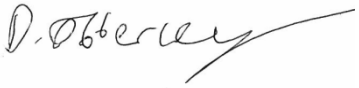
Blyth Transport Study

Study Report

Northumberland County Council

April 2015

Prepared by:  .....
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Introduction

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1 Introduction

1.1 Introduction

AECOM has been commissioned by Northumberland County Council to undertake a Transport Appraisal Study for the Blyth area. The study has been developed with the intention of understanding the traffic and congestion issues affecting the highway network, through the development of a detailed and robust evidence base that considers current and future transport movements. The evidence base will be used to identify particular traffic congestion hotspots across the Blyth area and this will inform the development and subsequent assessment of interventions designed to alleviate the identified challenges.

A recent report from the County Councillor for the Cowpen Ward, highlighted concerns of traffic safety and traffic flow problems on Cowpen Road and suggested four small schemes which were thought may improve traffic flows along Cowpen Road. A scheme to facilitate rear access to Horton Grange Primary and the Dales School, thus improving the flow of traffic along Cowpen Road, is currently in the design stage.

It is however recommended that, due to the planned increase in house building in the Blyth area, a more detailed study of the whole of Blyth is required. The efficient operation of local and strategic routes is an important factor in helping to deliver and sustain a thriving and competitive economy. This is a key objective of the council as set out in its emerging Local Plan and this study constitutes the first stage towards contributing to the achievement of this objective for the Blyth area. On a wider scale, the provision of a well performing transport network across the North is an important factor in contributing towards the establishment of a Northern Powerhouse, which constitutes a key objective of the current government. In order to stimulate economic competitiveness, significant development growth is planned to come forward across the Blyth area as proposed in the council's emerging Local Plan. It is expected that this growth will have the potential to exacerbate existing congestion issues in Blyth and this will need to be considered as part of this study

The requirements of the study are therefore as follows:

- Prepare an evidence base setting out existing and potential future traffic problems within Blyth;
- Develop and appraise a range of options to mitigate the identified problems;
- Set out a programme for the next steps to take preferred scheme/schemes forward to detailed appraisal, design, funding and delivery.

1.2 Report Structure

Following this introductory section, the remainder of the report is structured as follows:

Chapter 2 – Study Area

This chapter identifies the study area and its baseline conditions in terms of land use and demographics. The policy and administrative framework within which Northumberland County Council currently operates is also considered.

Chapter 3 – Transport Network

The existing transport infrastructure across Blyth is set out, alongside analysis of travel patterns, mode share and current and future car ownership levels in Blyth.

Chapter 4 – Transport Problems

Photographic evidence, public transport data and accident data is used to set out the current transport problems in Blyth, in particular on the A193 Cowpen Road.

Chapter 5 – Stakeholder Consultation

This chapter summarises the stakeholder consultation which has taken place as part of this study and identifies those problems highlighted by stakeholders which were not captured in the evidence base.

Chapter 6 – Challenges and Objectives

Individual challenges identified as part of the previous stages of the study are rationalised in this chapter of the report. Study specific objectives are developed to address these transport challenges, which are in alignment with wider policy context and are set within the SMART framework.

Chapter 7 – Interventions and Option Development

A series of transport interventions to alleviate the identified transport challenges and satisfy the study objectives are developed. The interventions are developed across a wide range of transport categories, including soft measures, public transport, active travel and highways engineering.

Chapter 8 – Option Assessment and Next Steps

This chapter provides a summary of the EAST appraisal and sets out the next steps for taking forward the options identified for further appraisal.

Chapter 9 – Conclusions

The findings of the study are summarised in preparation for the potential next stage of the Transport Study.

Study Area

02

2 Study Area

2.1 Introduction

This chapter of the report identifies the study area under consideration, and highlights the area's demographics and the policy context under which the area operates.

2.2 Blyth

Blyth is a coastal town located in the North East of England, adjacent to Tyne and Wear and approximately 10 miles north of Newcastle upon Tyne (**Figures 2.1** and **2.2**). With a population of over 30,000, it is the largest settlement in the county. It is also situated in the South East Northumberland service area, which is the smallest service area in Northumberland. As such, it has a high population density compared to the rest of Northumberland at 951 people per km^2.

Many of the urban areas of South East Northumberland, including Blyth, were built around ship building and the mining industry which has seen a significant decline over the last 30 years. This has led to the area being characterised by high levels of unemployment and considerable pockets of deprivation, ranking it below the national average for many aspects of the index of multiple deprivation. As such, significant out-commuting is observed, particularly to the adjacent conurbation of Tyne and Wear. However, despite the strong linkages between the two areas, the public transport network is limited. Blyth currently has no rail service and bus journey times to neighbouring conurbations are time consuming. The cost of public transport between Blyth and Tyne and Wear is also an issue with high public transport costs restricting access and social inclusion. Therefore, road transport is often the only viable option for residents who need to commute.

At the same time, as the largest settlement in Northumberland, Blyth still constitutes a significant employment base for the local population and in-commuters, and provides homes for people who work, shop and spend outside the town. Indeed, the town is regarded in the Northumberland Local Plan as a 'Main Commercial Centre' due to its good level of retail provision and its role as a community hub for a large population. The main employment zones are located on the northern and eastern edges of the town, with recent housing developments also being located in similar peripheral locations. It is expected that this spatial pattern for future development growth is to continue.

Blyth has a working port (Port of Blyth), at which 1.5 million tonnes of cargo is handled each year. Its strategic location on the east coast of the UK renders it an important service for trade within Europe and beyond and makes it a key employment area within Blyth. Significant development growth is expected to come forward in the immediate vicinity of the port; not least in the form of the Blyth Estuary Strategic Employment Area and this will serve to heighten this area of Blyth as a key employment hotspot, both locally and regionally. It can currently be accessed from both the A193 Cowpen Road and the A1061 Laverock Hall Road although it is acknowledged that the A193 serves the primary route to the port.

Figure 2.1: Wider Context Area

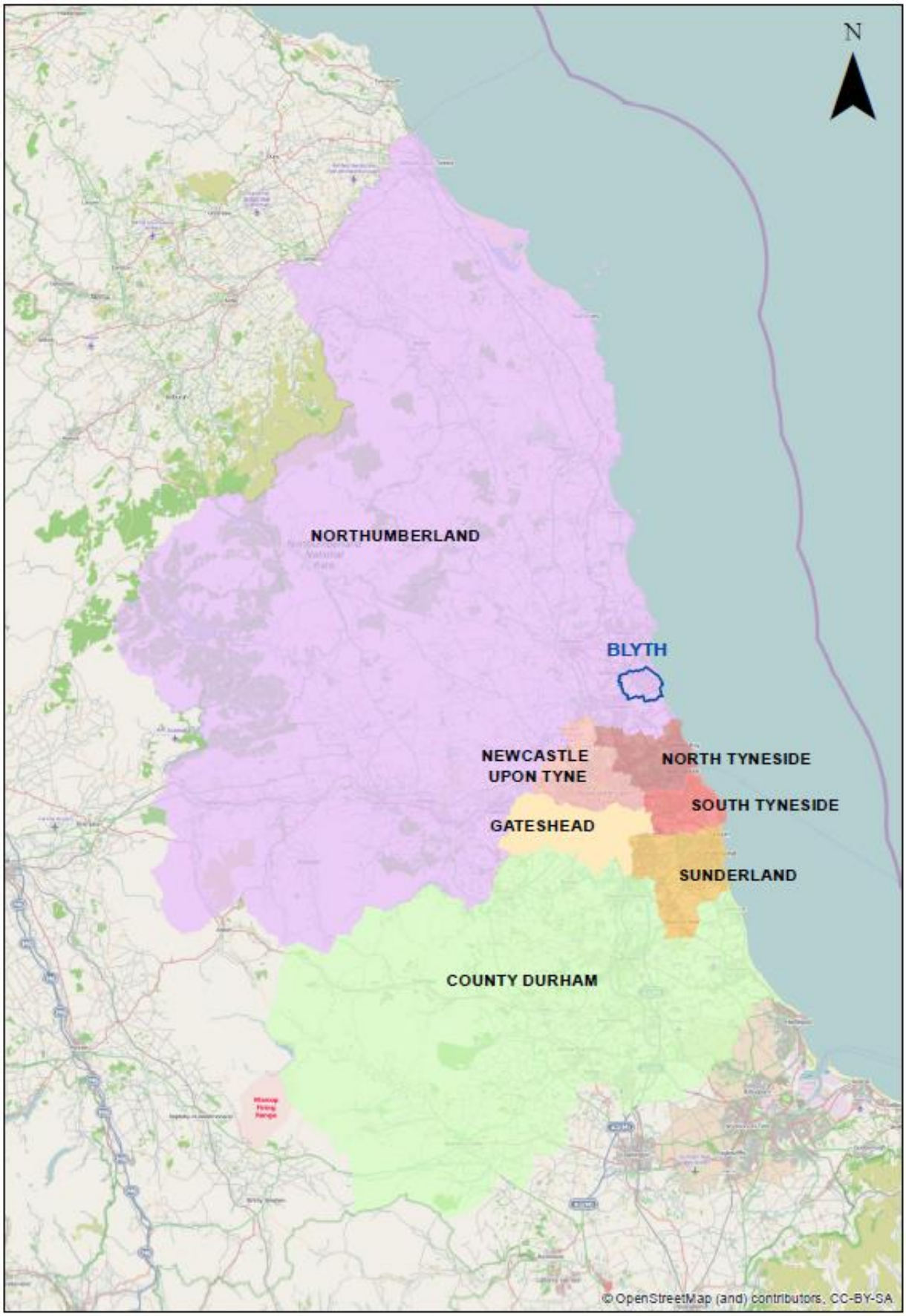


Figure 2.2: Blyth Study Area

2.3 Policy Context

An understanding of the current policy and administrative framework within which Northumberland County Council currently operates is considered important as this informs the context in which the study is required to be situated. National, regional and local policy are briefly described in this section of the report as it is recognised that transport problems have varying degrees of intensity across different spatial scales.

2.3.1 National Policy

A number of national policy documents have been reviewed and are summarised in the section below:

2.3.1.1 Road Investment Strategy (RIS) (2014)

The Government is committed to creating a "Northern Powerhouse" which is predicated on better connecting the north in an effort to enhance economic growth, not only on a regional level but also across the country as a whole.

The RIS sets out the government's vision and plans for the country's major roads and motorways and the expected impacts that significant investment is likely to produce. In total, 127 schemes are identified in the RIS document; of which two include improvements to the road network within Northumberland. These schemes are detailed below:

- A1 Morpeth to Ellingham – link upgrading to dual standard along a 13 mile stretch, connecting the Morpeth and Alnwick bypasses with the dual carriageway near Ellingham to create a continuous, high-quality dual carriageway from Newcastle to Ellingham

- A1 North of Ellingham enhancements – a set of measures to enhance the A1 beyond Ellingham including junction improvements and enhanced provision for cyclists and pedestrians.

Whilst this study is predicated on the local highway network across Blyth, it is important that any potential future local schemes are considered in the context of national directives for growth in the north and other national strategic road improvement schemes. Morpeth Northern Bypass, which is currently being constructed in Northumberland, is predominantly a local scheme but it will provide improved access to the A1 and enhance strategic connectivity to the north of Northumberland and Scotland.

2.3.1.2 National Planning Policy Framework (NPPF)

The NPPF constitutes the Government's overarching framework for planning across England, setting out national planning policies and how these are expected to be applied. A key directive of the framework is that the planning system should do everything it can to facilitate economic growth.

Indeed, an overarching aspect of the NPPF is the Government's "presumption in favour of sustainable development". This agenda sets out that local planning authorities should plan positively for new development and that proposed development that accords with an up-to-date Local Plan is to be approved without delay.

This approach to stimulating development and associated economic growth represents a key element of plan-making and decision-taking and it is within this overarching policy context which NCC is required to operate. There are significant development proposals identified for Blyth set out in the draft Local Plan.

2.3.1.3 Localism Act (2011)

Development growth across local planning authority or county council areas has the potential to have wide-ranging impacts, including on neighbouring administrative areas. With this said, the Localism Act places a legal duty on public bodies, local planning authorities and county councils, such as NCC, to engage constructively, actively and on a frequent basis in order to ensure that developments planned for one administrative area do not have a detrimental impact on the provision of infrastructure (including highways) across neighbouring areas.

This is the "*duty to co-operate*" manifesto as set out in the Act. NCC is required to liaise with neighbouring county councils to ensure that strategic cross-boundary matters are considered and addressed at the plan-making stage. It will therefore be necessary for NCC to liaise with Tyne and Wear to ensure that the development proposed for Blyth can not only be accommodated on the local road network in Blyth, but also that it does not have a negative impact on the local and strategic road network in Tyne and Wear.

2.3.2 Regional Policy

Several key regional policy documents for the North East have been reviewed as it is recognised that any solutions or interventions developed as part of this study will need to be compatible with other policies in the region.

2.3.2.1 The North East Strategic Economic Plan (SEP) (2014)

The document sets out aspiring plans for achieving significant economic growth across the North East Local Enterprise Partnership (LEP) area. This is to be realised through the creation of 100,000 new jobs by 2024, as employment growth that is inclusive, sustainable and entrepreneurial is brought forward. When this figure is applied to Northumberland, it is considered that the County would need to provide around 6,000 to 9,000 additional jobs.

In the context of Blyth, the town is identified as an "*innovation hub*" for the low carbon and renewable energy sectors, with the area around the Blyth Estuary being considered as a potential hotspot for this activity, and as an area to accommodate significant growth. Whilst this is seen as a positive step for the regeneration of Blyth, any increase in economic growth will potentially lead to increased traffic levels.

2.3.2.2 Northumberland Economic Strategy

The current draft Economic Strategy proposes economic growth to achieve the vision by 2025 of a "prosperous Northumberland founded on quality jobs and connected communities". In particular, the Economic Strategy emphasises the economic benefits of the reopening of the Ashington Blyth Tyne Line to passenger transport and the potential for economic growth around the Blyth Estuary. The strategy was approved by full council in February 2015.

2.3.3 Local Policy

2.3.3.1 Northumberland Local Transport Plan 3 (LTP3) (2011)

The Local Transport Plan 3 for Northumberland sets out what the Council wants to achieve over the period 2011 to 2026 and includes long term aspirations for transport.

The Plan is centred on the overall vision for Northumberland, which is identified in the Sustainable Community Strategy as follows:

'To make Northumberland a place that is resilient for the future.'

