good ecological and chemical quality, while the Longdike Burn has good chemical quality and moderate ecological quality.

The scheme is underlain by limestone, sandstone, siltstone and mudstone, which contains groundwater. This bedrock is mainly designated as a 'Secondary A Aquifer' (rock that allows the storage and flow of groundwater and water supplies at a local level). The southern area of the scheme lies in an area where groundwater is protected to safeguard public water supply, called a 'Source Protection Zone'.

The majority of the scheme would be built in areas of low flood risk. However, there are some areas that have a higher risk of flooding along the scheme, particularly the areas near to watercourses.

CONSTRUCTION

Without mitigation, potential temporary impacts from construction may include increased sediment run-off and spillages which could cause pollution and risk of contamination to surface and groundwater features, potentially reducing their chemical and ecological quality. In addition, there could be temporary adverse changes to the physical characteristics of water features (for example their shape, content and boundary), and flood risk could be worsened (for example due to the presence of new structures).

The CEMP would incorporate measures to protect both surface and groundwater quality, and would include method statements for the proposed works, details of materials to be used, and an emergency response plan, for example covering the actions to be taken in the event of a spillage. In addition, a temporary surface water drainage strategy may be required to ensure that the flood risk is not increased during the construction period, together with temporary watercourse diversions.

Preliminary Construction Assessment

With the implementation of the above mitigation and design measures, no significant effects are anticipated.

OPERATION

Without mitigation, during operation, impacts may include polluted surface water runoff which could reach surface or groundwater features and adversely impact upon their quality. In addition, any watercourse diversions and changes to the existing drainage, could act as a permanent barrier to natural water flow and could increase the risk of flooding.

Design considerations, together with mitigation and enhancement measures, would be implemented. Such measures would likely include a robust surface water drainage system (which allows for the effects that climate change could generate such as increased flooding), sustainable drainage considerations and maintaining the overland flow of water. In addition, any works to existing features, such as culverts and watercourse diversions, would maintain (and improve where possible) existing storage capacity. Any loss of flood storage area would be replaced to ensure no increased risk of flooding.

With the implementation of the above mitigation and design measures, no significant effects are anticipated.

GEOLOGY AND SOILS

BASELINE

The underlying geology across the scheme is sandstone, siltstone, mudstone, shale, coal and fireclay. Overlaying deposits include alluvium (localised, soft, very sandy clay deposits adjacent to watercourses) and glaciofluvial deposits such as glacial till and glacial clay (deposits by waters from glaciers). There are also areas of historic fill material at shallow depths along the scheme, two areas of past coal workings at Causey Park Hag and adjacent to Eshott airfield, potential mine entries and the potential for buried unexploded bombs. Soils in the scheme area are associated with agricultural land.

A number of possible sources of contamination have been identified including the existing road network, past fuel stations, hazardous mine and ground gases, historical landfills and infilled ponds and quarries.

CONSTRUCTION

Without mitigation, potential impacts from construction include the permanent and temporary loss of agricultural land and reduced soil quality. In addition, human health could be adversely impacted through ground instability and disturbance of contaminated ground, mine gas and buried unexploded bombs. Furthermore, the release of contaminants to surface or groundwater could adversely impact water quality.

The CEMP would contain measures to mitigate the above risks, and a Materials Management Plan would be implemented to ensure construction materials are managed properly. Compliance with relevant guidance and legislation would also be ensured. In addition, a temporary drainage strategy would be implemented, and would include pollution control measures. A Soils Management Plan will also be produced, which will include measures to ensure careful management of the soil during construction. A Coal Mining Risk Assessment will be undertaken setting out any mitigation measures to stabilise the ground, if required.

Preliminary Construction Assessment

With the implementation of the above mitigation and design measures, no significant effects are anticipated. This is subject to the findings of the ground investigation works, which will provide detailed information about the ground beneath and around the scheme.

OPERATION

Without mitigation, during operation, vehicle spillages could adversely impact upon surface or groundwater resources through contamination and pollution. There could also be a risk of adverse impacts to human health from potential contamination on grass verges alongside the scheme.

