

# **DERBYSHIRE AND DERBY MINERALS LOCAL PLAN**

**Towards a Minerals Local Plan:  
Spring 2018 Consultation**

**Background Paper  
Transport**

**December 2017**

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# **1 Introduction and Background**

- 1.1 The efficient transport and delivery of minerals is vital to support national and local economic activity and facilitate growth and jobs. The majority of minerals produced within the Plan area are delivered to the market by road in heavy goods vehicles; the wider impact of this traffic includes increased congestion on both the local, and strategic highway network within and beyond the Plan area, and increased greenhouse gas emissions.
- 1.2 Locally, the transport of minerals and associated traffic is one of the most significant impacts relating to minerals development and is usually what causes most concern to communities. The movement of minerals and the importation of fill material to restore mineral workings can generate large volumes of traffic which mainly constitutes heavy good vehicles travelling on roads. Such traffic can have a considerable impact on local communities causing problems such as public safety, noise and vibration, air pollution and visual intrusion. These problems are most severe where heavy good vehicles use roads unsuited to their weight and size, where they pass through sensitive areas and at the access to the site from the public highway.
- 1.3 The Plan area has a wide range of mineral resources which include limestone, sand and gravel, coal, vein minerals and brick clay. Minerals within the Plan area supply not only local markets but regional, national and, in some cases, international markets. In terms of quantity, by far the most significant mineral extracted is limestone, around 9 million tonnes in recent years (average annual production 2009-2016)<sup>1</sup> accounting for over 80% of all minerals produced (by weight) within the Plan area. Other minerals produced within the Plan area include sand and gravel (9%), coal (5%) and small quantities of vein minerals (mainly fluorspar & barytes), gas, sandstone, silica sand & clay and shale (each less than 1%). Around 68% of the limestone aggregate produced is exported;

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<sup>1</sup> Annual Mineral Survey Derbyshire (2009-2016)

the largest share of exports is to the North West region comprising the Manchester – Liverpool conurbations.<sup>2</sup>

- 1.4 Detailed information on the transport of minerals within the Plan area is limited; the last East Midlands Regional Aggregate Working Party survey on transport occurred in 2009 when of the total limestone produced for use as aggregates i.e. 7.2mt, approximately 71% was transported by road and 30% by rail.<sup>3</sup> Of the limestone aggregate that was exported i.e. 4.9mt, 58% was transported by road and 42% by rail.<sup>4</sup> Additionally, we know that a small amount of the 3mt of limestone produced for industrial uses is also transported by rail. All of the other minerals are reliant on road transport. Historically there has also been the very small scale transport of minerals by barge along the River Trent.
- 1.5 In general terms the overall scale of mineral working from within the Plan area is not expected to rise significantly over the Plan period to 2030 and consequently any increase in mineral transportation should be minimal. It is anticipated that there will be a small increase in the production of crushed rock aggregate as production in the Peak District National Park is progressively decreased and replaced from quarries within the Plan area. It should be noted, however, that the demand for minerals and particularly those used in the construction sector, such as aggregates, fluctuates widely in line with the performance of the economy, which will impact on production and hence mineral transportation levels.

## **2 National and Local Policy**

- 2.1 The following section explains the policy context for considering transport issues as part of the development plan process.

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<sup>2</sup> East Midlands Regional Aggregates Working Party Report 2009

<sup>3</sup> East Midlands Regional Aggregates Working Party Report 2009

<sup>4</sup> East Midlands Regional Aggregates Working Party Report 2009

**Department for Business, Energy and Industrial Strategy – Building our Industrial Strategy, Green Paper, January 2017**

- 2.2 The main objective of the Government's industrial strategy is to improve living standards and economic growth by increasing productivity and driving growth across the whole of the country. One of the key requirements identified to drive the strategy forward is the need to upgrade infrastructure including transport infrastructure.

**Department for Transport - National Policy Statement for National Networks, January 2015**

- 2.3 The National Networks National Policy Statement (NN NPS) sets out:
- The need for development of road, rail and strategic rail freight interchange projects on the national transport networks, and
  - The policy against which the Secretary of State for Transport will make decisions on applications for major road and rail projects.
- 2.4 Reference to it is included in this Paper to provide an overview of the Government's strategic policy for ensuring necessary development in order to achieve the long-term goals for sustainable transport.
- 2.5 The NN NPS (paragraph 2.1) recognises that national road and rail networks that connect our cities, regions and international gateways play a significant part in supporting economic growth, as well as existing economic activity and productivity.... Well-connected and high performing road and rail networks with sufficient capacity are vital to meet the country's long-term needs and support a prosperous economy<sup>5</sup>.
- 2.5 The NN NPS at Chapter 2 sets out the Government's vision and strategic objectives for national road and rail networks which are to deliver national networks that meet the country's long-term needs; supporting a prosperous and

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<sup>5</sup> The Eddington Transport Study: The Case for Action 2006, NN NPS 2014, Paragraph 2.1

competitive economy and improving overall quality of life, as part of a wider transport system. This means:

- Networks with the capacity and connectivity to support national and local economic activity and facilitate growth and create jobs
- Networks which support and improve journey quality, reliability and safety
- Networks which support the delivery of environmental goals and the move to a low carbon economy
- Networks which join up our communities and link effectively to each other.

2.6 Increases in economic prosperity and population will increase the pressure on our networks even further. Under central forecasts, road traffic is forecast to increase by 30% by 2030 and rail journeys by 40%, while rail freight has the potential to nearly double by 2030.<sup>6</sup> Even under low demand scenarios, traffic is forecast to grow by 26% and rail journeys by 36%. Without action, congestion and crowding will constrain the economy, reduce quality of life and prevent environmental improvements.

## **Roads**

2.7 Roads are the most heavily used mode of transport in England and a crucial part of the transport network. By volume, roads account for 90% of passenger miles and two thirds of freight.<sup>7</sup> The Strategic Road Network<sup>8</sup> provides critical links between cities, joins up communities, connects our major ports, airports and rail terminals. It provides a vital role in people's journeys, and drives prosperity by supporting new and existing development, encouraging trade and attracting investment. A well-functioning Strategic Road Network is critical in enabling safe and reliable journeys and the movement of goods in support of the national and regional economies.

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<sup>6</sup> Road traffic forecast figures from the National Transport Model, August 2013. Rail passenger forecasts from the Network Modelling Framework, October 2011. Rail freight forecasts from Network Rail, NN NPS 2014, Paragraph 2.4

<sup>7</sup> Transport Statistics Great Britain Table TSGB0101 and TSGB0101, NN NPS 2014, Paragraph 2.12

<sup>8</sup> The Strategic Road Network comprises of motorways and major trunk roads managed by the Highways England

- 2.8 The Strategic Road Network, although only making up 2% of roads in England, carries a third of all road traffic and two thirds of freight traffic.<sup>9</sup> Some 85% of the public use the network as drivers or passengers in any 12-month period.<sup>10</sup> Even those that never drive on the Strategic Road Network are reliant on it to deliver many of the goods that they need.
- 2.9 The Strategic Road Network is already under significant pressure. On the road network, it is estimated that in 2010 around 16% of all travel time was spent delayed in traffic.<sup>11</sup> That congestion has significant economic costs: in 2010 the direct costs of congestion on the Strategic Road Network in England were estimated to be £1.9 billion per annum.<sup>12</sup> The pressure on the road network is forecast to increase with economic growth, substantial increases in population and a fall in the cost of car travel from fuel efficiency improvements. Under the Department's 2014 estimates, it is forecast that a quarter of travel time will be spent delayed in traffic by 2040, with direct costs rising to £9.8 billion per annum by 2040 on the Strategic Road Network in England, without any intervention.<sup>13</sup>
- 2.10 In general, the greatest pressure is likely to be in and around areas of high population density and along key inter-urban corridors with high traffic volumes that support personal, commuting, business and freight movements. Congestion is forecast to grow fastest on the Strategic Road Network. The Maps below show existing and forecast congestion on the SRN<sup>14</sup>.