Five goals have been identified to help try and achieve this vision. These are displayed in the text below:

- Support Northumberland's economic competitiveness and sustainable growth by delivering reliable, resilient and efficient transport networks.
- Minimise the environmental impact of transport by reducing carbon emissions and addressing the challenge of climate change.
- Promote greater equality of opportunity by improving peoples' access to services and facilities.
- Improve transport safety and security and promote and enable healthier travel.
- Ensure that transport helps to improve quality of life for residents, employers and visitors, and protects and enhances the local environment.

For each goal identified above, a number of objectives have been set to focus the local transport plan programme and policies. These objectives are shown in **Table 2.1** against the goal which they are likely to support most.

Table 2.1: LTP3 Goals and Objectives

Support Economic Growth
▪ Improve the performance of existing transport networks in those places that show signs of increasing congestion and unreliability. ▪ Extend the reach of existing network where it is needed to meet growing demand. ▪ Strengthen our networks against the effects of climate change and extreme weather events.
Reducing Carbon Emissions
▪ Deliver sustainable low carbon travel choices.
Improving Access to Services
▪ Improve transport connections to key services and facilities.
Safer and Healthier Travel
▪ Improve safety of the transport network, particularly for vulnerable road users. ▪ Enable and encourage more physically active and healthy travel.
Quality of Life
▪ Improve transport connections within and between communities. ▪ Provide better access to the natural environment. ▪ Improve the integration of transport into streetscapes. ▪ Protect the natural environment, heritage and landscape ▪ Protect the fabric of historic town centres.

The Plan identifies a number of actions to be implemented during the fifteen year period of its existence. Key schemes have been identified and are shown in **Table 2.2** below, alongside progress to date:

Table 2.2: LTP3 Schemes

Scheme	Progress
▪ Consider options for reducing congestion on the A193 Cowpen Road Corridor	Current study
▪ Investigate the development of a major scheme business case for the South East Northumberland Public Transport Corridor	Business case has been developed and scheme is currently going through Network Rail GRIP study
▪ Assess gaps in key services in deprived and isolated areas and develop local accessibility action plans	Work ongoing
▪ Work with partners to progress provision of real time passenger information at key locations in Northumberland	Work ongoing
▪ Develop a core network of walking and cycling routes as part of a prioritised programme of schemes	A number of schemes already implemented. Working ongoing to provide improved routes in town centres and access to public transport interchanges

2.3.3.2 Northumberland Local Plan Core Strategy – Full Draft Plan (2014)

A collection of planning policy documents are brought forward under the Local Development Framework (LDF) and the Local Plan constitutes a key component of the framework.

The new Local Plan for Northumberland will comprise a Core Strategy and a Delivery Document. The Core Strategy will set out the strategic planning policies of the Council and will guide future development and

planning decisions in Northumberland from 2011 to 2031; the Delivery Document will include detailed land allocations and designations, as well as site-specific proposals for the necessary infrastructure, buildings and services to deliver the proposals in the Core Strategy.

The current Draft Plan sets out the spatial vision and objectives for Northumberland, describes the overall strategic approach to growth and proposes draft policy approaches for areas such as the economy, housing and infrastructure.

One of these objectives is predicated on delivering a thriving and competitive economy across Northumberland. Blyth is regarded as having a strategically important employment function within the Local Plan which can contribute to the achievement of this objective.

In particular, Blyth Estuary is identified as a strategic employment area which is prioritised for economic development within the low carbon and renewable energy generation sectors, spread across a diverse range of interconnected sites around the Estuary.

In addition, according to the Local Plan, South East Northumberland, including Blyth, has been characterised by a consistent under delivery of housing in recent years compared to the housing allocations in existing Local Plans. Therefore, the town is identified in the Plan as a key hub for housing growth, with 2,860 dwellings proposed to come forward across the plan period.

Localised traffic congestion in Blyth, and at key highway junctions at peak times, is identified as an issue in the Local Plan. Large scale inward investment and housing growth, as proposed in the new Local Plan, has the potential to exacerbate existing transport issues across Blyth.

With this said, Policy 4 of the draft Local Plan asserts that any development in this area should ensure that "there is no significant adverse traffic impact on the surrounding highway network infrastructure, unless it can be suitably mitigated". At the same time, in alignment with sustainable development principles, it is set out in the Local Plan that development is to be focused in locations which are accessible by public transport, walking or cycling in order to reduce the need to travel by car.

Furthermore, there is also a requirement to restrict urban sprawl and prevent the merging of Blyth with North Tyneside through the retaining of broad Green Belt boundaries.

It is within these policy contexts that economic and housing development growth is to come forward across Blyth and Northumberland.

2.4 Spatial Distribution of Land Use

The spatial distribution of development is an important driver of transport demands and behaviour. This section of the report focuses on the current distribution of population and employment across Blyth in order to better understand the key generators of trips.

In terms of the spatial distribution of employment land use across Blyth, the main employment zones are located on the northern and eastern edges of the town.

The key employment opportunities are centred on the NaREC (National Renewable Energy Centre) and the Port of Blyth with both acting as key sources of employment across the county.

Recent housing developments are also located in similar peripheral locations**. Table 2.3** indicates population densities across Blyth, Northumberland and the North East.

It is evident that the population density per km^2 in Blyth is significantly higher, at 1,952, than across Northumberland and the North East, which have population densities of 63 per km2 and 303 per km2 respectively. This is indicative of Blyth's urban nature and illustrates the need for an efficiently performing transport network to cope with the vehicle trips that are likely to be derived from such density.

Table 2.3: Population Densities across Blyth, Northumberland and the North East

2011	Blyth	Northumberland	North East
Area (km2)	19	5,013	8,573
Population	37,339	316,028	2,596,886
Density (per km2)	1,952	63	303

2.5 Future Spatial Distribution of Development

Future changes in the spatial distribution of development will have a big impact on the operation of the transport network in Blyth. For this reason, where available, information has been gathered on proposed developments across Blyth and the immediate surrounding area.

2.5.1 Housing

Blyth is identified in the new Local Plan as being a hub for housing growth. Indeed, 2,860 dwellings are proposed to come forward across the plan period in Blyth, contributing to the delivery of the 12,540 figure as set out for South East Northumberland. It is intended that significant housing growth will support the rejuvenation and revitalisation of the local area which has been characterised by a consistent under delivery of housing in recent years compared to housing allocations in existing Local Plans. Potential housing locations are shown in **Figure 2.3** overleaf.

In the process of identifying sites for development, the Council is guided by sustainable development principles when considering the identification of sites. These include making “efficient use of land” as prescribed in the NPPF, by using previously developed land and brownfield sites where possible. It is noted that the South East Northumberland Housing Market Area (HMA), which includes Blyth, is closely linked with the Tyneside conurbation to the south, due to its close proximity and good road links. However, it is deemed important in the emerging Local Plan to constrain urban sprawl and prevent the merging of the two areas by maintaining the broad extent of the existing Green Belt boundaries.

Furthermore, the Council is also keen to encourage sustainable development by ensuring that development is focused in locations which are accessible by public transport, or by walking/cycling, thereby reducing the need to travel by car.

2.5.2 Employment

As a ‘Main Town’, Blyth is also regarded as a hub for employment growth. Indeed, Blyth Estuary has been put forward as a proposed strategic employment area and is proposed to accommodate around 220 hectares of land.

It is being actively promoted to the renewable and low carbon energy, advanced manufacturing and offshore sectors, and is regarded as having the potential to become an ‘innovation hub’ in the SEP in this field of activity.

The potential to attract inward investment across this area is supported by a number of business incentives to facilitate investment, which help to distinguish the Blyth Estuary area as a key focus for employment growth.

In particular, nearly 17 hectares of land at East Sleekburn and Blyth Quayside are designated as Enterprise Zones, offering financial assistance to businesses developing within these areas. At the same time, land at Bates Colliery and East Sleekburn (73 hectares) is covered by ‘Local Development Orders’ to 2019 which automatically grant planning permission for certain types of industrial development. The extent of this employment hub is shown in **Figure 2.4**.

The area is also in close proximity to the proposed £65m investment in the Ashington, Blyth and Tyne Line. The reintroduction of passenger facilities to this route will facilitate new investment across this area and encourage sustainable commuting patterns. However, the extent of the proposed employment growth is such that there are likely to be impacts on the local transport infrastructure that need to be considered and appropriate mitigation identified.

Emerging Challenge

Significant housing and employment growth is proposed to come forward across the Blyth area and will impact upon future traffic demands. This has the potential to exacerbate existing transport infrastructure issues.

Figure 2.3: Proposed Housing Development in Blyth

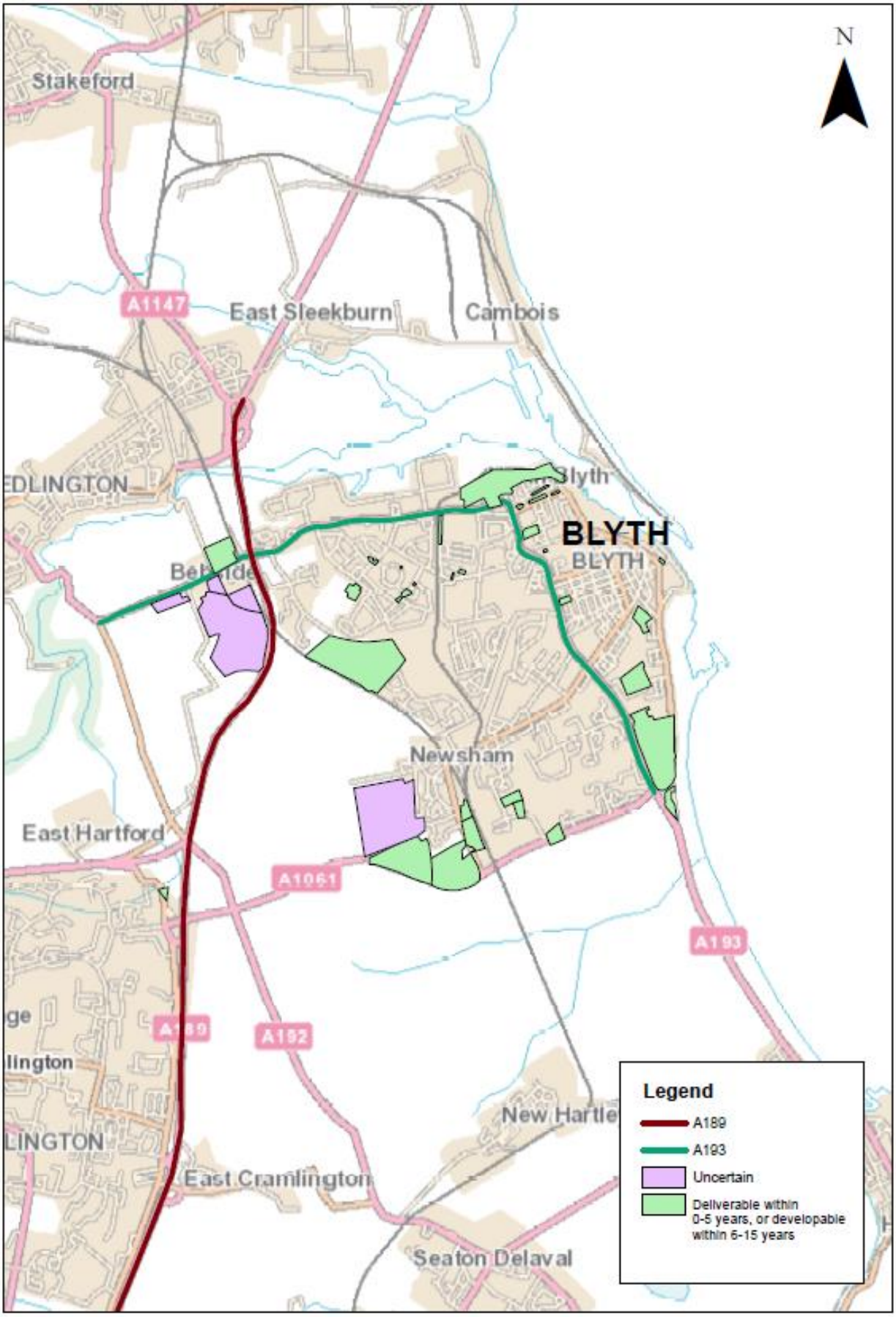
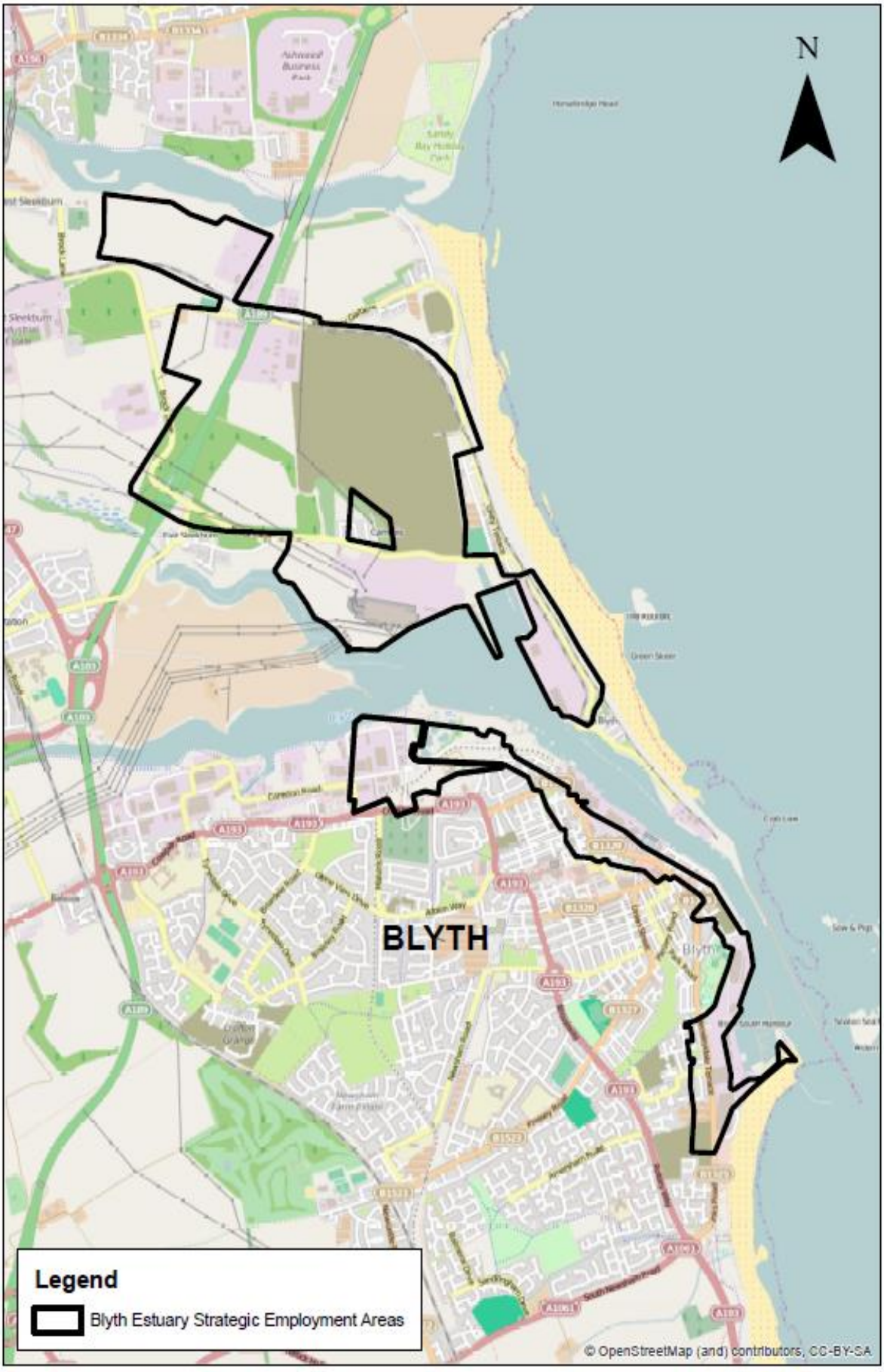


Figure 2.4: Proposed Employment Development in Blyth



2.6 Population Characteristics*[1]

Population trends for the Blyth area will have a direct impact upon future transport demands.

