

Trans-Pennine Connectivity, Safety and Resilience Study

Study overview

Spring 2023



Foreword

National Highways is the government organisation that plans, designs, builds, operates and maintains England's motorways and major A-roads, known as the Strategic Road Network (SRN). This network connects England's major urban areas, provides access to geographically peripheral areas and major ports and airports, and enables cross-border connectivity across the United Kingdom.

The roads we manage play a critical role in enabling businesses to transport products and services, providing access to jobs and suppliers, and facilitating trade and investment across the country. In combination with local roads they also support journeys connecting people and places.

The Southern Pennines corridor connects Greater Manchester and Sheffield, two of the UK's largest metropolitan areas, and economic centres in the North, with a population of 2.8 million and 1.4 million, respectively. It also connects into the wider SRN network, used for journeys to the Liverpool City Region, Hull and the Humber, and further afield.

The section of the corridor between the end of the M67 in Mottram and M1 junctions 35a and 36 is impacted by a number of issues. These include challenging topography, congestion, delays, lack of resilience, severe accidents and weather-related incidents. Local communities are also impacted by poor air quality and noise, as well as the roads sometimes creating barriers through them.

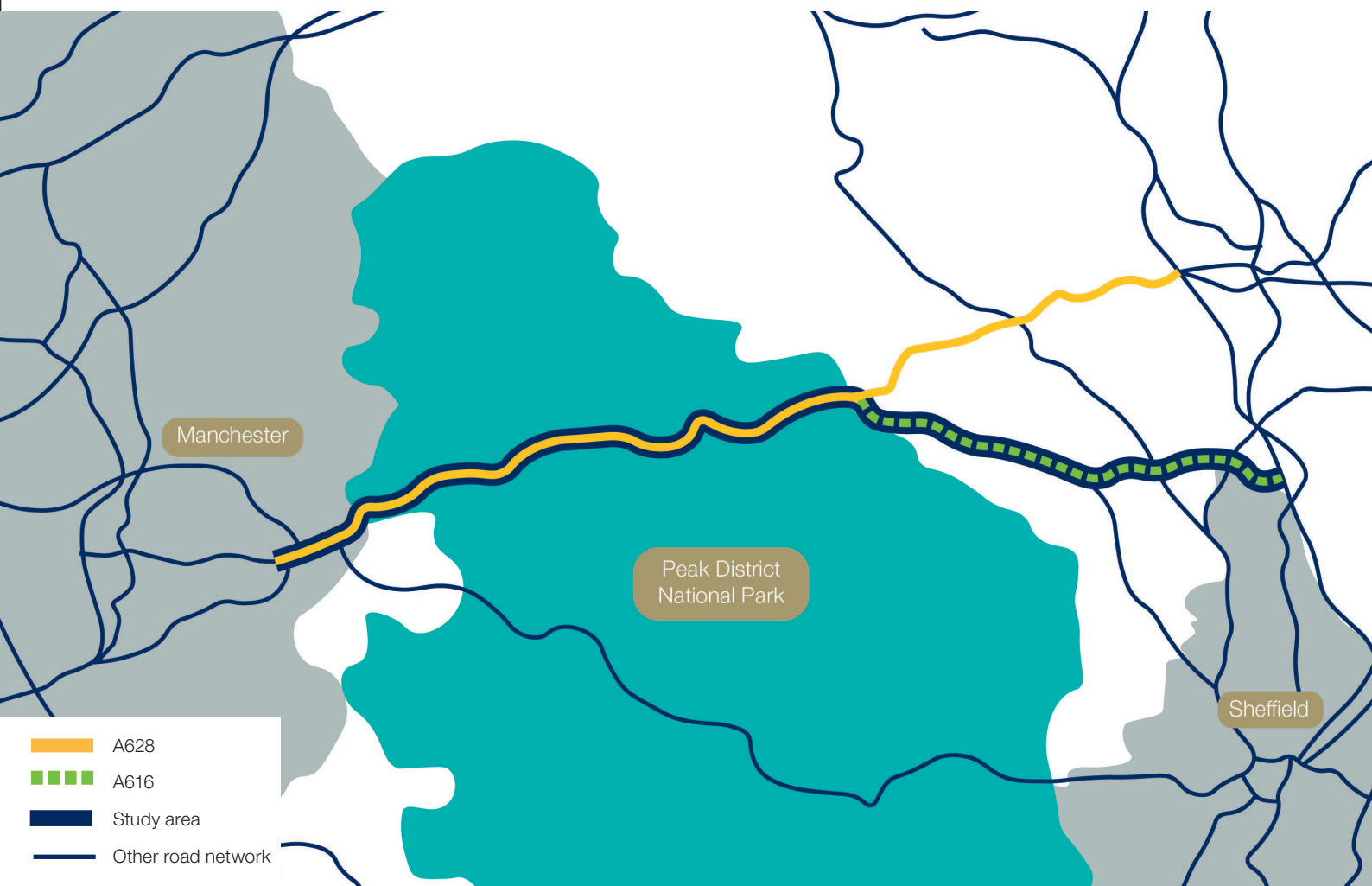
Previous studies have shown road connectivity between Sheffield and Manchester to be poor in comparison to other connections across the North. The distance between the two cities is around 40 miles (64 km) and journeys typically take one hour and 15 minutes, resulting in an average journey speed below 35mph (57 km/h). Studies to date have focused on improving road connectivity between Sheffield and Manchester via a tunnelled highway. These studies have established that while there is a strong strategic case for the tunnel option, the economic case is weak and the environmental impacts would be significant.