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<sup>9</sup> Transport Statistics Great Britain: Tables TRA4104 and TRA4105, NN NPS 2014, Paragraph 2.14

<sup>10</sup> National Road User Satisfaction Survey, NN NPS 2014, Paragraph 2.14

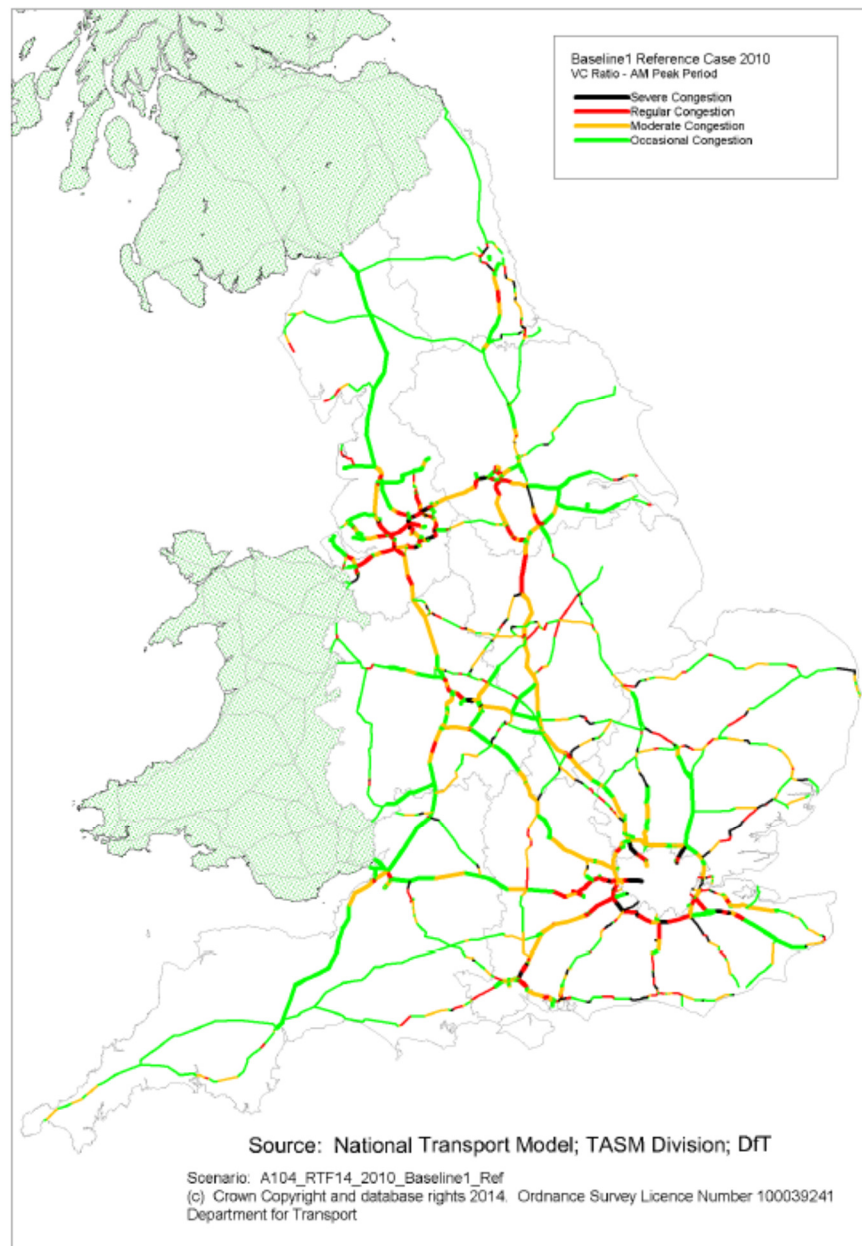
<sup>11</sup> Based on forecast figures from the National Transport Model for all England roads, NN NPS 2014, Paragraphs 2.3

<sup>12</sup> NN NPS 2014, Paragraph 2.17

<sup>13</sup> Based on forecast figures from DfT National Transport Model. Although it would not be realistic or cost effective to eliminate congestion completely as the costs of building new infrastructure would outweigh the time savings benefits to travellers, these figures illustrate that the cost of not responding to transport pressures can be substantial, NN NPS 2014, Paragraph 2.18