2.6.1 Population Trends

Historically, the North East region has had a declining population. However, a comparison of 2001 and 2011 census data has shown a small increase in the population of Blyth Valley as indicated in **Table 2.4** below.

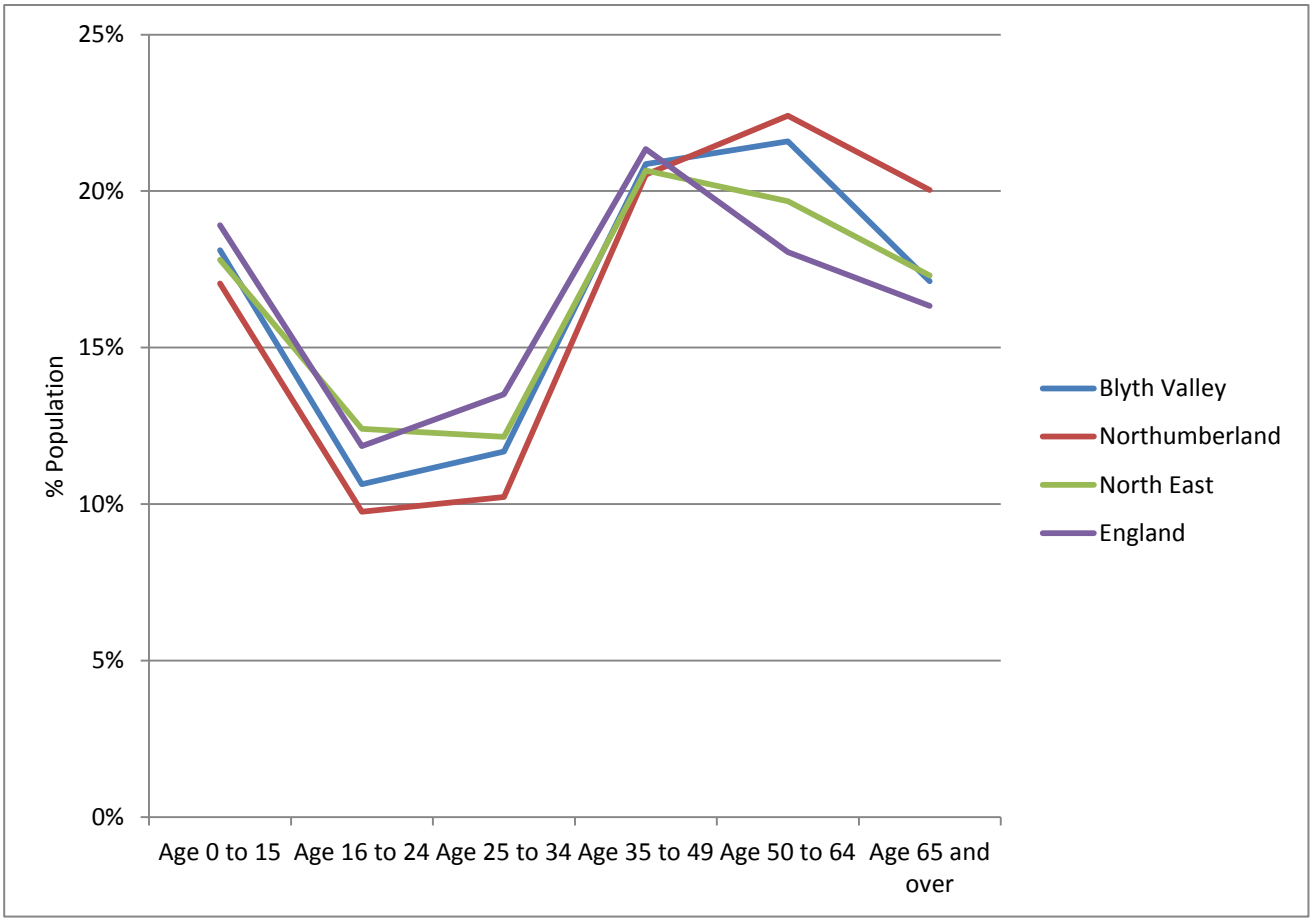
Table 2.4: Census Population

Area	2001 Population	2011 Population
Blyth Valley	81,270	82,174

Source: Census

Any increase in population will have an impact on traffic congestion in Blyth. However, it is the age structure of that population which will have the greatest impact on the transport provision of a region. Of particular issue will be concessionary travel for the young and the elderly, accessibility to key services and facilities, and car ownership levels. 2011 census data has been used to identify the population estimates by age in Blyth Valley compared with regional and national levels. The results are shown in **Figure 2.5** below.

Figure 2.5: Age Structure of Blyth Valley (2011 Census Data)



Source: 2011 Census

*[1] Where different data sources have been used, it has not always been possible to break the data down at the same spatial scale.

The analysis indicates that, whilst the profiles of all spatial areas considered are generally the same, Northumberland and Blyth Valley have a lower percentage of the population in the 16-24 banding compared to England, and a much higher percentage of people aged 50+. The slightly higher proportion of older people in the area will lead to an increasing need for transport provision to health facilities and hospitals, as well as additional funding for concessionary travel.

2.6.2 Future Trends in Population

TEMPro software version 6.2 has been used to assess future trends in population for Blyth. TEMPro is a program that provides projections of growth over time for use in local and regional transport models. It presents projections of growth in planning data, car ownership and resultant growth in trip-making by different modes of transport under a constant-cost assumption. Whilst TEMPro does take account of demographic change and socioeconomic variation of an area, the outputs are dependent on the data underpinning the TEMPro forecasts and therefore any significant changes in local planning policy may not be fully represented in the forecasts.

The outputs of the TEMPro programme for future trends in population of Blyth are shown in **Table 2.5** below**.**

Table 2.5: Future Trends in Population Growth

Area	2015-2031					
	<16	16-64	65+	Households	Jobs	Total Population
GB	7.5%	3.7%	35.4%	14.1%	5.9%	10%
North East	3.5%	-1.3%	33.7%	11.3%	3.3%	6%
Northumberland	0.6%	-5.4%	39.2%	10.6%	-3.5%	5.5%
Blyth	-2.2%	-7.9%	32.4%	6.8%	-2.8%	1.7%

Source: TEMPro v6.2

TEMPro data shows that, between 2015 and 2031, the population of Blyth is forecast to increase by 1.7%. This is significantly lower than the 10% forecast for Great Britain and also lower than the forecasts for the North East and Northumberland.

Whilst TEMPro forecasts only a marginal increase in population across Blyth up until 2031, the proportion of the population aged over 65 is expected to increase by 32.4%. This is broadly consistent with regional and national projections and an ageing population is likely to bring its own pressures on the local transport infrastructure, including an increased need for transport provision to health facilities and hospitals. A higher proportion of elderly residents will also put added pressure on the Council in terms of providing for concessionary travel.

The working age population in Blyth is forecast to decline by 7.9% by 2031, which is in contrast to the projection for Great Britain, where a rise of 3.7% is expected. Similarly, the proportion of the population aged under 16 in Blyth is also expected to fall by 2.2%, whereas an increase of 7.5% is forecast across Great Britain.

A decline in the working age population will have implications on economic growth across Blyth with the contribution people are making to the economy being reduced. It should also mean a reduction in the proportion of people travelling to work.

The data in Table 2.4 also indicates that there is forecast to be a reduction in jobs in Blyth by 2031 of 2.8%. This is consistent with the expected decline in the working age population, but not with the situation across Great Britain where the number of jobs is projected to increase by 5.9%.

Finally, it is noted that the number of new households is due to increase by 6.8% in Blyth, despite the total population only expected to increase by 1.7%. This is not dissimilar from other trends nationally with the number of homes in the North East expected to increase by 11.3% compared to a total population increase of only 6% and an increase of 14.1% in the number of homes across Great Britain, compared with a total population increase of 10%. This increase in the number of new homes above the increase in total population is indicative of the trend for more single occupancy households.

With regard to the 6.8% increase in dwellings across Blyth and their impacts on the local transport infrastructure, this will be dependent upon their location and proximity to the highway network.

Emerging Challenge

The number of households in Blyth is projected to increase by 6.8% to 2031. The location of these houses will impact on traffic conditions.

Transport Network

03

3 Transport Network

3.1 Introduction

This section of the report provides a detailed description of the transport networks currently in place in Blyth, as well as analysing the transport movements which take place. An understanding of traffic movements from within and beyond Blyth is necessary to ensure that the current transport network is efficient in serving its intended purpose. Understanding the means by which people travel will also be essential for developing interventions.

3.2 *General Context*

The following text provides an overview of the available transport modes in Blyth, which are also displayed in **Figure 3.1** overleaf.

3.2.1 Highway Network

Blyth is located on the east coast of England and south of the River Blyth. As such, highway access to the town is currently restricted with entry points only possible from the south and from the west.

The A189 acts as the key arterial route for Blyth, providing the predominant means of access and egress to the town. This dual carriageway link is located to the west of Blyth and stretches from Ashington to the north, and Cramlington in the south where it joins with the A19, which is the nearest section of Strategic Road Network (SRN) to Blyth.

The A193 constitutes the primary route through the town, providing access to key services such as schools and Blyth Hospital. As a single carriageway link, congestion is an issue along this stretch particularly during peak periods.

The A1061 Laverock Hall Road provides the key route into the south of Blyth and serves a number of residential areas. It is also known to suffer from congestion during the AM and PM peak hours.

3.2.1 Rail Network

The nearest railway station to Blyth is approximately 6 miles away in Cramlington. This provides local services on the Northern line, which run on an hourly frequency. Newcastle Central station is approximately 15 miles to the south of Blyth and provides regular services across the country.

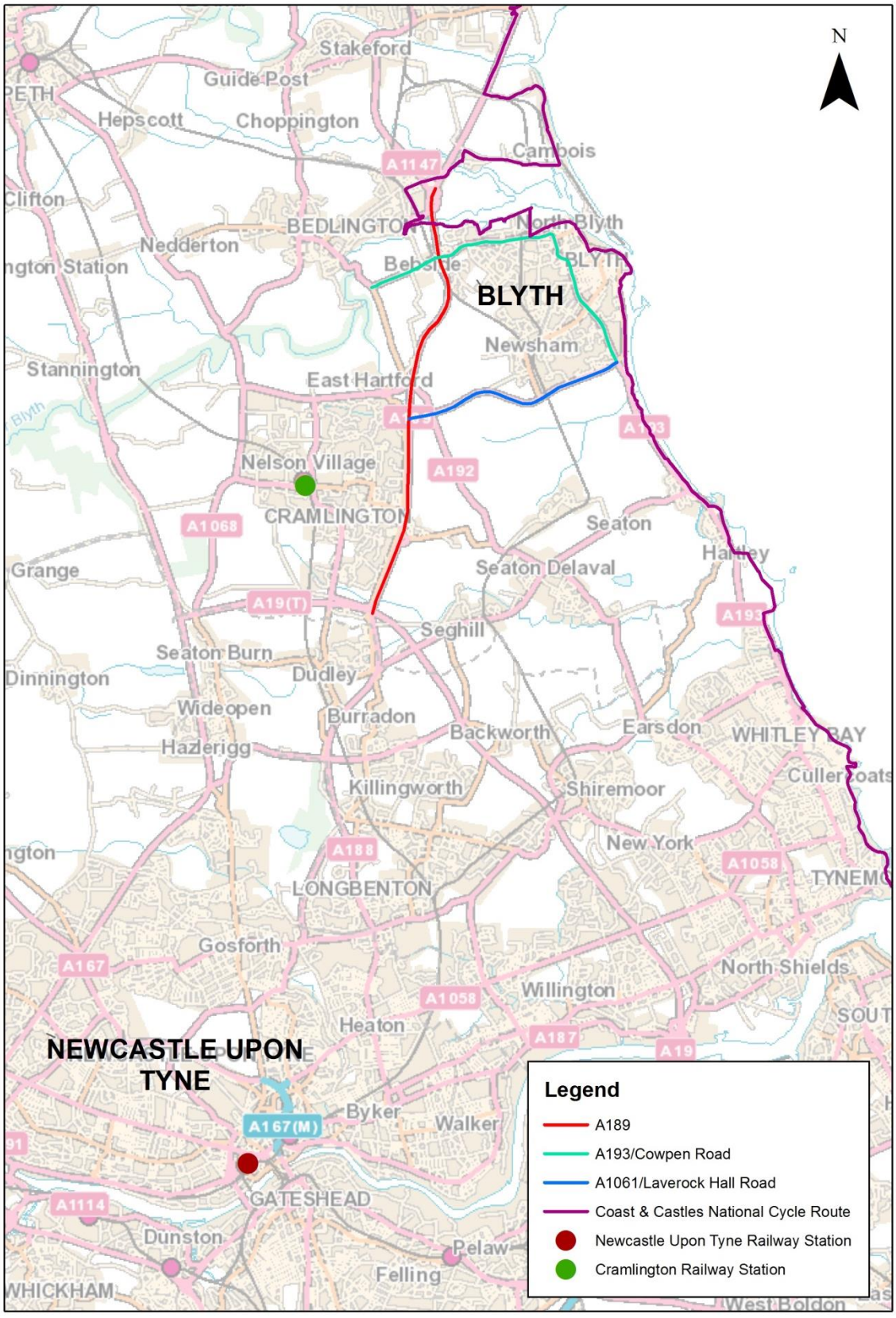
The Ashington, Blyth and Tyne railway is currently a freight link connecting South East Northumberland to Tyne and Wear via the Benton Junction. The link serves the Port of Blyth and is predominantly used to transport coal to/from Lynemouth Power Station. Passenger services are planned to be reintroduced as part of a £65m investment as set out in the draft New Local Plan for Northumberland.