Our focus is now on a number of smaller-scale and standalone options. These will aim to alleviate the known issues on the worst performing sections of the route, with a greater focus on safety, resilience and reliability. We will build on previous studies, but take a broader view by considering active travel and public transport improvements in more detail. This will include consideration of proposed and potential improvements to Manchester - Sheffield rail services to help remove some traffic from the SRN on this route, although previous work has shown the effects are likely to be small.

As well as contributing to the economic growth, these improvements will benefit local communities along the route by providing safer, more resilient routes and better options for non-car modes of travel.

This study is being taken forward with our key study partners, Transport for the North (TfN) and the Department for Transport (DfT). We will also be working closely with wider partners and stakeholders to ensure we consider national, regional and local aspirations and objectives. We will therefore be seeking input from a range of organisations, including environmental bodies and the Peak District National Park, to help develop the new proposals.



Planning for the future

At National Highways, we have a vision for safer, more reliable and greener roads that use new technology, supports the country's economy and is an integrated part of the national transport network.

Our customers are at the centre of our long-term planning approach. We will work collaboratively with communities and partner organisations to achieve this vision, ensuring that we develop and operate the network our country needs to prosper in the decades to come.

The Trans-Pennine Connectivity, Safety and Resilience Study is a key part of this forward planning. We already have a robust understanding of the current performance of the road network and will use this to shape our future work.

Congestion and safety

The corridor performs poorly compared to other parts of the SRN. Journey times are inconsistent, there are delays due to high volumes of traffic and congestion, and travel times are long relative to distances travelled.

There are also frequent road closures due to adverse weather, and sections of the route have accident rates above the national average. The resulting diversions and closures worsen congestion, and impact communities in Hollingworth, Tintwistle and Mottram.

This is often made worse by a lack of alternative options to cross the Pennines. A diversion via the M62 can add over 45 miles to a journey, as well as adding more traffic to an already congested route.



Existing conditions

The mixed use and single carriageway nature of the existing road network means that road space is limited and overtaking is often not safe. The gradients and winding nature of the route result in blind corners and junctions.

There are a number of major walking and cycling routes in the area, including the Pennine Way and Trans-Pennine Trail which cross the road. Some of the quality of these crossings is particularly poor for cyclists, walkers, wheelers and horse riders.

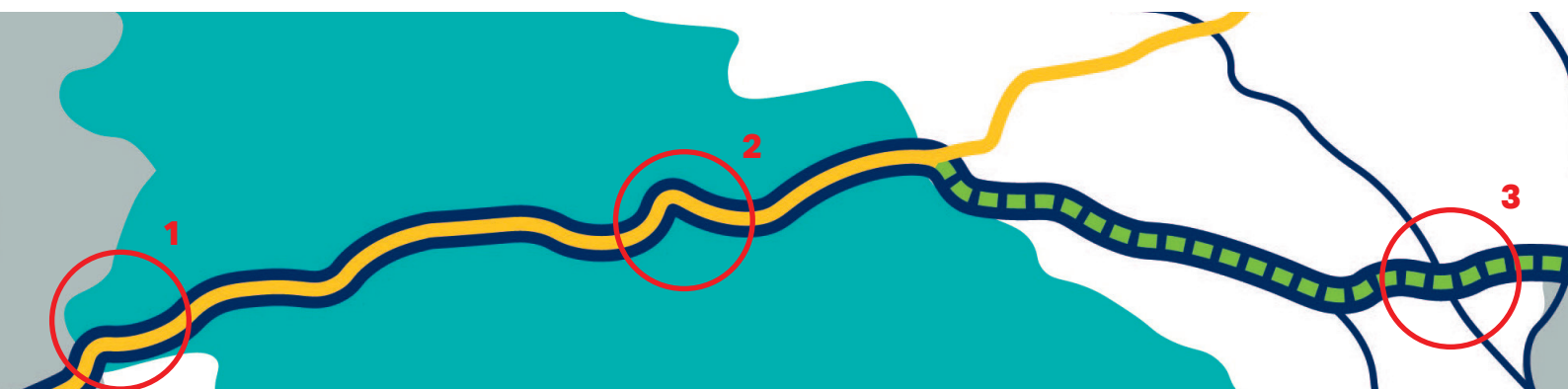
The challenging geography and natural topography of the Pennines adds to these issues, as the route is particularly susceptible to weather-related incidents. Roads along the corridor rise and fall with valleys, twist and turn alongside rivers and run along high and exposed ground; these roads frequently close due to snow, high winds or flooding.