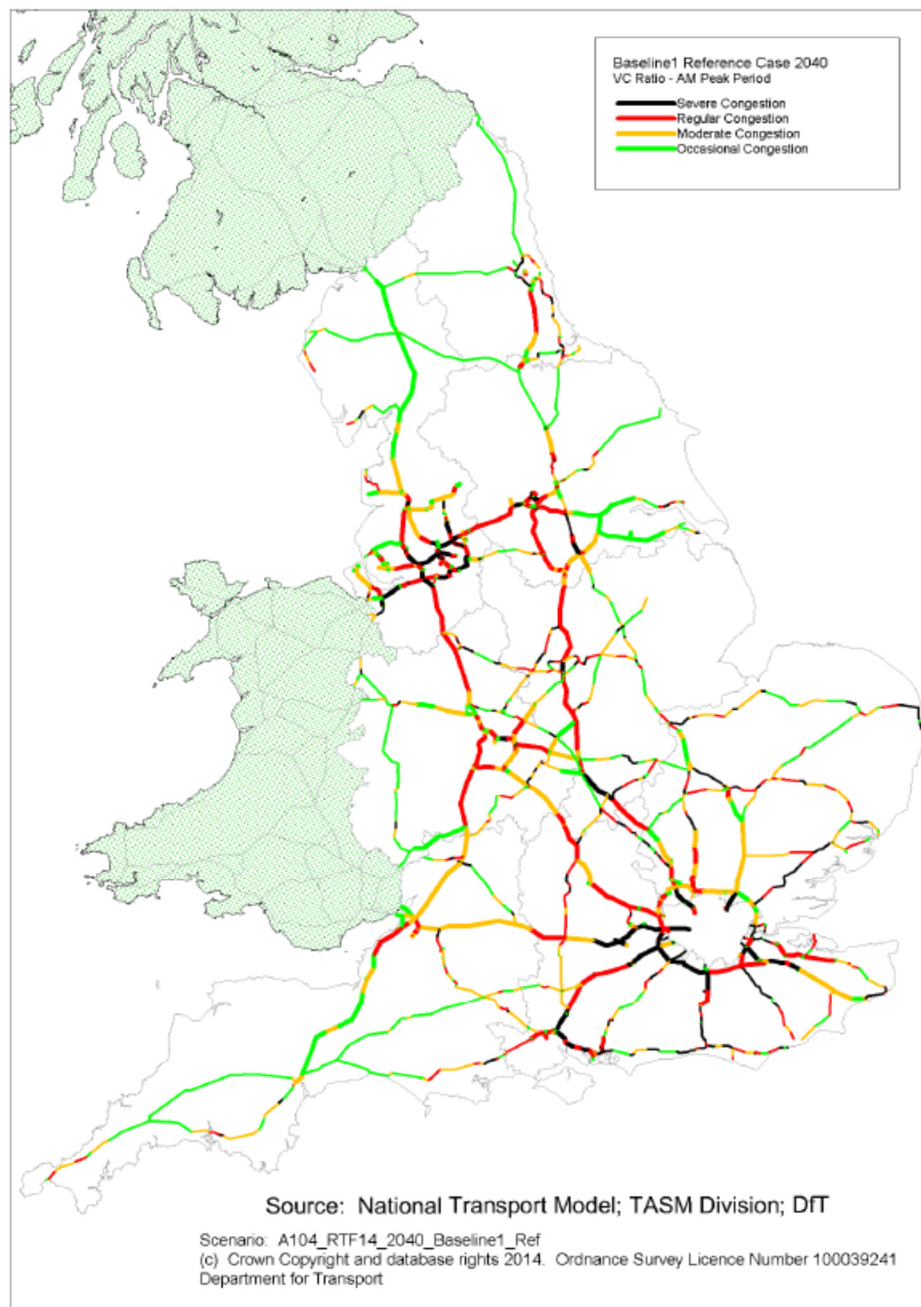
<sup>14</sup> NN NPS 2014, Annex A

## Congestion on the Strategic Road Network in 2010





## Congestion on the Strategic Road Network in 2040



## Rail

- 2.11 Railways are a vital part of the country's transport infrastructure. Rail freight has traditionally been associated with the carriage of heavy, bulky materials such as minerals. It still does play a key role for transporting such goods; however in the last decade rail freight has participated significantly in the movement of consumer goods. In 2013/14, the rail network in Great Britain consisted of 15,753 km (9,788 miles) of route open to traffic and 2,550 stations.<sup>15</sup> Approximately 9% of 'freight kilometres' in Great Britain are carried by rail<sup>16</sup>, taking into account the amount of freight moved and the distance they travel, the amount of freight moved by rail in 2013/14 was 23 billion net tonne kilometres.<sup>17</sup> 36% of freight moved was coal, the highest proportion for any commodity.
- 2.12 The amount of freight moved has expanded by 75% since 1994/95. Total tonne kilometres are forecast to grow by 3% annually to 2043, the same rate as the growth seen in the mid-1990s.<sup>18</sup> Rail freight delivers nearly all the coal for the nation's electricity generation and over a quarter of containerised food, clothes and white goods. Of the goods carried, import and export trade feature strongly but many are moved for internal consumption. Rail freight is therefore of strategic importance, it is already playing an increasingly significant role in logistics and, is an increasingly important driver of economic growth, particularly as it increases its market share of container traffic. The industry estimates that it contributes £1.5 billion per year to the UK's economy.<sup>19</sup>
- 2.13 Rail transport has a crucial role to play in delivering significant reductions in pollution and congestion. Tonne for tonne, rail freight produces 70% less CO<sub>2</sub> than road freight, up to fifteen times lower NO<sub>x</sub> emissions and nearly 90% lower

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<sup>15</sup> Office of Rail Regulation, Total Length of Route/Number of Passenger Stations, NN NPS 2014, Paragraph 2.28

<sup>16</sup> Source: DfT, Transport Statistics Great Britain 2012, Table TSGB0403, NN NPS 2014, Paragraph 2.28

<sup>17</sup> Office of Rail Regulation, Freight rail usage statistics, NN NPS 2014, Paragraph 2.28

<sup>18</sup> Network Rail Freight Market Study (October 2013), NN NPS 2014, Paragraph 2.34

<sup>19</sup> Keeping the Lights on and the Traffic Moving", Rail Delivery Group, May 2014, NN NPS 2014, Paragraph 2.34

PM10 emissions.<sup>20</sup> It also has de-congestion benefits – depending on its load, each freight train can remove between 43 and 77 HGVs from the road.<sup>21</sup>

## **Sustainable Road and Rail Networks**

2.14 The NN NPS sets out the Government's policy on the development of sustainable networks across the modes:

- Roads – as a priority to reduce congestion and unreliability by focusing on improving and enhancing the existing national road network e.g., junction improvements, implementing managed motorways (known as SMART motorways) to increase capacity and improve performance' additional dual carriageways. However, in some cases, to meet the demands on the national road network it will not be sufficient to simply expand capacity on the existing network and so some new road alignments and corresponding links may be needed to support increased capacity and connectivity. Individual schemes will be brought forward to tackle specific issues rather than to meet unconstrained traffic growth (i.e. predict and provide).
- Rail – short to medium-term - improve capacity, capability and reliability of the rail network at key locations for both passenger and freight movements to reflect growth in demand, reduce crowding improve journey times, maintain or improve operational performance and facilitate modal shift from road to rail. As demand pressure rises – long-term - substantial investment in infrastructure capacity will be needed. New high speed inter-urban rail links are expected to provide the most effective way of increasing inter-city capacity and connectivity (HS2 projects). High speed rail would offer the opportunity for a shift from air and road traffic. Transferring many inter-city services to a high speed railway would release capacity on the conventional road network, increasing opportunities for additional commuter, regional and freight services.

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<sup>20</sup> Delivering a Sustainable Transport System: The Logistics Perspective. DfT, December 2008, NN NPS 2014, Paragraph 2.35

<sup>21</sup> Network Rail: The Value and Importance of Rail Freight, NN NPS 2014, Paragraph 2.35

- Strategic Rail Freight Interchanges – for many freight movements rail is unable to undertake a full end-to-end journey for the goods concerned. Rail freight interchanges (RFI) enable freight to be transferred between transport modes, thus allowing rail to be used to best effect to undertake the long-haul primary trunk journey, with other modes (usually road) providing the secondary (final delivery) leg of the journey.

2.15 The aim of a strategic rail freight interchange (SRFI) is to optimise the use of rail in the freight journey by maximising rail trunk haul and minimising some elements of the secondary distribution leg by road, through co-location of other distribution and freight activities. SRFIs are a key element in reducing the cost to users of moving freight by rail and are important in facilitating the transfer of freight from road to rail, thereby reducing trip mileage of freight movements on both the national and local road networks. There will be a need for an expanded network of SRFIs to serve regional, sub-regional and cross-regional markets providing good connectivity with both the road and rail network.

### **Air Quality Management Areas (AQMAs)**

- 2.16 The 2008 ambient air quality directive (2008/50/EC) sets legally binding limits for concentrations in outdoor air of major air pollutants that impact public health such as particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) and nitrogen dioxide (NO<sub>2</sub>). As well as having direct effects, these pollutants can combine in the atmosphere to form ozone, a harmful air pollutant (and potent greenhouse gas) which can be transported great distances by weather systems.
- 2.16 The Environment Act 2005 requires the Government to publish a National Air Quality Strategy which sets out the UK's air quality objectives and recognises that action at national, regional and local level may be needed, depending on the scale and nature of the air quality problem. Road transport is one of the major sources of air pollution which can have an effect on human health and the environment. In accordance with Part IV of the Environment Act 1995 local authorities are required to assess air quality in their area and if any standards

are being exceeded or unlikely to be met they must designate an AQMA and draw up an action plan aimed at reducing levels of the pollutant.

### **Noise Action Plan Areas (NAPAs)**

- 2.17 The European Directive 2002/49/EC relates to the assessment and management of environmental noise; it has been implemented through the Environment Noise (England) Regulations 2006 as amended, which require through noise mapping, the determination of exposure to environmental noise from major sources of road, rail and aircraft noise and in urban areas (known as agglomerations). Based on the noise mapping results, Action Areas must be established in which Action Plans will be drawn up and implemented to manage environmental noise and its effects, including noise reduction if necessary. They also aim to protect quiet areas in agglomerations where the noise quality is good.
- 2.18 Action Plans are intended to promote good health and good quality of life (well-being) through the effective management of noise, in line with the Government's noise policy. They are also intended to assist the management of environmental noise within the context of the Government's policy on promoting sustainable development. In implementing Action Plans Local Planning Authorities (LPAs) will need to balance any potential action to manage noise with wider environmental, social and economic considerations, including cost effectiveness.
- 2.19 DEFRA has published three noise action plans, in 2014, covering noise within Agglomerations, noise from road sources and noise from rail sources. For each of the Action Plans 'Important Areas' will be defined in which the population at these locations is likely to be at the greatest risk of experiencing a significant adverse impact to health and quality of life from their exposure to environmental noise. Within these areas environmental noise and its effects will need to be managed and reduced where necessary.