3.2.2 Cycle Network

The National Cycle Route 1, known as the Coast and Castles Cycle Route, runs along the east coast of South East Northumberland, passing through Blyth on its stretch from Tynemouth in the south to Berwick in the north. Due to its relatively flat topography, the route is very attractive to cyclists.

This route interacts with other designated cycle routes across Blyth and it is essential that these routes are maintained in order to encourage enhanced cycle use across the area.

Figure 3.1: Transport Map of Blyth



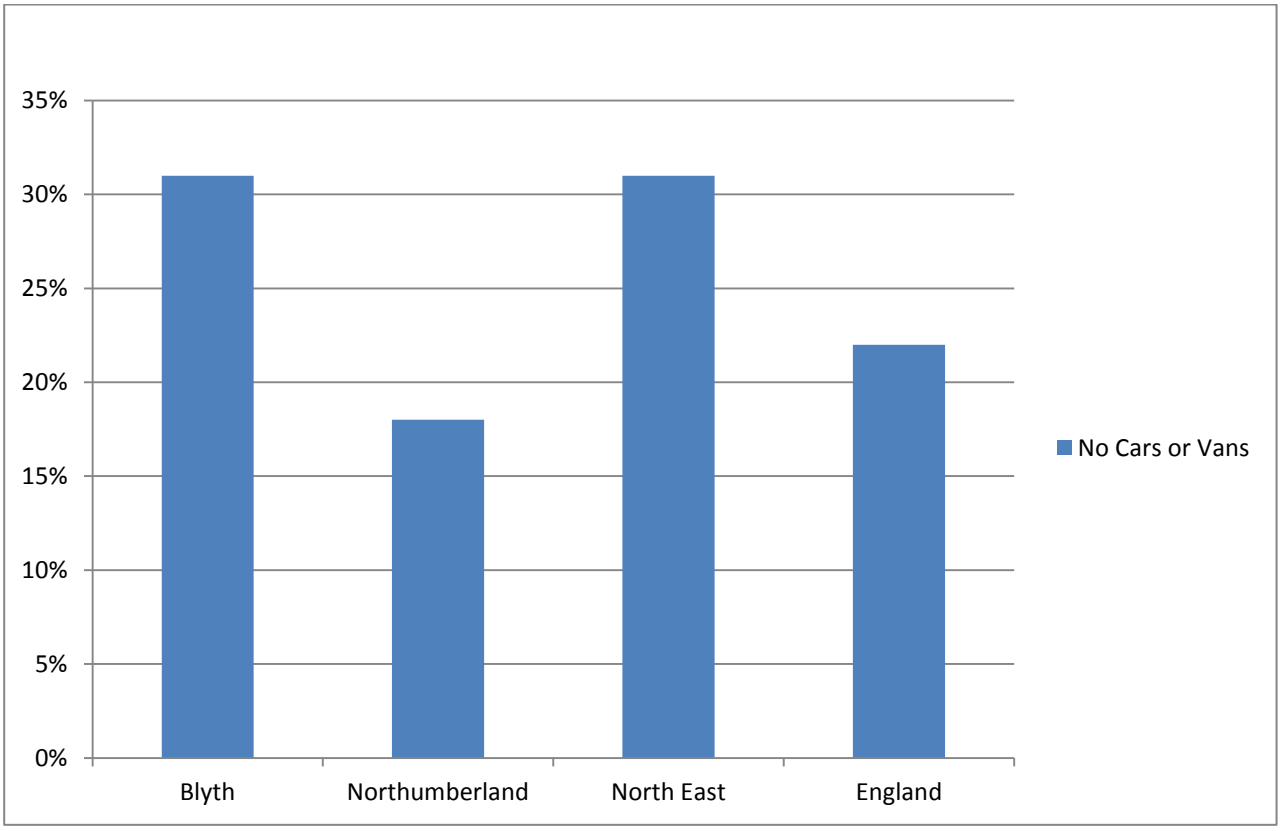
3.3 Blyth Context

In this section of the report, data sources are drawn upon in order to illustrate the important transport features in Blyth, and how these features may differ from the national picture. The transport features illustrated relate to car ownership and modal share.

3.3.1 Car Ownership

Vehicle ownership is an influential factor in determining the choice of travel destinations, the frequency of journeys and the mode of travel chosen, for any trip purpose. Ownership levels, as established in the Census 2011, vary across the different spatial scales, as illustrated in **Figure 3.2** below.

Figure 3.2 Households that do not own a car



Source: 2011 Census

Figure 3.2 indicates that 31% of households in Blyth do not own a car. Whilst this is the same as the proportion in the North East, it is notably higher than the 22% across England and 18% in Northumberland.

This implies that there is a greater reliance on the use of public transport across Blyth than there is nationally. Sufficient provision of public transport is therefore required in order to facilitate movement across the population of Blyth.

If the emerging Local Plan is successful in achieving its objective to create a thriving and competitive economy across Northumberland, and indeed Blyth, it is likely that car ownership levels across Blyth will increase, which could lead to associated heightened impacts on the local transport infrastructure. The projected car ownership levels across the 2015-2031 have been derived from TEMPro and are set out in **Table 3.1**.

Table 3.1: Future Projections for Car Ownership

Area	2015-2031				
	No Car	1 Car	2 Cars	3+ Cars	Total Cars
GB	4.6%	16.1%	16.4%	21.5%	17.2%
North East	-1.5%	14.9%	17.7%	18%	16.4%
Northumberland	-1%	13.7%	12.50%	12.2%	13%
Blyth	-4.2%	10.1%	11.7%	11.6%	10.9%

Source: TEMPro v6.2

Table 3.1 shows that the number of households without a car is set to decrease in Blyth by 4.2% to 2031. This is a larger decrease than is forecast for the North East and Northumberland and is in contrast to the projection for Great Britain, where the proportion of households without a car is expected to increase by 4.6%. At the same time, an increase by 10.9% in total cars is forecast for Blyth. However this is lower than the national projection of 17.2% and the regional forecast for the North East of 16.4%.

A rise in car ownership levels across Blyth could have implications for the local transport infrastructure on two accounts. First, it is likely to increase the number of vehicle trips on the highway network which will exacerbate existing congestion issues and reduce air quality. Second, it is likely to reduce the reliance on public transport which may make some services commercially unviable, especially as journey time unreliability amongst public transport users may increase as a result of heightened levels of congestion.

The challenge therefore, lies in encouraging new car owners to continue to make use of alternative modes of transport in order to manage transport demands and reduce carbon emissions.

Emerging Challenge

Projected increases in car ownership will have a negative impact on traffic congestion and air quality.

3.3.2 Modal Share

A key contributing factor to an inefficiently operating transport network, characterised by high levels of congestion and journey time unreliability, is unsustainable travel patterns. This is often typified by high levels of car/van trips across the network. **Table 3.2** indicates the modal split for journeys to work and provides a comparison across the different spatial scales.

Table 3.2: Mode Share for Journey to Work Trips

Mode	Blyth	Northumberland	North East	England
Works from home	3%	6%	4%	5%
Underground, metro, light rail, tram	1%	0%	3%	4%
Train	1%	1%	1%	5%
Bus, minibus or coach	8%	5%	9%	7%
Taxi	1%	0%	1%	1%
Motorcycle, scooter, moped	1%	0%	0%	1%
Car/van driver	66%	65%	62%	57%
Car/van passenger	8%	7%	7%	5%
Bicycle	2%	1%	2%	3%
On foot	10%	12%	11%	11%
Other	1%	1%	1%	1%

Source: 2011 Census

It is clear that there exist significant modal contrasts across all of the spatial scales, with the proportion of journeys to work being made by car being considerably higher than any other mode of transport.

Indeed, it is in Blyth where the highest proportion of journeys being made by car is observed, with 66% of journeys to work being made by this mode. This is 9% higher than the figure observed across England and marginally higher than the figures for Northumberland and the North East.

A high proportion of private vehicle trips on the network has the effect of increasing congestion and creating unreliable journey times, especially during peak periods.

It is evident that the use of other modes of transport in Blyth is broadly in alignment with the figures reported at the regional and national scales. This is with the exception of the use of rail and light rail modes of transport which make up a smaller proportion of modal share in Blyth compared with the North East and England. This is likely due to the absence of a railway station in Blyth.

Journeys to work on foot are the second most common method of travelling to work in Blyth, Northumberland, the North East and England. However, these journeys still only account for a small proportion of the modal share. It is recognised that whilst this form of journey is only feasible for short distances, it is a wholly sustainable mode of transport and therefore should be encouraged where appropriate.

Across all spatial levels, the take up of public transport is insignificant, with only 8% of journey to work trips being made by bus in Blyth, which is generally consistent with the figures across Northumberland, the North East and England.

Emerging Challenge

Private vehicle trips account for the majority of trips to work across all spatial scales. These types of journeys are unsustainable and have the effect of reducing the efficiency of the highway network.

Emerging Challenge

The proportion of Blyth residents who use public transport to get to work is low; this is especially true when considering train use.

3.4 Travel Patterns

The 2011 Census Journey to Work data has been used to assess origin/destination movements across Blyth.

3.4.1 Census Journey to Work Data

Details regarding journey to work movements for trips originating or terminating in Blyth have been sourced from 2011 Census data. **Table 3.3** highlights origin journey to work trips to Blyth.

Table 3.3: Journey to Work Trips to Blyth

Origin	Total	Percentage
Blyth	4,782	50%
Northumberland	3,177	33%
North Tyneside	739	8%
Newcastle upon Tyne	388	4%
South Tyneside	75	1%
Gateshead	158	2%
County Durham	74	1%
Sunderland	67	1%
Rest of UK	113	1%

Source: 2011 Census

The table indicates that half of the trips to Blyth are internal local trips in the sense that they stay within Blyth. A further 33% of trips originate from Northumberland, whilst the remaining trips are from nearby cities and conurbations including Newcastle upon Tyne and North Tyneside. Only 1% of trips are accounted for by national movements.

Table 3.4 displays the data for journey to work trips from Blyth.

Table 3.4: Journey to Work Trips from Blyth (2011 Census Data)

Origin	Total	Percentage
Blyth	4,782	34%
Northumberland	3,719	27%
North Tyneside	2114	15%
Newcastle upon Tyne	2047	15%
South Tyneside	450	3%
Gateshead	239	2%
County Durham	137	1%
Sunderland	117	1%
Rest of UK	417	3%

Source: Census

It is clear from Table 3.3 that the proportion of internal trips is lower owing to the higher amount of journey to work trips being made from Blyth to other employment areas. In particular, 27% of commuters travel from Blyth to elsewhere within the Northumberland County, whilst a combined total of 30% of trips travel from Blyth to the employment hubs of Newcastle upon Tyne and North Tyneside.

Therefore, it is evident from the two tables that there are a significant amount of internal trips being made across Blyth to travel to work. Given that Table 3.2 indicates a high percentage of people use the car to get to work, this is likely to be a significant contributing factor to congestion and journey time unreliability across Blyth and especially during peak periods. As the main access route through Blyth, the A193 Cowpen Road in particular, experiences significant volumes of traffic in both peak periods.

With significant employment growth planned to come forward across Blyth during the new Local Plan period, it is expected that both the proportion of internal journey to work trips and the proportion of commuters travelling to Blyth from other towns, cities and conurbations, will increase. This would have the effect of further increasing traffic volumes on the local highway network and exacerbate existing congestion issues.

Owing to the high proportion of internal trips, there could be scope for measures to be implemented to encourage the take up of more sustainable modes of transport such as walking and cycling, which currently account for a very small proportion of modal share across Blyth as indicated in Table 3.2. This would have the effect of reducing vehicle trips and thus, improving the efficiency of the transport network.

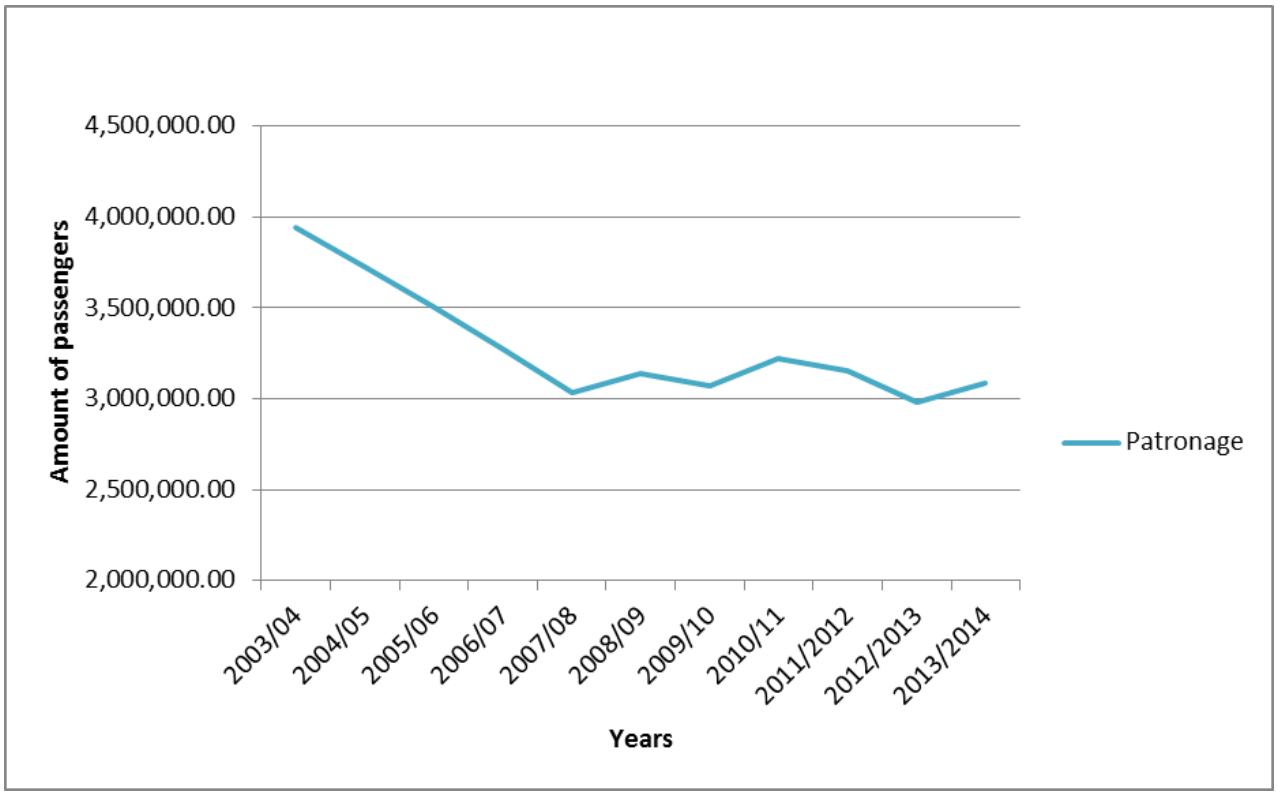
Emerging Challenge

There are a significant proportion of internal journey to work movements across Blyth, which places pressures on the local highway network. This situation has the potential to be exacerbated in the future owing to the significant development growth planned to come forward in Blyth, as set out in the new Local Plan

3.4.2 Public Transport Usage

ARRIVA is the main public transport operator in Blyth. They have provided bus patronage figures for Blyth Valley, which are presented in **Figure 3.3** below for the period 2003-2014.The trend shows that bus patronage has declined significantly between 2003 and 2014, although has been relatively stable since 2007/08. Indeed, in 2003/04, around 4,000,000 passengers used the Arriva Bus compared to 3,100,000 in 2013/14.