Pollution control measures would be incorporated into the scheme design, including within the permanent drainage system.

Preliminary Operational Assessment

With the implementation of the above mitigation and design measures, no significant effects are anticipated, subject to the findings of the ground investigation.

PEOPLE AND COMMUNITIES

BASELINE

Morpeth and Felton are the largest communities near to the scheme, with smaller communities in the area including Westmoor, Helm, Earsdon, Fenrother, Hebron and Northgate. A number of residential properties, businesses and community and recreational facilities are located adjacent, or close to, the existing A1. The scheme would pass through agricultural fields.

A network of Public Rights of Way (PRoW) extends within and around the scheme, serving a wide range of users. Surveys noted the most popular PRoWs to be at Felmoor Park and north of the River Coquet. In addition to the PRoWs, there are footways along several sections of the existing A1.

Users of the existing A1 currently experience slight delays due to traffic congestion, which are more problematic along the minor roads that join the A1 due to drivers having to wait to join the carriageway.

CONSTRUCTION AND OPERATION

Without mitigation, construction activities may temporarily adversely impact the amenity value or pleasantness for people and communities around the scheme, including users of PRoW and recreational activities, due to disturbance from noise, dust and disruption to views. Properties could also experience disruption in access and amenity value, and North Gate House would be demolished. There may also be disruption to access and for those participating in recreational activities in the area, such as angling, and eight PRoW would be temporarily closed or diverted. In addition, the scheme could also result in the temporary loss of private land and temporarily or permanently sever or disrupt farm landholdings and impact the viability of the farm business. Benefits to the local economy may be realised through increased spending.

Without mitigation, once the scheme is operational, new access would be provided via the new junctions to some properties which would allow safer access. The de-trunked section of the A1 would separate long-distance traffic along the scheme from local traffic, therefore permanently making local journeys safer. There could also be both beneficial and adverse impacts, to the amenity of, and access to, recreational resources and some properties due to the presence of increased traffic and new structures. Some alterations to existing bus stops are proposed, including removal and addition.

Construction mitigation would include traffic management systems and diversions of routes, including PRoW, to maintain connectivity. Land required for temporary works would be reinstated upon completion and landowners would be compensated for any temporary or permanent land required. The CEMP would contain measures to reduce construction impacts relating to dust, light, noise and air quality, and to reduce potential impacts upon agricultural land. The scheme would seek to either retain or improve the existing access arrangements where possible. Replacements for bus stops to be lost will be incorporated into the design wherever appropriate.

Preliminary Construction and Operation Assessment

With the implementation of design considerations and mitigation and enhancement measures, likely significant effects are anticipated for motorised users during

construction (for example due to traffic management), users of PRoW, community facilities, recreational resources and local businesses (adverse and beneficial) as a result of changes in amenity and access, and agricultural landowners due to temporary and permanent land severance and disruption.

MATERIALS

BASELINE

Materials typically required for highway construction schemes are considered to be readily available. A review of waste, treatment and recycling facilities shows that there is likely to be capacity for any waste materials from the scheme.

CONSTRUCTION

Without mitigation, potential impacts during construction include the use of materials and the production of waste, for example from excavation and demolition. The effects of these impacts would be permanent depletion of natural resources and a reduction in landfill capacity. Beneficial effects would be realised where site waste can be re-used or recycled, and not sent to landfill.

The scheme design will seek to ensure efficient use of materials and also minimise waste. Mitigation during construction could include the re-use and re-cycling of materials where possible to minimise export and import of materials. In addition, a CEMP, Site Waste Management Plan, and Materials Management Plan would be implemented to identify, monitor and manage materials and waste on site. Waste would be diverted from landfill wherever possible.

Preliminary Construction Assessment

With the implementation of the above mitigation and design measures, no significant effects are anticipated.

OPERATION

During operation, permanent adverse impacts could result from minor amendments and changes to the scheme's assets such as signage, for example for maintenance.

Preliminary Operational Assessment

With the implementation of the above mitigation and design measures (identified for the construction phase), no significant effects are anticipated.

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