## **National Planning Policy Framework (NPPF)**

- 2.20 The National Planning Policy Framework<sup>22</sup> (NPPF) set out the Government's planning policies and how these are expected to be applied. Further guidance is provided in the National Planning Practice Guidance (NPPG). Promoting sustainable transport is one of the twelve core principles set out in the NPPF which should underpin both plan making and decision taking. Transport policies have an important role to play in facilitating sustainable development but also in contributing to wider sustainability and health objectives.
- 2.21 The NPPF<sup>23</sup> requires Local Plans to support a pattern of development which, where reasonable to do so, facilitates the use of sustainable modes of transport. Encouragement should also be given to solutions which support reductions in greenhouse gas emissions and reduce congestion.
- 2.22 Transport routes don't stop at local authority boundaries. It is important therefore, that LPAs should work together to develop strategies for the provision of viable infrastructure necessary to support sustainable development including large scale facilities such as rail freight interchanges. (NPPF, Paragraph 31).
- 2.23 Where developments will generate significant amounts of movement they are required to be supported by a Transport Statement or Transport Assessment. Local Plans and decision making should take account of whether:
- The opportunities for sustainable transport modes have been taken up depending on the nature and location of the site, to reduce the need for major transport infrastructure ;
  - Safe and suitable access to the site can be achieved for all people; and

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<sup>22</sup> National Planning Policy Framework (NPPF), DCLG, 2012

<sup>23</sup> National Planning Policy Framework (NPPF), DCLG, 2012, Paragraph 30

- Improvements can be undertaken within the transport network that cost effectively limits the significant impacts of the development. Development should only be refused on transport grounds where the residual cumulative impacts of development are severe.(NPPF, paragraph 32)

2.24 Paragraph 34 requires local plans and decision making to ensure that developments that generate significant movement are located where the need to travel will be minimised and the use of sustainable transport modes can be maximised for the movement of goods or people. A key tool to facilitate this will be a travel plan which will be required for developments that generate significant amounts of movement.

2.25 Section 13 of the NPPF sets out the Government's policy approach towards achieving the sustainable use of minerals. NPPF, at paragraph 143, recognises that the safeguarding of transport infrastructure is an important means of encouraging sustainable minerals transport and therefore LPAs, in preparing local plans, are required to safeguard: existing, planned and potential rail heads, rail links to quarries, wharfage and associated storage, handling and processing facilities for the bulk transport by rail, sea or inland waterways of minerals, including recycled and secondary materials; and existing, planned and potential sites for concrete batching, the manufacture of coated materials, other concrete products and the handling, processing and distribution of substitute recycled and secondary aggregate material.

2.26 Local Plans will need to set out environmental criteria, in line with the NPPF, against which planning applications will be assessed to ensure that permitted operations do not have unacceptable adverse impacts on the natural and historic environment or human health, including traffic impacts and take into account the cumulative effects of multiple impacts from individual sites/and/or a number of sites in the locality.

2.27 The NPPF at paragraph 162 requires that, in preparing local plans, LPAs should work with other authorities and providers to assess the quality and capacity of infrastructure for transport and its ability to meet forecast demands and take

into account the need for strategic infrastructure in their areas including nationally strategic infrastructure.

### **National Planning Practice Guidance (NPPG)**

2.28 National Planning Practice Guidance (NPPG) provides additional advice on how LPAs should plan for sustainable transport. It sets out key issues that should be considered in developing a transport evidence base to support the Plan. The issues specifically relating to minerals are as follows:

- Assess the existing situation and likely generation of trips over time by all modes and the impact on the locality in economic, environmental and social terms
- Assess the opportunities to support a pattern of development that, where reasonable to do so, facilitates the use of sustainable modes of transport
- Identify opportunities to prioritise the use of alternative modes in both existing and new development locations if appropriate
- Consider the cumulative impacts of existing and proposed development on transport networks
- Assess the quality and capacity of transport infrastructure and its ability to meet forecast demands
- Identify the short, medium and long-term transport proposals across all modes.

2.29 Evidence will be needed to develop, both an overarching strategy for minerals transportation and more detailed development management policies to address the transport impacts of site specific development proposals. It will also be needed to assess potential mineral sites that have been promoted by operators to determine their suitability for allocation in the Plan.

### **Current Local Plan Policy**

2.30 Policy MP5 of the Derby and Derbyshire Minerals Local Plan (2002) states that, 'proposals for mineral development involving the transport of minerals by road will be permitted provided that there is no environmentally preferable feasible alternative to road transport, the access and capacity of the highway network



are acceptable and the traffic generated would not be detrimental to road safety nor have an unacceptable impact on the environment.'

### **Local Transport Plans**

- 2.31 Local Transport Plans are required to set out a highway authority's long-term policies and delivery plans relating to transport. They should consider the transport needs of people and freight. They should consider not only enhancements to transport services but the maintenance, operation, management and best use of assets necessary for transport delivery, taking into account environmental constraints.

### **Derbyshire Local Transport Plan April 2011 (LTP3)**

- 2.32 The Local Transport Plan applies to the area covering the administrative county of Derbyshire County Council. It sets out a transport vision, goals, challenges to be tackled and a strategy covering the period to 2026.
- 2.33 The vision aims to achieve a transport system that is both fair and efficient, promotes healthier lifestyles, safer communities, safeguards and enhances the natural environment and provides better access to jobs and services. Whilst also improving choice and accessibility of transport and integrating economic, social and environmental needs.

The five transport goals are:

- Supporting a resilient local economy.
  - Tackling climate change.
  - Contributing to better safety, security and health.
  - Promoting equality of opportunity.
  - Improving quality of life and promoting a healthy natural environment.
- 2.34 Key transport and investment priorities for 2011-2026 are set out under the following headings:
- Well maintained roads and rights of way
  - Efficient transport network management
  - Improving local accessibility and achieving healthier travel habits

- Better safety and security
- A considered approach to new infrastructure

2.35 **Appendix B** of the LTP sets out the relationship between transport and spatial planning. It sets out the way in which the transport impacts of new development will be assessed and includes a number of policy statements.

#### Policy Statements:

- 2.36 The County Council, as highway authority, will make recommendations to the planning authorities to influence and encourage decisions on proposals for mineral development to be aligned with transport policy. They will also advise on any conditions required as part of planning agreements where these are needed to make the development acceptable.
- 2.37 The following list sets out key transport/spatial planning policy statements, which will be used by the County Council in considering the transport implications of mineral proposals.

#### Local Accessibility

- 2.38 Part of the Transport Vision says that... “we will improve the choice and accessibility of transport whilst integrating economic, social and environmental needs.” In order to achieve this, we need to work with our planning colleagues in the Local Planning Authorities to ensure that new developments minimise their impacts on the surrounding local networks (highway, public transport, cycling and walking) either by their location, or by implementing measures to alleviate those impacts.
- TLA1 Encourage planning applications in locations served easily by rail and/or major roads, aiming to reduce congestion on strategic routes and also locally.
  - TLA2 Ensure new developments provide for accessible transport services, such as public transport improvements and links to existing public transport, cycling and pedestrian networks, requiring developer contributions where necessary. Developer contributions would be either through a Section 106

agreement with the developer and appropriate planning authority or, if relevant, a Community Infrastructure Levy.