Figure 3.3: ARRIVA Bus Patronage



Emerging Challenge

A continuation of bus patronage decline will put additional strain on the highway network as more people use the private vehicle

Transport Problems

04

4 Transport Problems

4.1 Introduction

This section of the report explores the problems that occur regularly on the transport network. Travel by all modes is considered and factors such as congestion, accessibility, travel time, delays, cost and road safety are identified.

4.2 Highway Congestion

Highway congestion is defined as delay experienced on journeys at peak times that would not otherwise be experienced at other times of the day. It can impact on the economic performance of an area and quality of life, as well as contributing to climate change.

4.2.1 Local Highway Congestion

There currently exists a lack of suitable traffic data across Blyth in order to be able to perform a robust and quantitative assessment of the transport problems in Blyth. ATC data does exist but this is only available by hour and assesses the flow over a detector rather than queued traffic. A two week period of data has been obtained from Arriva Bus Company in order to indicate the extent of delays along the A193 and this data is examined within this section. However, the majority of the evidence is reliant upon stakeholder consultation and the analysis of photos which have been taken on site.

4.2.2 Photo Analysis

Photos were taken on site in January 2015 on a neutral weekday during the AM and PM peak periods. An analysis of these photos indicates a range of transport problems which exist along the A193 Cowpen Road as described in the section below.

Figure 4.1: Queuing on A193 Cowpen Road EB, through the Cowpen Road / Chase Farm Drive roundabout and extending back to the A189/A193 junction

There are a variety of key services located along Cowpen Road including an ASDA supermarket, Cowpen Industrial Estate, Horton Grange Primary School, The Dales School and various pubs and shops. In both peak periods, demand along Cowpen Road is high as vehicles route to access and egress these services. This can lead to significant congestion and queuing as indicated in Figure 4.1. Traffic congestion can also lead to a poor safety record along the highway network as illustrated in a later section of this report.

Stakeholders also highlighted that congestion is not just a problem in the peak periods but issues exist on the A193 Cowpen Road throughout the day. Traffic congestion is also a problem on a Saturday as people are using the road to access the retail facilities.

Figure 4.2: Queuing on A189 SB off slip and the impact on public transport services

Significant congestion at the A189/A193 junction leads to queues on the A189 off slips. The A189 is a key arterial route through South East Northumberland and queuing back onto the mainline would significantly impact upon its operation. The congestion at this junction also impacts upon public transport services, leading to delays, unreliable journey times and a poor customer experience.

Figure 4.3: Traffic queuing on the A193 at the Coniston Road signalised junction

Figure 4.4: Traffic queuing on the A193 at the Tynedale Drive signalised junction

Signalised junctions at A193 / Coniston Road and A193 / Tynedale Drive are located approximately only 70m apart. The close proximity of these signalised junctions can mean that during peak periods, traffic being held at the red light on the eastbound approach along Cowpen Road at the A193 / Tynedale Drive junction, tails back to the A193 / Coniston Road junction. Despite the lights being on green at the Coniston Road junction, eastbound traffic is still unable to pass through the signals due to the extent of the queues.

When discussing the junction with stakeholders, it was the opinion of some stakeholders that queuing on Tynedale Drive was exacerbated by traffic calming on possible alternative routes.

Figure 4.5: Further queuing at Tynedale Drive

Although there is evidence of significant queuing on Tynedale Drive, the opposite is true of Coniston Road, Site observations show that the Coniston Road approach appears to get a noticeable period of green time regardless of whether there is still demand. This is illustrated in **Figure 4.6** below.

Figure 4.6: Lost green time on Coniston Road

There are a significant number of pedestrian crossings along the A193 Cowpen Road. Whilst this enhances pedestrian accessibility and connectivity along the route and provides a safe mechanism for crossing the road, the significant number, and amount of green time, can have an impact on the free flow conditions along the network, resulting in queuing. This is illustrated in **Figure 4.7** below.

Figure 4.7: Queuing traffic at pedestrian crossing outside school

It was also observed on site, that right turning traffic into the schools on the A193 Cowpen Road, disrupts the flow of traffic.

Figure 4.8: On-street parking for dropping off

Figure 4.9: On-street parking

Figure 4.10: Parking in the bus stop outside Horton Grange Primary School

Parking is a significant issue along Cowpen Road due to The Dales School and Horton Grange Primary School being located along the route. On-street parking is common practice as indicated in **Figures 4.8**, **4.9** and **4.10**. This serves to reduce the width of the footpaths which can become congested at peak times with children walking to school. As a result, this can have a negative impact on safety and well-being. At the same time, as the parked vehicles seek to regain access onto Cowpen Road, this has an impact on the traffic flow of the network.

Figure 4.10 indicates vehicles parked in the bus stop outside Horton Grange Primary School during the AM peak period. Not only does this also contribute to congestion with the parked vehicles re-joining Cowpen Road, but also the parked vehicles can make the stop inaccessible for buses and lead to journey time unreliability for the bus service. There could also be issues with regard to safety, with children potentially exiting the public transport vehicles onto the highway network. This indicates that parking and access arrangements to the schools may be inadequate and are having a negative impact upon congestion along Cowpen Road.

Figure 4.11: Pedestrian crossing on Chase Farm Drive close to junction with A193 Cowpen Road

The pedestrian crossing on Chase Farm Drive is approximately 20m offset back from the junction with the A193 Cowpen Road. This is a commonly used crossing with the presence of ASDA supermarket, and the proximity of the crossing to the junction frequently leads to vehicles queuing back onto the roundabout during both peak periods. This negatively impacts on the operation of the junction.

Figure 4.12: HGVs using A193 Cowpen Road to access industrial estate

The Cowpen Industrial Estate is accessed from the A193 Cowpen Road. This is a large industrial estate which is served by HGVs at all times of the day. Therefore, a significant volume of HGV traffic use Cowpen Road to access the estate, having a negative impact on congestion, air quality and noise levels.

The problems shown in the previous photographs are focussed on the A193 Cowpen Road as these problems are clearly evident when going out on site at any point throughout the day. However, stakeholders have also highlighted that severe congestion is observed on the A1061 Laverock Hall Road at peak times during the journey to work period. Arriva highlighted that buses do not use the bus only link on Old Laverock Hall Road because they find it difficult to obtain gaps in traffic to exit the junction onto the A1061. Residents have also cited similar issues for exiting residential streets along this road.

Emerging Challenge

The photo data indicates there are numerous transport problems occurring along the A193 Cowpen Road. These range from route design issues to capacity issues. The problems results in significant congestion and queuing during peak periods.

4.3 Public Transport Delays

Journey time data has been obtained from Arriva Bus Company for a two week period between 5th-18th January 2015. Peak period data on the neutral days within this period has been extracted and used to analyse journey time delays for two bus services which use the A193 Cowpen Road corridor. The routes of these services and their stops are highlighted in **Figure 4.13** overleaf.

The following tables indicate the delays between the different stops for each service.

Table 4.1: Percentage of delayed journeys for Service 1 during both peak periods in both directions

Service 1 Eastbound	AM Peak	PM Peak
Bebside to Cowpen Road	11%	10%
Cowpen Shops to North Farm	6%	10%
North Farm to Blyth Bus Station	0%	0%
Service 1 – Westbound	**AM Peak**	**PM Peak**
Blyth Bus Station to North Farm	12%	10%
North Farm to Cowpen Shops	10%	7%
Cowpen Road to Bebside	18%	12%

Figure 4.13: The routes of two Arriva bus services in Blyth

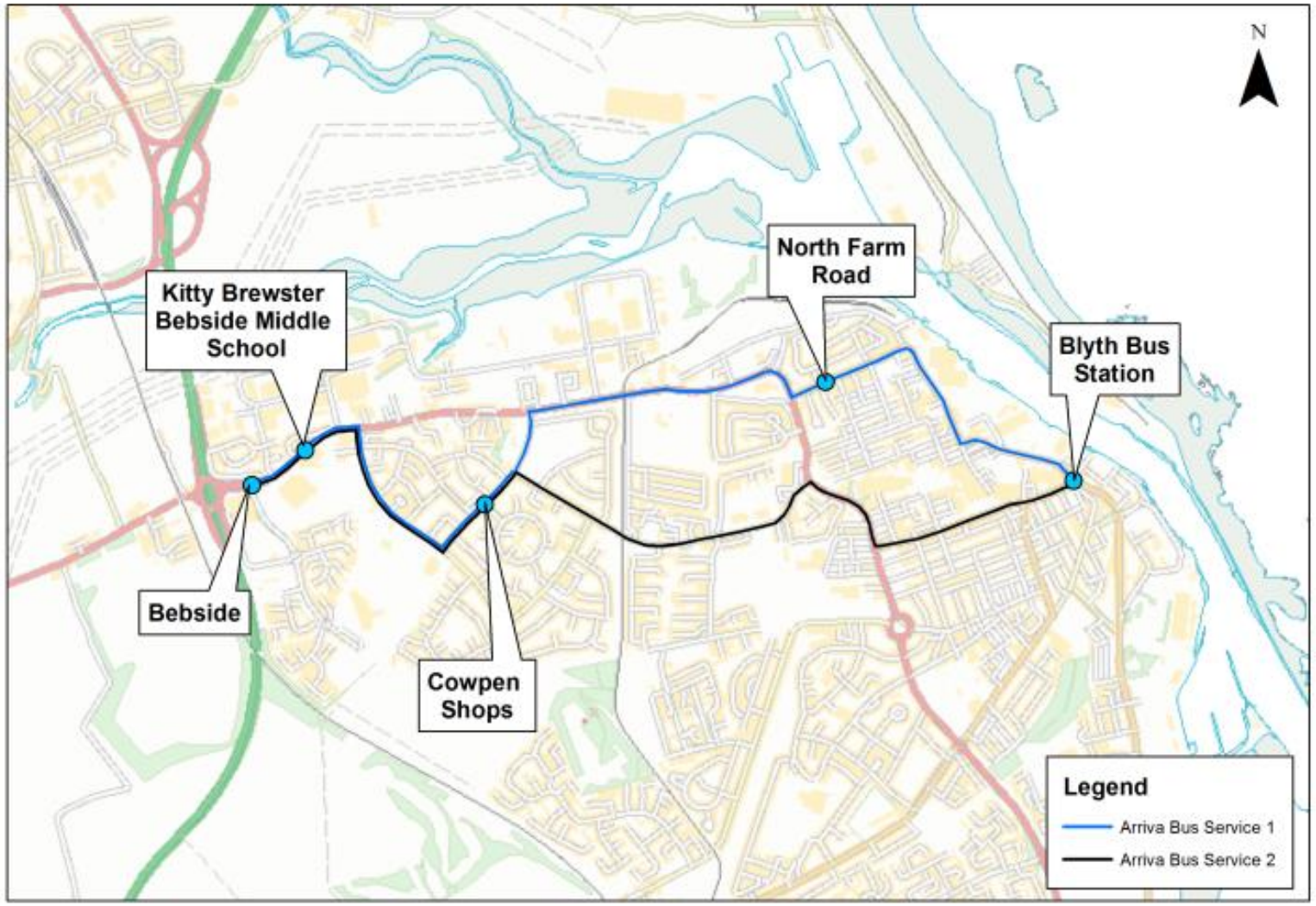


Table 4.2: Percentage of delayed journeys for Service 2 during both peak periods in both directions

Service 2 Eastbound	AM Peak	PM Peak
Bebside to Cowpen Road	12%	6%
Cowpen Shops to Blyth Bus Station	8%	26%
Service 2 – Westbound	**AM Peak**	**PM Peak**
Blyth Bus Station to Cowpen Shops	26%	12%

Table 4.1 indicates that the percentage of delayed journeys for Service 1 travelling in both directions is highest on the stretch between Bebside and Cowpen Shops during both peak periods. This stretch includes the section of Cowpen Road which has access to the industrial state and two schools, and is known to suffer from significant congestion. By contrast, along the eastbound section of Cowpen Road between North Farm stop and Blyth Bus Station, no services reported delays to their scheduled timings during the two week period analysed. This provides a clear indication of where the specific congestion hotspot is located along Cowpen Road and allows for mitigation options to be focused on the western section of Cowpen Road as a result.

In relation to Service 2, Table 4.2 indicates that the most significant delays in the AM peak occur on the westbound approach from Blyth Bus Station to Cowpen Shops; the PM peak shows high levels of delay in the reverse direction on this section of road. This indicates significant journey to work movements out of Blyth in the AM peak and then returning to Blyth in the PM peak. It is considered that the substantial employment growth expected to come forward in Blyth may help to reduce traffic flows out of Blyth in the AM, and vice versa in the PM, which may help to improve journey time reliability for the bus service if local residents can be encouraged to travel sustainably.

Similar percentages of delays are reported for the Service 2 between Bebside and Cowpen Shops stops as are reported for Service 1 in the AM peak period, further indicating the fact that this section of Cowpen Road suffers from congestion and delays.

Emerging Challenge

Arriva bus services experience a high proportion of delayed services along the A193 Cowpen Road, largely between its junction with the A189 and Tynedale Drive. Within this section, there are accesses to the industrial estate and two schools, therefore creating significant volumes of traffic.

4.4 Travel Cost

Modal choice is generally determined by availability and cost, amongst a number of other variables. Research has suggested that the cost of public transport is often perceived as being high, and can act as a deterrent to use, particularly for those seeking employment and those in lower income groups.