Environment

There are issues with air quality and noise along the corridor, with Heavy Goods Vehicles (HGVs) moving slowly along sections with steep gradients. The natural environment, including the Peak District National Park, also suffers from the noise and visual impacts of the vehicles using the route.

Community severance

The route passes through a number of communities, including Hollingworth, Tintwistle and Mottram. It creates a barrier for residents, limiting their ability and desire to travel for leisure, work or to access essential services. It is a physical barrier (e.g. for walkers and cyclists), and can discourage people from making journeys due to a lack of reliability, convenience and safety.



Images showing the topography of the A626/A616



The story so far

The current study forms part of an evolution of work on the Trans-Pennine Corridor, which has been developed in partnership with key partners and stakeholders.

It follows on from a number of studies that sought to assess the possibility of a new strategic, tunnelled highway route connecting Sheffield and Manchester, aiming to reduce road journey times and improve journey time reliability. The overall aim was that achieving these two goals would support productivity improvements, business investment and enhanced economic growth in the two city regions and wider South Pennines corridor.

The key focus of the previous studies was to consider several options for a Trans-Pennine tunnel, with the potential to deliver improvements without the need for construction work within the Peak District National Park.

Although the strategic case for a tunnel was strong, the significant delivery costs meant that none of the potential solutions were affordable. In addition to this, the tunnel would not avoid impacts on the Peak District National Park, with a risk of significant environmental harm. Therefore, the studies have concluded that a tunnelled solution should not be progressed.

Improvements delivered to date

Despite the tunnelled solution not being progressed, a number of improvements have been delivered in the area, including enhanced technology and maintenance along the A628 and upgrades to the A61 Westwood roundabout, resulting in real upgrades and improvements to the network. National Highways is also awaiting the outcome of a Development Consent Order application to build two new link roads to create a bypass of Mottram in Longdendale.



The study

The Trans-Pennine Connectivity, Safety and Resilience Study will explore alternative options to improve known issues with the Southern Pennines corridor between the end of the M67 in Mottram and M1 junctions 35a and 36.

It is seeking to address journey time reliability, safety improvements across all modes, resilience and connectivity. The study is being progressed in two phases: a scoping phase which has just completed and a main study phase.

Scoping phase

We have undertaken a detailed review of work to date to help shape the approach to, and define the objectives of, the main study and the types of options that will be assessed in more detail. This has also given us an opportunity to consider more recent emerging evidence, including how travel patterns and priorities have changed in recent years.

The scoping phase has guided our approach to the main study. Investing time in considering these factors early is key in ensuring the correct focus of the study and its timely success in driving forward new investment in the region.

Main study phase

In the main study phase, we will seek to identify options that could help address the known poorly performing areas of the route. As part of our work in this phase, we will assess these options to determine their suitability and performance against agreed objectives, leading to a recommendation on a package of measures which can be taken forward. The types of options we expect to consider include:

- Improved access and facilities for cyclists, walkers, horse riders and wheelers
- Improved access to public transport, including better integration with bus and rail services
- Improvements to, and integration of, road and rail freight transport
- Measures to improve road safety and resilience
- Upgraded technology
- Environmental enhancements, such as climate adaptations
- Increase to road capacity on specific sections of the network

We will work closely with a number of stakeholders during this phase of the study to identify improvements. This will include the Peak District National Park, Network Rail, Transport for Greater Manchester, and South Yorkshire Mayoral Combined Authority.

We understand that the SRN does not operate in isolation and is an important part of the wider transport network. Broadening this study to consider improvements to alternative transport links, alongside improvements to the SRN, could help unlock the benefits being sought in this study.

What the study is looking to achieve

The broad aim of the study is to create a realistic list of priority interventions for future consideration for investment to support growth aspirations between Greater Manchester and Sheffield, alongside a series of multi-modal interventions to alleviate the known issues along the corridor. Recommendations on how these improvements should be delivered and scheduled will also be provided.

The study will:

- Provide a strengthened evidence base confirming known and new areas for intervention
- Provide proposals that have been developed and tested, considering both local and wider network impacts
- Set out proposals which can be delivered and sequenced in the short, medium and long term, allowing potential investment decisions to be made in the next Road Investment Strategy (RIS) (2025-2030)
- Develop the strategic case for intervention alongside a wider consideration of non-road solutions and multi-modal interaction and connection

Next steps

We recognise that improvements to the Trans-Pennine corridor are important to local stakeholders, including communities and businesses, many of whom have long supported such improvements.

Throughout the study process we will look to engage with partners and stakeholders, building on the engagement undertaken for previous studies in the area. We want them to understand the process we are taking to deliver this study and have the opportunity to influence its outcomes, and shape our study findings. This collaboration will be essential to ensuring we find the right balance in addressing the key questions.

We will be in touch with stakeholders in the coming months. However, if you have any initial questions or thoughts about this study please don't hesitate to get in touch. Contact details for the study are provided at the end of this booklet.

Timeline

We are aiming to conclude the results of the study by Autumn 2023. Once completed, the recommendations will be considered by the Department for Transport. The scale of this study means that any potential schemes identified will likely be subject to further decisions regarding investment and delivery in RIS3 (2020-2025) and/or future road investment programmes.

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