- TLA3 Encourage developers to provide convenient and secure parking and storage facilities for pedal cycles and powered two wheelers, where appropriate, in new developments, existing public areas and publicly-funded facilities e.g. town centres, community centres, schools etc.
- TLA4 Good quality access and parking facilities for cyclists should be incorporated into both residential and commercial development proposals.
- TLA5 Settlements with existing or proposed public transport interchange facilities will be favoured as locations for new development.
- TLA6 Developers of any project requiring a Transport Statement or Assessment will be required to demonstrate that their development is readily served by non-motorised modes of travel and incorporates features that reduce the desire to travel.
- TLA7 Developers of any project requiring a Transport Assessment will be required to submit a detailed Travel Plan as part of the Assessment as detailed in Appendix B of the DfT Guidance on Transport Assessment. A Travel Plan may also be required for developments not requiring a full Transport Assessment.
- TLA8 Where multiple development proposals are likely to have a significant influence on the local transport network, proportional investment may be required in the necessary improvements to the network.

#### Safety, Security and Health

2.39 Transport can have a major effect on people's health and welfare. As well as the more serious collisions that we are aware of, there are many unreported minor injuries, all of which can increase the fear and anxiety that people experience on a daily basis. Additionally, as we are becoming more aware of the health implications of both air pollution, and a more sedentary lifestyle, we need to encourage more and better use of walking and cycling as methods of travel, and will encourage the use of low emission strategies.

- TS1 Improve road and transport-related community safety through the spatial planning process, e.g. developers of any project requiring a Transport

Assessment will be required to demonstrate that road and community safety will be effectively addressed by the development.

### Economy

2.40 One of the transport goals is to support a resilient economy. We need to ensure that, as far as possible in the current economic climate, the necessary transport services and facilities are in place.

- TEC1 Work to overcome access obstacles to sites identified in the spatial planning process.

### Freight

2.41 The movement of freight is an essential element of the local economy, but there is concern about the adverse effects of road freight transport on the environment. Heavy lorries can be visually intrusive, are widely seen as a source of danger, and they create noise, dust and dirt.

The Council will continue to support opportunities to move freight on to rail. So far, around 8 million tonnes of freight per annum has been transferred to the rail network and these efforts will continue particular in relation to the movement of aggregate minerals.

- TFR1 Safeguard and seek to open rail lines and rail-served sites where potential exists for future freight use, whilst minimising any environmental or social consequences this may have.

### Environment

2.42 The LTP is subject to a SEA to ensure that a range of environmental considerations are considered as part of the Plan's development, implementation and monitoring. The following policy reflects some of those sustainability issues.

- TENV1 In designing the transport infrastructure of any development, developers should, wherever possible, use recycled, sustainable, locally sourced and locally distinctive materials.

## Maintenance and Efficient Transport Network Management

2.43 Maintaining the existing highway and rights of way networks is likely to take up a significant proportion of all expected transport investment over the next five years and beyond. Consequently, we must ensure that roads in any new developments do not add significantly to the current maintenance estimates.

- TM1 Ensure that new developments minimise future highway maintenance requirements.
- TM2 Developer contributions will be sought to offset maintenance commitments.

## Assessing the Transport Impacts of New Development

2.44 In order to determine the impacts of a new development, a Transport Assessment (or Statement for smaller developments) is normally required as part of the planning application procedure. The NPPG covers the scale and type of information that a Transport Assessment/Statement should contain.

2.45 The purpose of the Transportation Assessment is to examine the effects of development related traffic on the surrounding highway network in terms of safety, highway capacity and sustainability. Significantly, in so far as the Highway Authority is concerned, the NPPF states that:

“Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe”. Consequently the definitive ‘test’ when responding to the planning application is whether or not the impact of the development related traffic would be significant enough to warrant a technical recommendation of refusal of planning permission. In order to do this the Highway Authority would have to be able to demonstrate that not only would the volume of extra traffic be sufficiently large but that it would cause severe harm to highway safety or operations.

- 2.46 Generally speaking, the County Council's primary aim is to facilitate new development where possible, provided it is safe, accessible and sustainable. The Transportation Assessment Guidance advises that the highway network should provide capacity that is comparable to the general capacity of the part of the network affected. Consequently the County Council, when responding to some planning applications, has indicated a need to adopt a less restrictive approach to a requirement to achieve a 'nil detriment'.
- 2.47 Additionally, the County Council has indicated also that there will inevitably be circumstances whereby, even with a comprehensive package of mitigation measures, it may not be possible to fully mitigate future development.

### **Derby City Local Transport Plan (LTP3) 2011**

- 2.48 The Local Transport Plan applies to the area covering the administrative area of Derby City. It provides a basis for transport policy over the next 15 years to 2026.
- 2.49 The strategy of the LTP is set out below:  
'Our long-term strategy is a balanced approach for all areas of transport. We aim to make best use of our existing transport asset by maintaining the roads, managing traffic using the roads, and investing further in measures to support people who choose to travel by sustainable transport modes other than the private car. We need to invest in all these areas to make the most of opportunities for economic growth, and help the city minimise carbon emissions and adapt to climate change.'
- 2.50 Maintenance is a high priority for Derby, and we will also continue to encourage and support the use of sustainable transport modes. We must make sure that we do not lose momentum in other initiatives such as Cycle Derby, preparation for major schemes, and local and active sustainable travel measures, which are essential to meet our national and local goals, and address the challenges facing the city in the future.

2.51 Safety must continue to be an extremely high priority for Derby. Although we have low actual casualty rates we have not reduced accident rates across the city as much as we intended to over the last five years and there are still too many casualties on the transport network. We will continue to invest in measures that make Derby a safer place for all people who use or are affected by the transport network.

Land use and the design of developments will continue to have a fundamental influence on the way people travel or choose to travel. Land use policies to support efficient allocation of space to every transport user will be developed as a part of the emerging Local Development Framework.