An exercise has been undertaken to determine the cost of travel between Blyth and Newcastle City Centre as a key employment and service destination. The focus is to determine the cost of travel by car, bus and rail, where available, and considers financial costs incurred to an individual, rather than including a value of time component.

Table 4.3 below indicates the costs of travel by the three aforementioned modes on a return journey from Blyth to Newcastle City Centre.

Table 4.3: Cost of a Return Journey from Blyth to Newcastle City Centre

Mode of Travel	Cost of a Return Journey
Car	£7.05
Bus	£7.00
Rail (Cramlington)	£5.90

The cost of car travel includes vehicle operating costs, parking charges in Newcastle City Centre and is based on 2012 cost. The bus cost is based on a day return ticket. The nearest train station to Blyth is Cramlington and this cost is also based on a day return ticket. The figure does not include the cost of travel from Blyth to Cramlington railway station which is roughly 6 miles. No parking charges apply at this station but proposals are in place to implement car parking charges in the near future.

The table indicates that rail is the cheapest mode of travel to Newcastle. However, this is somewhat misleading as does not account for the cost of driving between Blyth and Cramlington. With regard to the travel by bus and by car, it is only £0.05 cheaper to travel by bus. Due to the convenience of travelling by car, it is likely that bus ticket prices would need to be made much cheaper in order to encourage private car users to change their travel patterns to that of using the bus.

Emerging Challenge

Return journeys to Newcastle from Blyth using the car (including parking costs) are only £0.05 more expensive than using the bus. In order to encourage a modal shift, it is likely that bus tickets would need to be made significantly cheaper.

4.5 Public Transport Accessibility

To gain a greater understanding of the accessibility issues facing Blyth, online journey planners have been used to determine journey times by public transport for movements to key employment sites across the North East. The online journey planner 'Traveline' has been used to assess access to employment as this will be a key determinant for economic growth across Blyth. Whilst the list of employment sites is by no means exhaustive, it does give some insight into the accessibility issues facing Blyth. Accessibility has been assessed during the AM peak on a neutral weekday in April, with the outputs set out in **Table 4.4**

Table 4.4: Public Transport Journey Times (minutes) to Key Employment Sites

Origin Destination	Newcastle City Centre	DSS Longbenton	Silverlink and Cobalt	Regent Centre	Team Valley
Blyth	56	92	89	104	121

All public transport journeys to these sites are required to be made using either the coach or the bus as there is currently no railway station in Blyth. Table 4.4 indicates that all of the journeys take in excess of 50 minutes, and all but one of the journeys take at least one and a half hours. Therefore, this indicates that journey times to key employment sites from Blyth using public transport are significant. Interchanges are often required throughout the day, thus further impacting on journey times and having a negative impact on journey experience. Research suggests that a seamless public transport journey is normally preferred.

Emerging Challenge

Journey times using public transport from Blyth to key employment sites across the North East are significant. This is an indication of poor accessibility from Blyth to key employment areas.

4.6 Road Safety

Accident data has been sourced from TADU (Traffic and Accident Data Unit) for the Blyth area to understand if there is a safety issue which is impacting on transport problems. The data shows that there were a total of 577 accidents over the period 2009-2013. 508 of the accidents were slight, 63 were serious and 6 were fatal.

Slight accidents are widespread throughout Blyth as illustrated in **Figure 4.14**. In particular, clusters are identified at the A189/A193 and A189/A192 junctions and at Broadway Circle. Furthermore, slight accidents along the A193 Cowpen Road are prevalent, particularly to the immediate east of the A189/A193 junction.

With regard to serious accidents, **Figure 4.15** indicates that there is a particular concentration of accidents along the A193 Cowpen Road. This road is characterised by high volumes of traffic which can have a negative impact upon road safety.

In terms of fatal accidents, three of the six incidents that occurred between 2009-2013 were located to the immediate south of the A189/A192 junction.

Emerging Challenge

Accidents are more prevalent on particular sections of road in Blyth, most notably along the A189 and A193

Figure 4.14: Slight Accidents in Blyth (2009-2013)

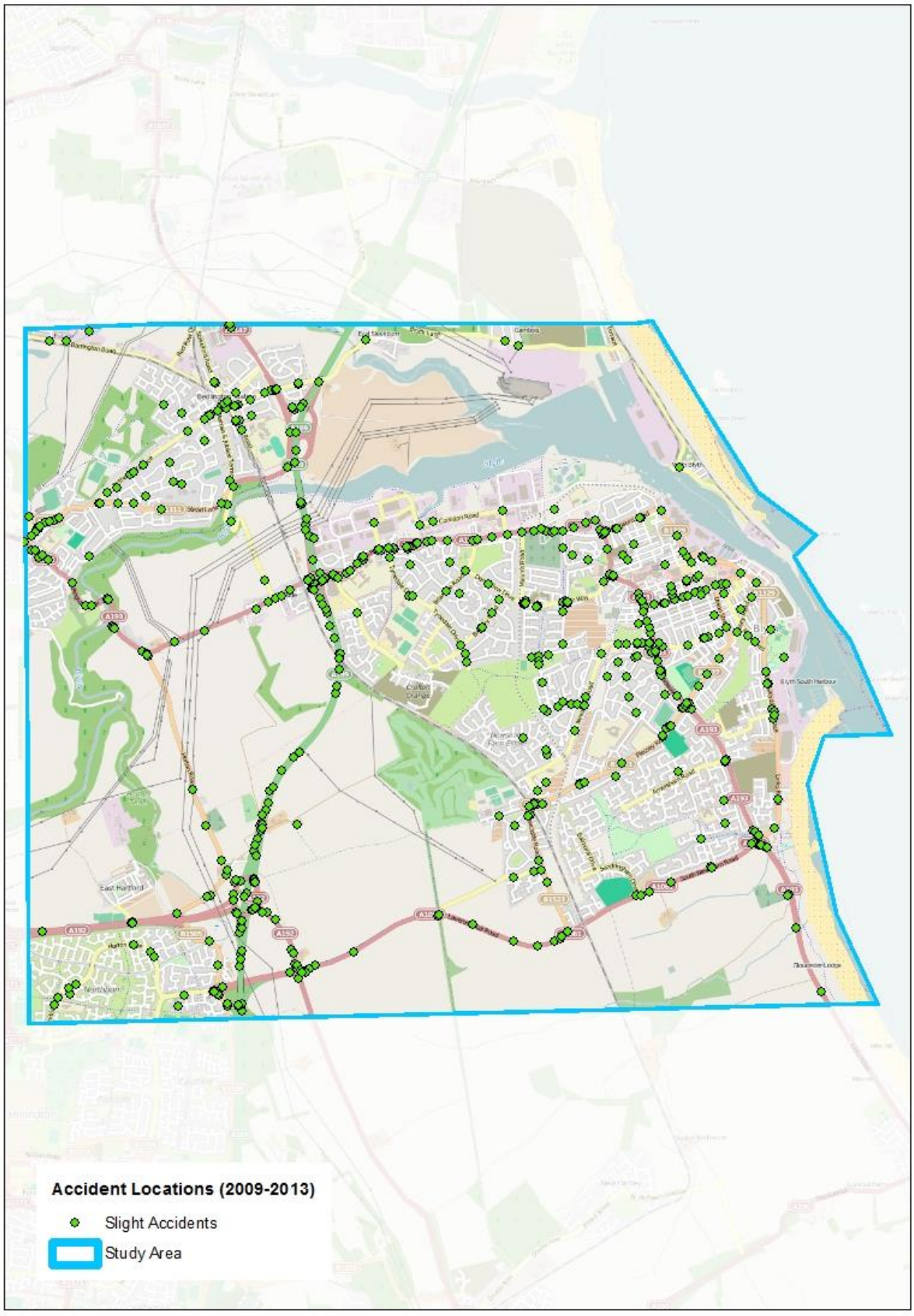
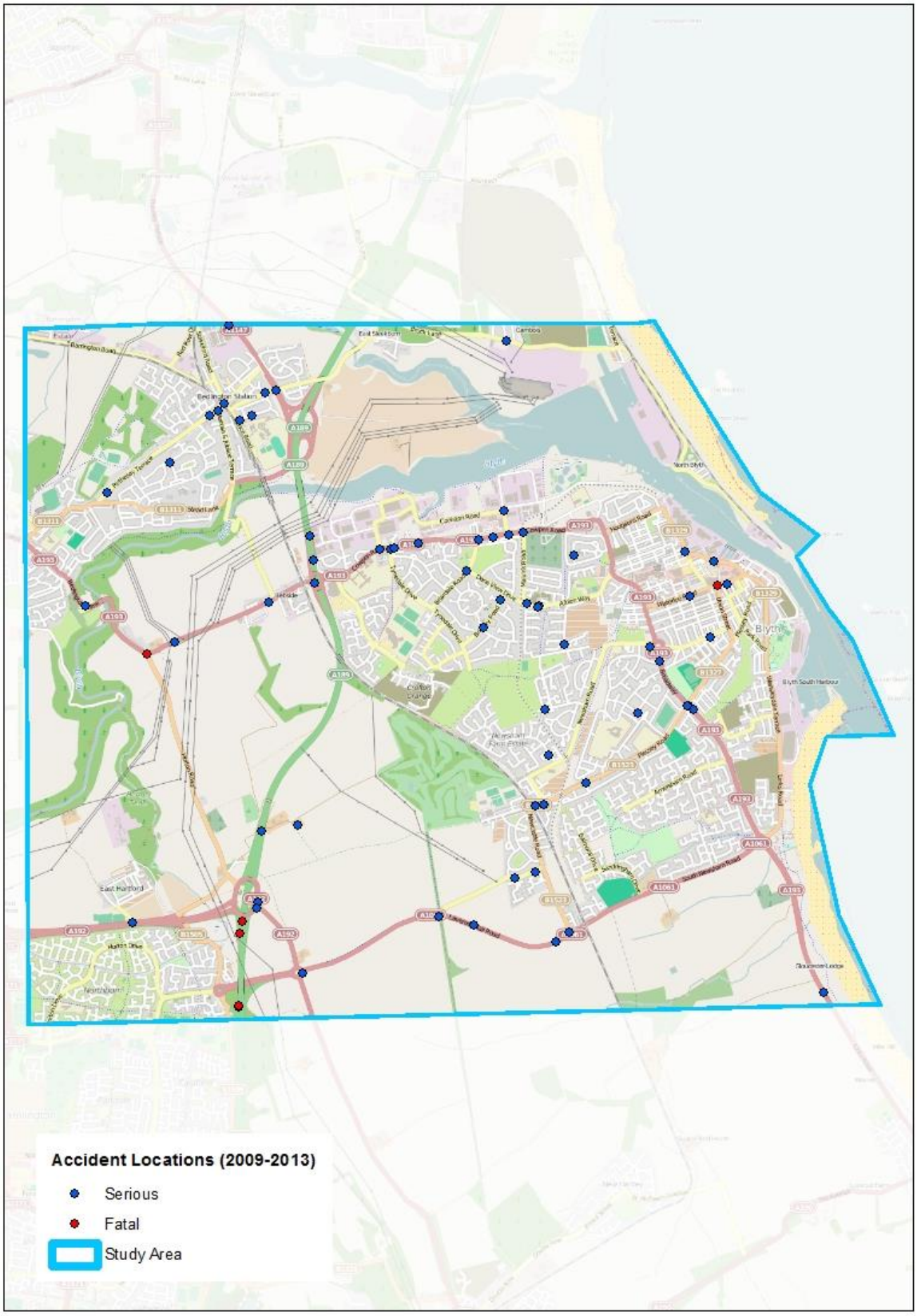


Figure 4.15: Serious and Fatal Accidents in Blyth (2009-2013)



Stakeholder Consultation

05

5 Stakeholder Consultation

5.1 Introduction

A fundamental aspect of this study has been to engage with stakeholders and gather their views on the transport problems in Blyth. This is a core requirement when developing transportation schemes that runs through each of the different stages of the process, including setting objectives, option generation and sifting, as well as validation of the key appraisal findings. Consultation has been undertaken with the local authority, local councillors and wider stakeholders in the form of stakeholder workshops. The detailed analyses described in this report have been specifically informed by these stakeholder discussions.

5.2 Stakeholder Workshops

Stakeholder workshops were undertaken on Thursday 12th March 2015 at the Briardale Community Centre in Blyth. They were well attended by a broad range of stakeholders. The purpose of the workshops was to seek the views of stakeholders on the current and future problems surrounding transport in Blyth, the key challenges which need to be addressed and the transport interventions which could address these challenges. The key objectives of the workshops were as follows:

- To inform stakeholders about the study being undertaken;
- To seek the opinions of stakeholders on whether the key challenges around transport in Blyth have been identified;
- To understand whether stakeholders thought the objectives going forward are relevant;
- To identify transport interventions which would meet these objectives;
- To inform stakeholders about the next steps in the study.

The workshops started with a number of short presentations from the study team to introduce stakeholders to the project and update them with the progress that has been made to date. The presentations were as follows:

- **Introductions**: Stuart McNaughton from Northumberland County Council gave a short presentation on the study which is being undertaken and the purpose of the workshop;
- **The Blyth Congestion Study**: Gemma Paget from AECOM gave a presentation on the study process from evidence base through to prioritised list of options;
- **The Story So Far**: Gemma Paget from AECOM presented the findings of the evidence review report and described how the challenges have been used to frame study specific objectives.

Following on from the initial presentations, stakeholders were split up into smaller groups and took park in two breakout sessions. The tasks for the two sessions were as follows:

- To discuss whether the evidence review presented identified all of the transport challenges which are currently evident in Blyth;
- To discuss which transport challenges would address the challenges and deliver the objectives of the study.

5.3 Stakeholder Findings

Generally, the problems identified in the stakeholder workshop regarding transport problems in Blyth are those already reported elsewhere in this study. A number of issues not covered by the AECOM evidence base were discussed and these have been taken into account when developing the long list of interventions. The workshops concluded the following additional transport problems:

- There is a significant problem of traffic congestion on the A1061 Laverock Hall Road during the AM and PM peak hours. This is not well evidenced in the data presented in the evidence review. Bus services do not use the Laverock Hall Road bus link as they are unable to exit the junction onto the A1061 Laverock Hall Road. Problems also exist at residential accesses on this section of road;
- There are poor cycling crossing facilities on Laverock Hall Road;
- Signing into Blyth to use the A1061 Laverock Hall Road is poor. This means that many vehicles end up using the A193 Cowpen Road;
- The level crossing at South Newsham causes traffic congestion when it is lowered for trains. This could be exacerbated in the future if passenger services are reintroduced on the Ashington, Blyth and Tyne railway line;
- Traffic congestion on the A193 Cowpen Road is not just a problem in the peak hours but throughout the day. It also suffers from traffic congestion on a Saturday as people use the A193 Cowpen Road to access retail facilities.

In terms of identifying solutions to meet these problems, stakeholders had the following priorities:

- A review of signal timings on the A193 Cowpen Road to ensure they are optimised to achieve the greatest throughput;
- A review of problem junctions across Blyth to identify junction improvements;
- A relief road to be built in the future to alleviate congestion and accommodate future levels of traffic growth associated with new development.

Emerging Challenge

There are congestion issues to the south of Blyth, particularly on the A1061 Laverock Hall Road.

Emerging Challenge

Facilities for cyclists on the A1061 Laverock Hall Road are generally good but the crossing point for cyclists is poor.

Emerging Challenge

Congestion is not just a problem in the peak periods on the A193 Cowpen Road. Problems exist throughout the day and particularly on a Saturday as people use the road to access retail facilities.

Challenges and Objectives

06

6 Challenges and Objectives

6.1 Introduction

The previous chapters of the report have focussed on the transport problems and challenges which are evident in Blyth. These transport problems are summarised in **Appendix A**. This chapter of the report concentrates on the setting of study objectives to inform the development of options which may alleviate these problems.

The setting of meaningful study objectives is a key process within the development of a transport scheme and needs to be informed by a detailed understanding of problems, opportunities, constraints and uncertainties. The objectives should be set with SMART (Specific, Measurable, Attainable, Relevant and Timed) principles in mind. This section of the report collates and rationalises the emerging challenges, which have previously been highlighted, to inform the process of objective setting.

6.2 Rationalisation of Challenges

Table 6.1 shows how the emerging challenges have been grouped by theme, and subsequently rationalised into a set of four key problem areas, which can be used to inform the setting of meaningful study specific.

Table 6.1: Rationalised Challenges

Emerging Challenge	Rationalised Challenge
Significant housing and employment growth is proposed to come forward across the Blyth area and will impact upon future traffic demands. This has the potential to exacerbate existing transport infrastructure issues.	Projected increases in traffic growth associated with development growth and increasing car ownership will exacerbate traffic congestion and impact on air quality.
The number of households in Blyth is projected to increase by 6.8% to 2031. The location of these houses will impact on traffic conditions.	
Projected increases in car ownership will have a negative impact on traffic congestion and air quality.	

Emerging Challenge	Rationalised Challenge
Private vehicle trips account for the majority of trips to work across all spatial scales. These types of journeys are unsustainable and have the effect of reducing the efficiency of the highway network.	A large proportion of journeys are made by unsustainable transport modes.
The proportion of Blyth residents who use public transport to get to work is low; this is especially true when considering train use.	
There are a significant proportion of internal journey to work movements across Blyth, which places pressures on the local highway network. This situation has the potential to be exacerbated in the future owing to the significant development growth planned to come forward in Blyth, as set out in the new Local Plan	
A continuation of bus patronage decline will put additional strain on the highway network as more people use the private vehicle	
Return journeys to Newcastle from Blyth using the car (including parking costs) are only £0.05 more expensive than using the bus. In order to encourage a modal shift, it is likely that bus tickets would need to be made significantly cheaper.	
Journey times using public transport from Blyth to key employment sites across the North East are significant. This is an indication of poor accessibility from Blyth to key employment areas.	
The photo data indicates there are numerous transport problems occurring along the A193 Cowpen Road. These range from route design issues to capacity issues. The problems results in significant congestion and queuing during peak periods	Unreliable journey times are present across Blyth, particularly on the A193 Cowpen Road and the A1061 Laverock Hall Road, owing to congestion along the route.
Arriva bus services experience a high proportion of delayed services along the A193 Cowpen Road, largely between its junction with the A189 and Tynedale Drive. Within this section, there are accesses to the industrial estate and two schools, therefore creating significant volumes of traffic.	
There are congestion issues to the south of Blyth, particularly on the A1061 Laverock Hall Road.	
Congestion is not just a problem in the peak periods on the A193 Cowpen Road. Problems exist throughout the day and particularly on a Saturday as people use the road to access retail facilities.	
Accidents are more prevalent on particular sections of road in Blyth, most notably along the A189 and A193	Several links and junctions in the Blyth area suffer from a poor safety record which requires improvement
Facilities for cyclists on the A1061 Laverock Hall Road are generally good but the crossing point for cyclists is poor.	

6.3 SMART Objectives

Adopting the SMART approach to objective setting ensures that well-written objectives are developed such that it will be easier to demonstrate progress and success; badly formulated objectives will steer a study in the wrong direction. Whilst the objectives for this study have been developed with SMART principles in mind, as this study is only in its initial stages, it is not possible to develop wholly SMART objectives at the current stage. With this in mind, the challenges identified in Table 6.1, have been reviewed again the SMART objective context outlined in **Table 6.2**, and study specific objectives have been developed.

Table 6.2: SMART Context

Criteria	Description	Questions
Specific	A specific objective needs to be clear and unambiguous so that it can be understood by everybody involved.	A specific objective will answer the following questions: 1. What does the objective want to accomplish? 2. Why do we want to achieve the objective? 3. Who will be involved? 4. Where is it going to happen?
Measurable	A measurable objective needs to be quantifiable and easily measured. If a goal is measurable, it means that the source of the data and mechanisms for collecting the data have been identified and the collection of the data is feasible for the study.	A measurable objective will answer the following question: 1. How will progress towards the objective be measured?
Attainable	Objectives need to be attainable within the proposed time frame and with the resource and support that is available. The path to achievement should be outlined.	An attainable objective will answer the following question: 1. How will the objective be accomplished?
Relevant	It is important to choose objectives that matter so that the overall goal of the study is achieved.	The following questions should be asked of objectives to determine if they are relevant: 1. Does it seem worthwhile? 2. Is it the right time? 3. Does it match the needs of the overall strategy? 4. Are we the right people to achieve the objective?
Timed	Objectives need to be grounded within a timeframe with target dates set so that progress does not stagnate. Timeframes should be reasonable and take into account the environment in which they are to be achieved and the scope of the change expected.	A time bound objective will answer the following question: 1. When will the objective be achieved?

Flow profile charts have been produced which show how the rationalised challenges have been transposed into study specific objectives. The flow profile charts can be found in **Figures 6.1** to **6.4** overleaf.