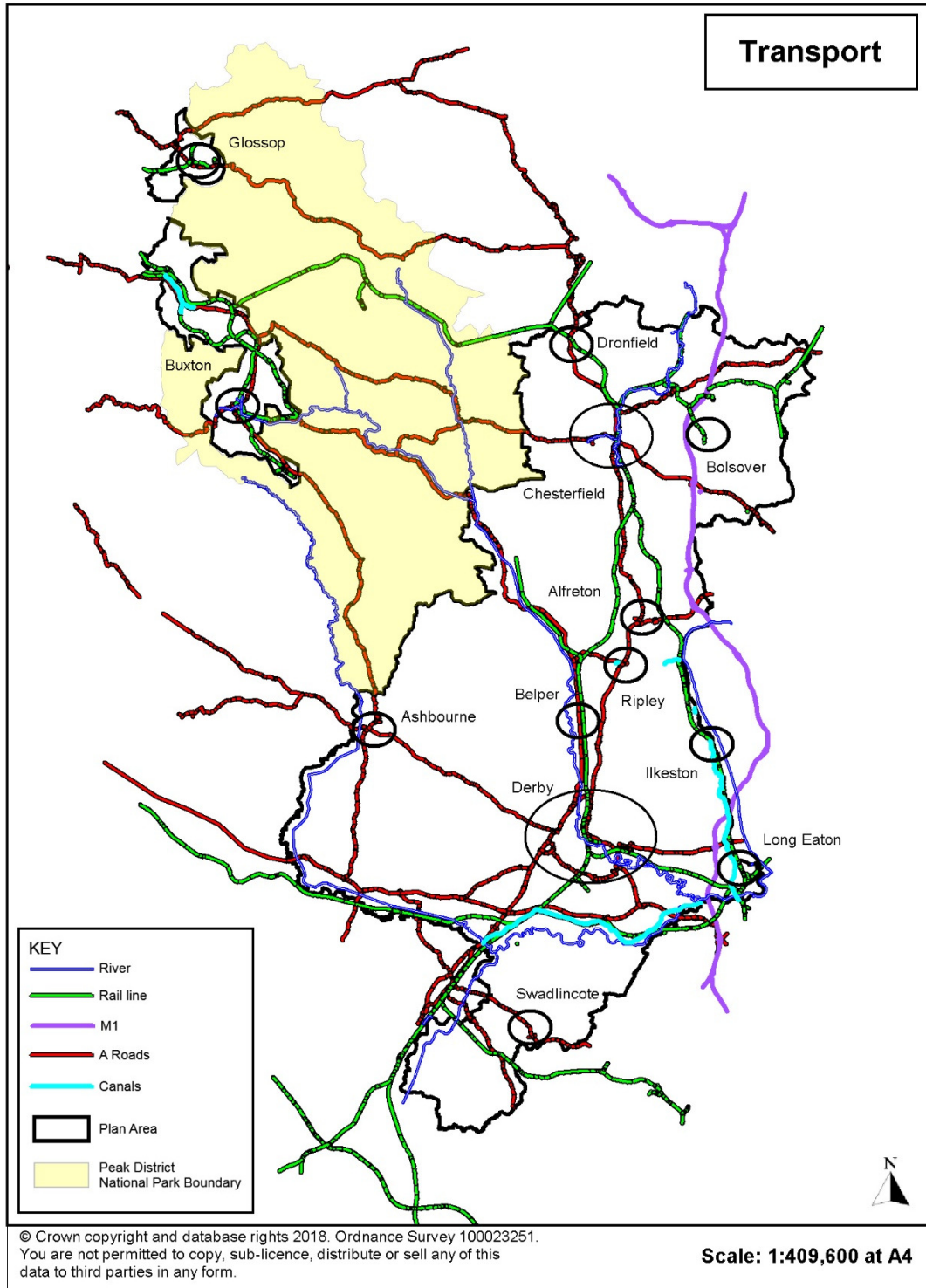
2.52 There are no active quarries within Derby City and therefore minerals transportation is not a major issue. However, key themes of Derby's LTP3 long-term transport strategy that are applicable to minerals transport are:

2.53 Land Use Policies – we will focus on getting developments located in the right places to support the economic growth of the City whilst minimising the need to travel and reducing negative impacts of additional development traffic.

2.54 Network Management – Derby's network of roads, pavements, cycle routes and footpaths are an essential asset which enables the movement of people, goods and services through and across the city. The network has to be managed safely and efficiently to reduce unnecessary delays, facilitate economic activity and minimise disruption from incidents or planned events.

### 3 The Existing Transport Network and Future Proposals

The principal transport network within the Plan area is shown on the Map below.





## **Transport Network**

### **Roads**

- 3.1 The Plan area has a good Strategic Road Network, which provides excellent links to other regions, particularly to the north and the south via the M1, the A38 and the A61. The A50 provides an important east-west route in the south of the county linking the M1 to the M6 to the west of the Plan area. It is therefore easily accessible to and from a number of large neighbouring conurbations, including Manchester, Sheffield, Leeds and Nottingham which greatly influence transport movements.
- 3.2 One of the Government's key aims for transport is to encourage economic growth by minimising congestion on the SRN. The Department for Transport (DfT) has published its first Road Investment Strategy (RIS) for the period 2015/16 to 2019/20. It includes schemes to improve six strategic transport corridors based on feasibility studies announced in 2013, including the trans-Pennine corridor in the north of the Plan area.
- 3.3 It also contains schemes that have arisen as a result of evidence from Route Based Strategies (RBS) produced by Highways England (HE), a newly created government owned strategic highways company, responsible for planning the long-term future and development of the Strategic Road Network (SNR) i.e. Motorways and Trunk Roads. The HE working with Local Authorities (LAs) and Local Enterprise Partnerships (LEPs) will identify operational and investment priorities on the SRN, through Route Based Strategies. Major transport investment to support economic growth is anticipated to be funded in the future from the Government's Local Growth Fund.
- 3.4 Key investments included in the RIS that directly affect the Plan area are:
- Trans-Pennine Routes
- These routes between Manchester and Sheffield which pass through the very northern part of the Plan area have been identified as performing poorly in terms of congestion and accidents which impacts on the nearby Peak District

National Park. A £170 million investment package is contained in the RIS as shown on the Map below.



Other schemes

Schemes in construction

**M1 Junctions 28-31** – upgrading the M1 to Smart Motorway between junction 28 (Mansfield) and junction 31 (Sheffield). Together with existing improvements to the south, this creates a Smart Motorway link between Derby, Nottingham and Sheffield.

Schemes committed previously announced

**A38 Derby junctions** – replacement of three roundabouts on the A38 in Derby with grade-separated interchanges, raising the A38 in the East Midlands to Expressway standard and removing congestion.

**M1 Junctions 24-25** – upgrading the M1 to Smart Motorway between junction 24 and junction 25 in the East Midlands.

Newly announced in this strategy

**M1 Junction 23A-24** – extends the previously-announced M1 Smart Motorway junctions 24-25 improvement to junction 23A (East Midlands Airport).

- 3.5 The RIS includes a long-term funding commitment to support its delivery which means that schemes included will enter construction in this road period.

#### Strategic Studies

- 3.6 Some challenges on the SRN are too complex to fix in a single Road Period. These have been earmarked for strategic studies; one such study impacting on the Plan area is the Trans-Pennine Tunnel. This study will examine the case for Manchester and Sheffield to be connected by a high-performance link. Such a connection could have a dramatic impact on the economy of the north, particularly in combination with plans for high speed rail links. It would be capable of fundamentally changing the nature of the journey between two of the most important cities of the north. But the invaluable landscapes and ecological significance of the Peak District National Park rule out a surface link. The only credible solution may therefore be to construct a tunnel under the central part of the Pennines. This carries with it the potential to bring important environmental improvements to the Peak District National Park. Such a project would be the most ambitious road scheme since the construction of the first motorways fifty years ago. The engineering and delivery of such a tunnel would be a national first. The proposal therefore needs to be studied in detail to confirm its viability.

#### Rail

- 3.7 The Plan area has good rail links to major cities including Nottingham, Leicester, London, Birmingham, Sheffield, Manchester and Leeds, however, there are few rail lines solely dedicated to rail freight. In general, rail transport is only viable at high volume, long-life quarries where the significant capital costs can be recovered, although smaller operations can sometimes access the rail network when opportunities arise.

- 3.8 The Government's most recent investment for railways is set out in the Department of Transport - Rail Investment Strategy 2014 – 2019. The key aspect of this Strategy affecting the Plan area is the proposed creation of the 'electric spine' a high capacity and freight electric corridor running from the South Coast through Oxford, via the Midland Mainline to the East Midlands and South Yorkshire, with a link from Oxford to the West Midlands and the North West. The creation of an electrified route linking the core centres of population and economic activity in the Midlands and North with the major container port of Southampton is important. The rolling programme of electrification is expected to help make rail freight commercially more attractive across England, supporting growing international trade and the transfer of container traffic from road. A recent Government statement<sup>24</sup> indicates that key timescales in the Strategy regarding electrification are to be paused.
- 3.9 In the longer-term a new railway, HS2, will be built linking 8 of Britain's 10 largest cities; the new line will pass directly through the Plan area linking Birmingham, Derby, Sheffield and Leeds. It will greatly increase passenger capacity and at the same time free up capacity on the existing rail lines for more freight train services. Future investments on the rail network are shown on the Map below.<sup>25</sup>

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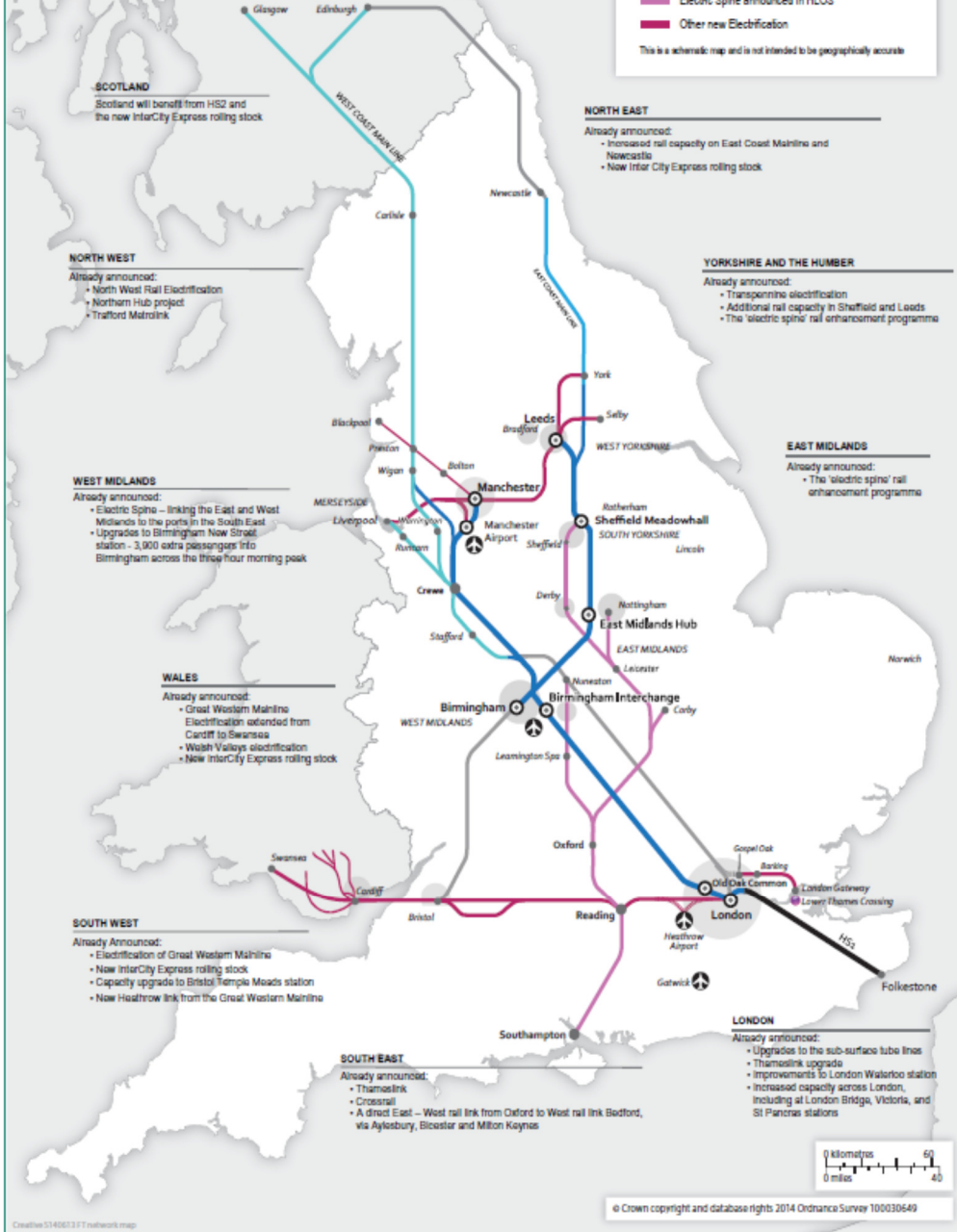
<sup>24</sup> Department of Transport Statement on Network Rail's Performance 25/06/2015

<sup>25</sup> Department of Transport - Roads Investment Strategy 2015/16 to 2019/20

# Wider transport investment

- Rail**
- HS2 Station
  - Other Station
  - HS2 Network (Phase One & Two)
  - HS2 services on West Coast Main Line
  - HS2 services on East Coast Main Line
  - Existing Lines
  - Electric Spine announced in HLOS
  - Other new Electrification

This is a schematic map and is not intended to be geographically accurate



## **Water**

- 3.10 The River Trent is navigable from Shardlow and has connections to the Trent and Mersey Canal in the south of the Plan area. A recent study undertaken by the Canal and Rivers Trust<sup>26</sup> has revealed that there has been a dramatic reduction in freight on CRT's Commercial Waterways over recent years from 3.8million tonnes in 2001/02 to just 1.3m tonnes in 2011/12, and currently less than 0.5m tonnes p.a. Of the 10 commercial waterways most are in Yorkshire and the north Midlands, feeding the Humber estuary - Aire and Calder Navigation (A&CN) and its branches, the Sheffield and South Yorkshire Navigation (SSYN), the River Ouse and within the Plan area, the Tidal Trent.
- 3.11 This document proposes a new policy approach to water freight management through the designation of the commercial waterways into three classifications, to reflect their current or potential demand (or lack of) while also taking into account of the cost of making and maintaining them fit for freight as opposed to fit for leisure. The three classifications are 'priority freight routes' which have a recognised freight demand; Category A routes where there may be potential for freight subject to further investigation and Category B routes which have little or no freight potential. The Tidal Trent has been designated a Category A route.
- 3.12 A very small part of the Tidal Trent lies within the Plan area. Historically sand and gravel worked from Attenborough Pit, south of Long Eaton, has been transported by barge to the processing plant at Attenborough in Nottinghamshire. However, this Pit will soon be worked out and the future use of water transport to move minerals is therefore considered to be very limited.

## **Environmental Issues and Transport**

### **Air Quality Management Areas (AQMAs)**

- 3.13 Within the Plan area several places suffer from excessive air pollution associated with road traffic, and accordingly have been designated as AQMAs. Currently, 2015, within the Plan area AQMAs are located in Derby City and in

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<sup>26</sup> Canal and River Trust - A Proposed Policy for Waterborne Freight - 2014

Erewash Borough and Bolsover District Council areas. Action Plans are in place within these areas to improve air pollution; the Minerals Local Plan will need to take into account the location and policies of Action Areas and Plans.

### **Noise Action Plan Areas (NAPAs)**

- 3.14 The Noise Action Plan: Agglomerations<sup>27</sup>, published in 2014, applies to 65 agglomerations in England. It replaces 23 Agglomeration Noise Action Plans previously adopted. The following agglomerations, wholly or partly, include Local Authorities lying within the Plan area.

13 Chesterfield/Staveley (Chesterfield BC, North East Derbyshire DC)

18 Derby Urban Area (South Derbys DC, Erewash BC, Amber Valley BC, City of Derby UA)

34 Mansfield (Bolsover DC)

38 Nottingham (Erewash BC, Amber Valley BC)

46 Sheffield (North East Derbys DC)

- 3.15 Work is currently is ongoing to establish 'Important Areas' lying both within and outside Agglomerations where environmental noise impacts are likely to be the greatest and where environmental noise and its effects will need to be managed and reduced where necessary. Management measures may include traffic management schemes where traffic is re-routed away from sensitive receptors or schemes which restrict the type of vehicle e.g. HGVs from accessing a particular road or area. The Minerals Local Plan will need to take into account the location and policies of any Noise Action Plans.

### **Lorry Routing**

- 3.16 In 2005 the Councils, as part of the Derby and Derbyshire Freight Quality Partnership, produced an Advisory Lorry Route Map<sup>28</sup> showing the preferred routes for lorries and indicating low bridges and those with weight restrictions.

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<sup>27</sup> DEFRA Noise Action Plan: Agglomerations, January 2014

<sup>28</sup> [https://www.derbyshire.gov.uk/transport\\_roads/transport\\_plans/transport\\_studies/freight\\_map/default.asp](https://www.derbyshire.gov.uk/transport_roads/transport_plans/transport_studies/freight_map/default.asp)

The Map though only advisory is a means of preventing lorries from using unsuitable roads.

- 3.17 Where necessary, mineral lorry traffic is generally prevented from using unsuitable/sensitive routes through the use of routing agreements with the quarry operator as part of Section 106 agreements.

#### **4 How are Minerals Transported in the Plan Area Now and How is This Likely to Change in the Future?**

- 4.1 Detailed information on the transport of minerals within the Plan area is limited. All minerals are reliant on road transport apart from at large scale long-life limestone quarries where rail is used. This transportation pattern is unlikely to change in the foreseeable future.
- 4.2 In terms of the distance travelled, aggregate minerals tend to travel relatively short distances although they often serve urban areas across the Plan area boundary such as Greater Manchester, Sheffield and Nottingham. Industrial minerals and their resultant products are more valuable and travel greater distances, with some products supplying national and international markets.
- 4.3 The following section describes in greater detail the current and likely future transportation of the principal minerals extracted within the Plan area. In general the scale of mineral working and the subsequent level of mineral traffic are not estimated to increase significantly over the Plan period.

##### **Limestone**

- 4.4 Limestone is the currently the only mineral transported by non-road transport and this is likely to remain the case for the foreseeable future. The last East Midlands Regional Aggregate Working Party survey on transport occurred in 2009 when of the total limestone produced for use as aggregates i.e. 7.2mt,



approximately 71%, was transported by road and 30% by rail.<sup>29</sup> Of the limestone aggregate that was exported i.e. 4.9mt, 58% was transported by road and 42% by rail.<sup>30</sup> Some of the 3mt of limestone produced for industrial uses is also transported to market by rail; however quantities supplied tend to be smaller in a scale which makes rail transport not economically feasible.

- 4.5 Rail transport was to markets outside the East Midlands Region, mainly to the North West and the Yorkshire and Humberside regions. In 2013, there were three active rail facilities in the Plan area, at Tunstead Quarry, Dowlow Quarry and Doveholes Quarry and three inactive rail facilities at Whitwell Quarry, Hillhead Quarry and Hindlow Quarry (this quarry is currently only being used to process mineral from Tunstead).<sup>31</sup> High volume long-life limestone quarries have the greatest potential for transporting mineral by rail.

### **Sand and Gravel**

- 4.6 All sand and gravel extracted from within the Plan area is transported to its markets by road and most is used within 10 - 15 miles of the quarry due to transport costs and competition from alternative sources of aggregates. Only one site, Attenborough Pit, uses water transport, where extracted sand and gravel is barged along the River Trent to the processing plant in Nottinghamshire. The potential for further water transport however is limited and road transport is likely to remain the dominant mode. The relatively small scale operations tend to preclude rail transport.

### **Building stone**

- 4.7 The often remote location of these quarries and the volumes and form of material involved means that transportation of the stone by modes other than road is often impractical and not viable. No building stone quarries are connected to the commercial rail network. The specific properties and value of

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<sup>29</sup> East Midlands Regional Aggregates Working Party Report 2009, Table 10a, Page 69

<sup>30</sup> East Midlands Regional Aggregates Working Party Report 2009, Table 10a, Page 69

<sup>31</sup> East Midlands Regional Aggregates Working Party Report 2009, Page 32

building stone mean that it is often economically viable to transport it substantial distances to where it is required.

## **Coal**

- 4.8 The way that coal is transported to where it will be used depends on the distance to be covered. Coal is generally transported by conveyor or truck over short distances. Trains and barges can be used for longer distances within domestic markets, or alternatively coal can be mixed with water to form coal slurry and transported through a pipeline. Coal transportation can be very expensive – in some instances it accounts for up to 70% of the delivered cost of coal. In the past decade, opencast mined coal from north-eastern Derbyshire was transported to Oxcroft disposal point by road for processing and from there was dispatched by rail for use by power stations. Whilst this facility closed in 2007, it is proposed to safeguard<sup>32</sup> the route of the railway line to encourage any future working to transport the mineral by rail. Currently there are only two active coal sites within the Plan area, at Lodge House Surface Mine, Smalley and Eckington Drift Mine both of which use road transportation.

## **Clay**

- 4.9 Whilst in the past brick clay was consumed in small scale brickworks adjacent to the quarry, today increasing tonnages are transported to large scale automated brickworks for blending purposes and to serve plants with no clay reserves. It is unlikely that this movement of clay will be by any other method than road and that the finished product is usually delivered to the market by road. Brick clay is a high weight and low value commodity and as such transportation affects costs significantly. Within the plan are there are three permitted brick clay sites, all of which use road transport to move the clay. Fireclay has a slightly higher value than brick clay and which means that longer journeys are more economically feasible but usually undertaken by road.

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<sup>32</sup> Towards a strategy for safeguarding minerals related infrastructure, November 2014

## **Gas from Coal Extraction**

- 4.10 The coalification process, whereby plant material is progressively converted to coal, generates large quantities of methane-rich gas which is stored within the coal. Gas can be used for electricity generation or supplied to local industry for use in oilers and kilns. It is mainly transported for use by pipeline which reduces the need for road traffic. There is currently only one abandoned mine methane extraction site that has planning permission within the Plan area, at Whitwell Colliery.

## **Vein Minerals**

- 4.11 Transport of ore in Derbyshire and the Peak District National Park is via road. There are no rail facilities within, between or outside relevant sites serving this industry. It may be difficult to encourage operators to invest in rail freight facilities given the limited tonnage of material involved compared to bulk loads, such as aggregates.

## **5 Developing a Strategy for Sustainable Minerals Transport – Key issues**

- 5.1 The new NPPF introduces a presumption in favour of sustainable development and recognises that transport policies not only have an important role to play in facilitating this, but also in contributing to wider sustainability and health objectives. The NPPF requires the Minerals Local Plan to support a pattern of development, where reasonable, that facilitates the use of sustainable transport options, to reduce the environmental and amenity impacts of transporting minerals particularly, greenhouse gas emissions and congestion.
- 5.2 A key constraint to developing such options for minerals is that due to geological constraints they can only be worked where they are found and, therefore, are not necessarily well located to take advantage of more sustainable modes of transport.

- 5.3 The cost of developing rail or water infrastructure tends to restrict such opportunities to those minerals where larger volumes of material and longer distances make them economically viable. Currently it is only the large scale, high volume, long-life, limestone quarries that use rail transport, where the significant capital costs can be recovered.
- 5.4 The vast majority of movements to and from mineral sites are by road. Realistically heavy goods vehicles are likely to remain the most effective and economic means of transporting minerals and fill material over the Plan period; they provide relatively low costs and flexibility to serve a wide range of local and varied markets.
- 5.5 The Plan needs to encourage and support more sustainable methods of transport such as rail and water, wherever feasible, in order to minimise the environmental and amenity impacts of transporting minerals by road. The safeguarding of existing rail and wharfage infrastructure from sterilisation by other development has an important role to play in the development of alternatives to road transport.
- 5.6 The encouragement of alternatives to road transport for the movement of minerals is an important measure to reduce greenhouse gas emissions and reduce congestion which exacerbates the pollution that impacts on climate change.
- 5.7 Traffic associated with minerals can have a considerable impact on the environment and local communities causing problems such as public safety, noise and vibration, air pollution and visual intrusion. These problems are most severe where heavy good vehicles use roads unsuited to their weight and size, where they pass through sensitive areas and at the access to the site from the public highway. The Plan will need to ensure that any adverse impacts on the environment and local communities from the transportation of minerals are acceptable or can be mitigated.