Figure 6.1: Flow Profile Chart for Objective 1

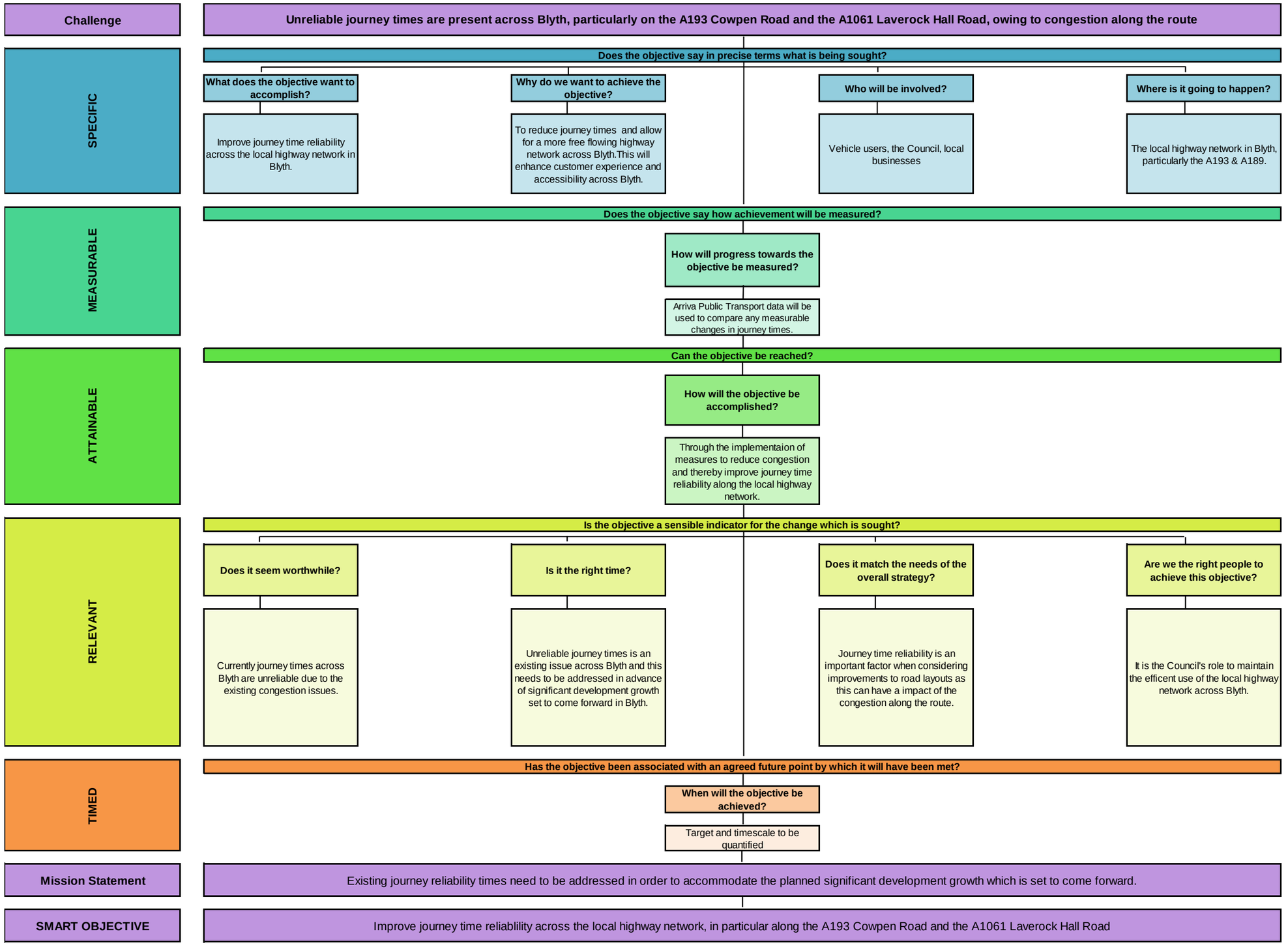


Figure 6.2: Flow Profile Chart for Objective 2

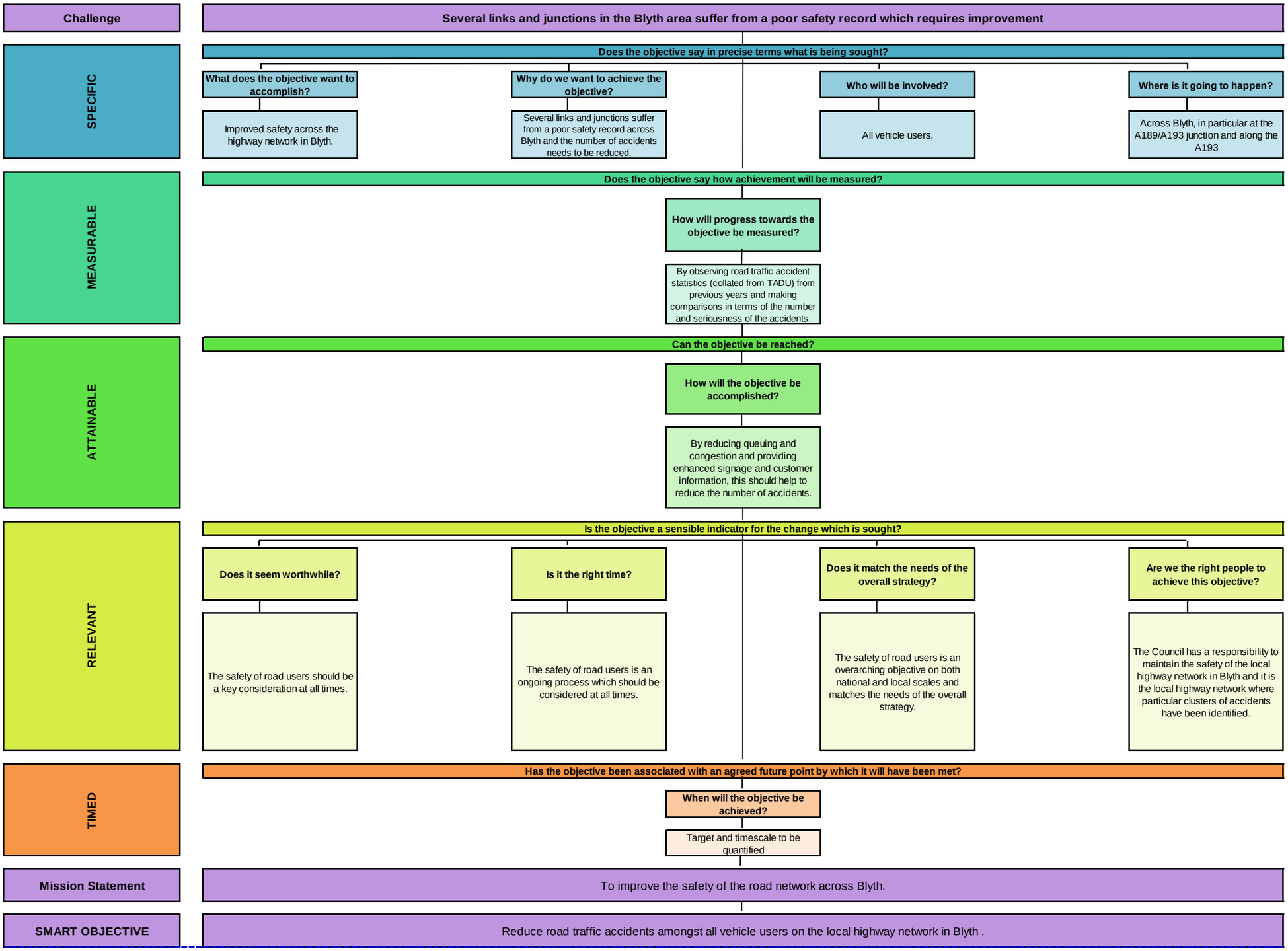


Figure 6.3: Flow Profile Chart for Objective 3

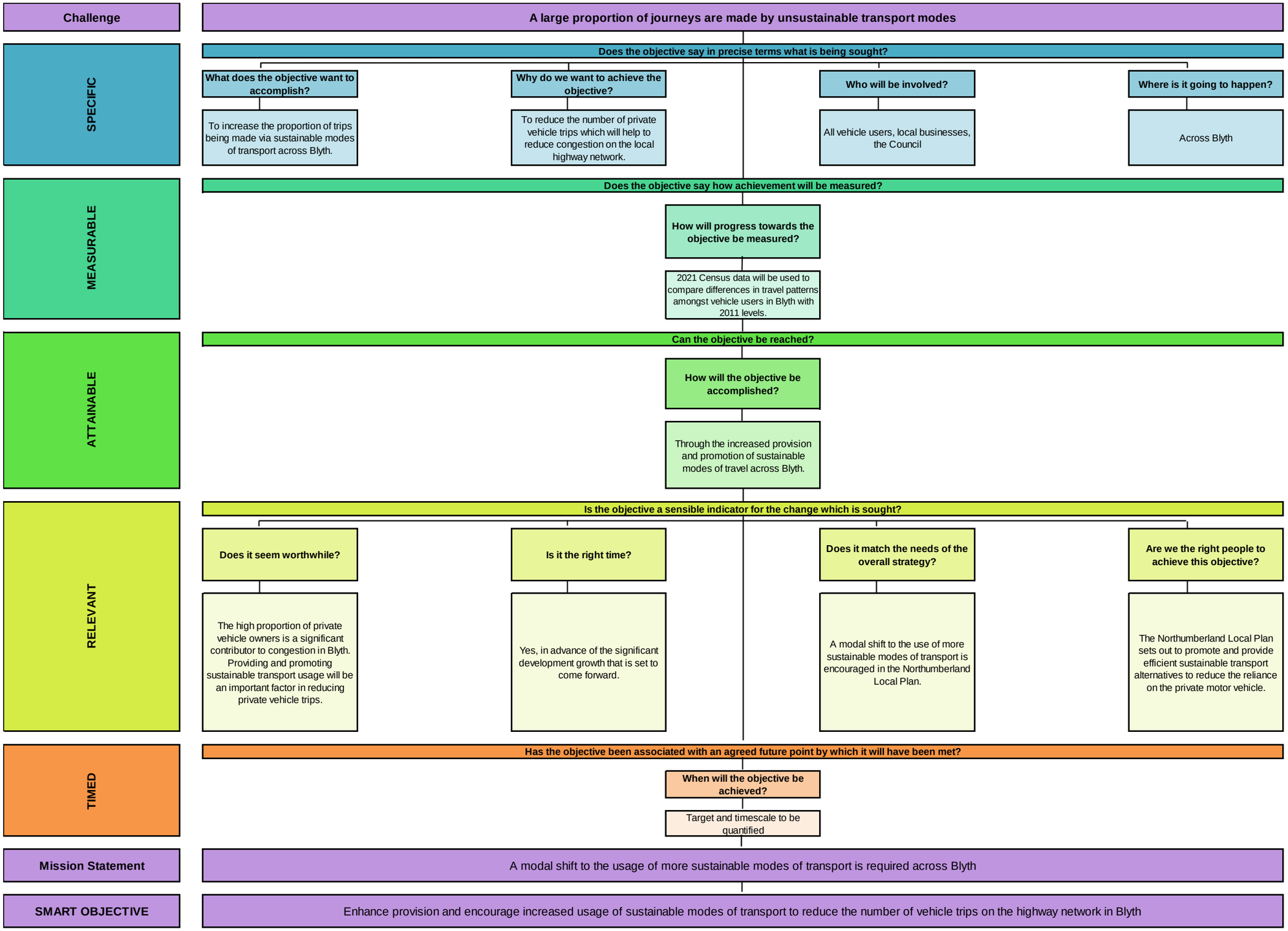
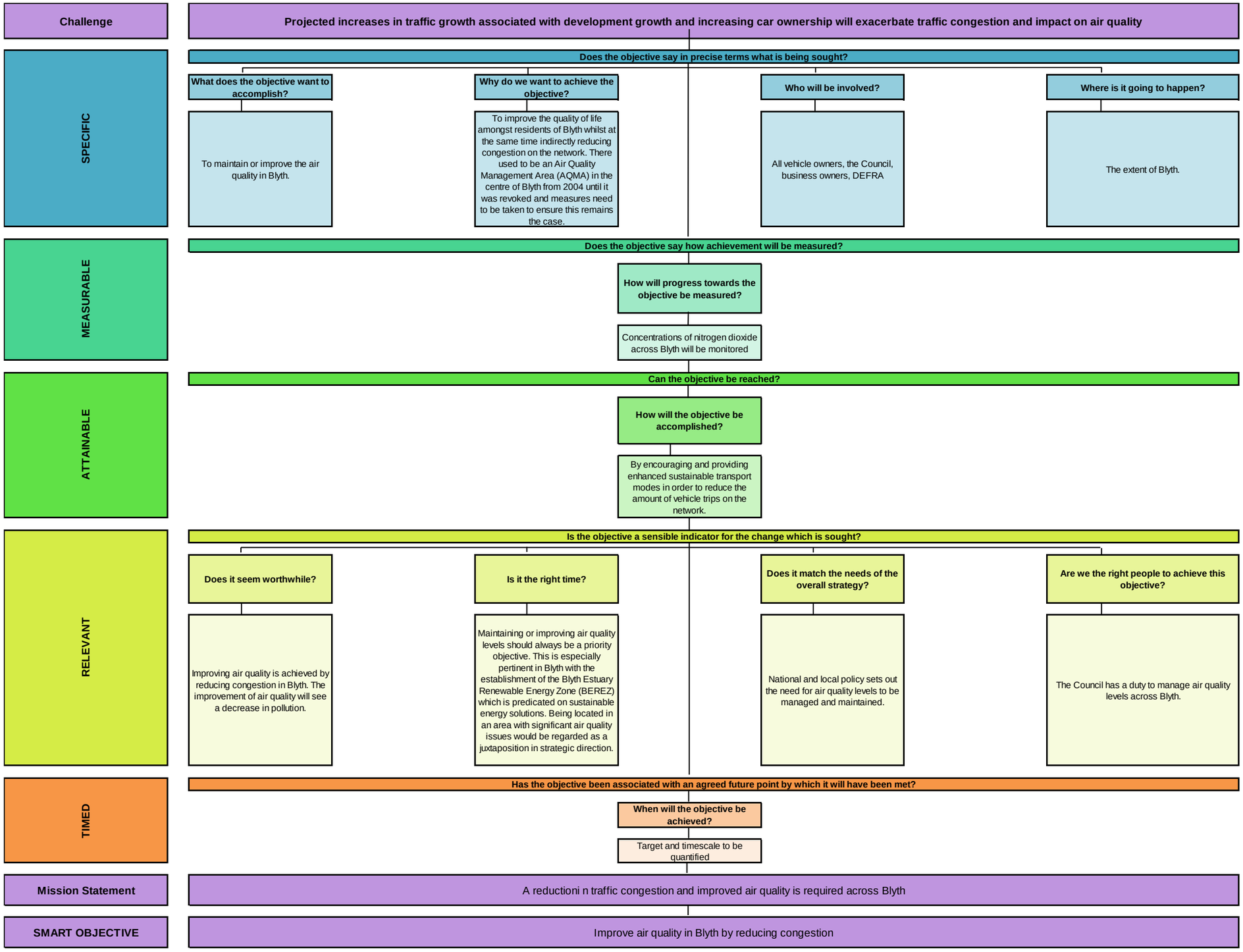


Figure 6.4: Flow Profile Chart for Objective 4



The four study specific objectives which have been developed for the study are shown in **Table 6.3** below.

Table 6.3: Study Specific Objectives

Theme	Objective
Journey Time Reliability	Improve journey time reliability across the local highway network in Blyth, particularly along the A193 Cowpen Road and the A1061 Laverock Hall Road
Road Safety	Reduce road traffic accidents amongst all vehicle users on the local highway network in Blyth
Mode Shift	Enhance provision and encourage increased usage of sustainable modes of transport to reduce the number of vehicle trips on the highway network in Blyth
Air Quality	Improve air quality in Blyth by reducing traffic congestion

The study specific objectives developed in this chapter of the report will be taken forward and used to appraise interventions developed to alleviate transport problems in Blyth, both now and in the future. As the study progresses and consideration is given to the monitoring and evaluation of objectives, study specific objectives should be made fully SMART with suitable timescales and targets developed.

Interventions and Option Development

07

7 Interventions and Option Development

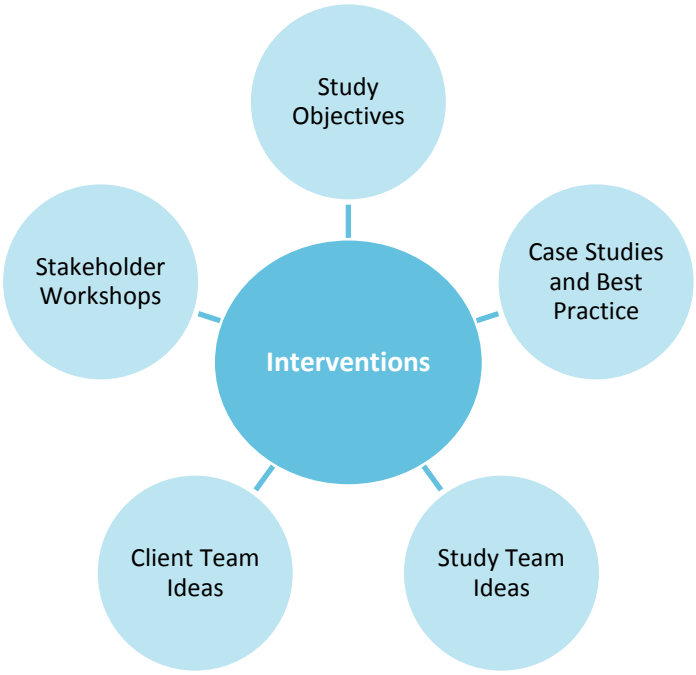
7.1 Introduction

This section of the report discusses the interventions that have been developed in order to alleviate the transport challenges identified throughout the study and satisfy the objectives as set out in Figure 6.1 to 6.4. A long list of interventions has been developed covering a wider range of transport categories, including soft measures, public transport, active travel and highways engineering. These interventions have been appraised using the DfT's Early Assessment Sifting Tool (EAST). The study specific objectives, alongside the EAST assessments, have been used to determine which interventions merit further study.

7.2 Option Generation

To address the challenges and objectives identified in the previous sections of this report, a range of interventions have been identified. These interventions have been drawn from a range of sources which are shown in **Figure 7.1** below.

Figure 7.1: Generating the Long List of Interventions



It is recognised that resources for future transport investment will inevitably be limited so interventions must be identified which offer the greatest level of benefits and tackle the most significant challenges. The interventions identified therefore, span a wide range of different themes and do not simply focus on developing a long list of expensive options which may not be necessary and/or are unaffordable in the current economic climate. The long list is substantial and allows at least an initial view to be taken on the wide range of transport related interventions that could be implemented to help alleviate transport problems in Blyth.

7.3 Initial Sift

In total, 49 possible interventions have been identified covering five categories as set out in **Table 7.1** overleaf. The categories, or themes, will better inform the development of a strategy for Blyth going forward.

The long list of options, in its current form, is unmanageable for the EAST appraisal and will result in many of the options being scored exactly the same where it is not possible to differentiate according to the EAST criteria. It has therefore been necessary to reduce the long list into a shorter list of options, which can be better appraised using the EAST tool. The long list of options has been condensed based on the following rationale:

- Grouping: Options which are similar in nature and would offer identical impacts when rated against challenges and study specific objectives have been grouped together;
- Synergies: Options which work together in synergy in a way that better achieves study specific objectives, compared with assessing each intervention individually, have been further grouped together.

The results of this process are given in full in **Table 7.1**. The original list of 48 options has been condensed down into a manageable list of 17 options

7.4 DfT's Early Appraisal and Sifting Tool

The DfT has developed an appraisal tool (EAST) in order to provide consistent assessments of interventions in the early stages of development. The assessment requires high level details of each intervention to allow for comparison to take place. EAST focuses on the following criteria:

- Strategic: including fit with transport and other government objectives;
- Economic: considering the economy, society and the environment, along with value for money;
- Managerial: looking at acceptability, feasibility and risk;
- Financial: both capital and revenue costs; and
- Commercial: assessing option flexibility, funding and revenue generation.

Detailed documentation on the EAST appraisal method and a copy of the sifting tool can be found at the following link; http://www.dft.gov.uk/publications/transport-business-case/. The EAST appraisal outputs are contained in Appendix B of this report.

Table 7.1: Long List of Interventions and Initial Sift

Theme	Original Option	Description	Comment	New Intervention Name	Summary of Intervention
Soft Measures	Parking standards	Review of parking standards to ensure adequate but not excessive parking across Blyth with appropriate car parking charges, which are free at present.	Complementary option to parking enforcement and will be appraised as one option	Review and enforcement of parking standards	Develop parking standards which adequately cater for development but do not deter sustainable modes or impact on traffic flows in congested areas.
	Parking enforcement	Greater parking enforcement to reduce level of on-street parking in areas where it impacts on traffic flows.	Complementary option to parking standards and will be appraised as one option		
	Workplace, education and residential travel plans	Work with housing developers, schools and employers, to encourage residents, students and staff, to use sustainable modes of transport. Improvements to existing travel plans could include measures to incentivise public transport travel such as season ticket discounts and loans, a travel buddy system, improved car sharing options, and measures to incentivise walking and cycling.	This intervention is closely aligned with other options and has been consolidated into one option to avoid repetition in the appraisal process.	Travel planning	The implementation of workplace, education and residential travel plans and car clubs and the promotion, and support of flexible working practices.
	Car clubs	Provide car clubs to promote car sharing.	This intervention is closely aligned with other options and has been consolidated into one option to avoid repetition in the appraisal process.		
	Personal travel planning - large employment sites	Work with employers to develop individual travel plans for each employee.	This intervention is closely aligned with other options and has been consolidated into one option to avoid repetition in the appraisal process.		
	Marketing/publicity	Marketing and promotion of different transport options for travel in and around Blyth. Use different mediums such as TV, radio, internet, leaflet drops, advertising boards, on vehicles and social media sites. Consider targeted marketing - key businesses.	This intervention is considered a complementary measure. Whilst the intervention is likely to result in a positive impact against the study specific objectives, it is unlikely that the magnitude of impact will meet the levels required. This intervention will therefore be appraised as part of a package of measures.	Marketing and information campaigns	Better provision of information to inform and educate travellers as to the transport options available in Blyth
	Real time information and on-board information	Provide real time information for public transport services at interchange points and stops. Have signs on board public transport stating next stop.	This intervention is considered a complementary measure. Whilst the intervention is likely to result in a positive impact against the study specific objectives, it is unlikely that the magnitude of impact will meet the levels required. This intervention will therefore be appraised as part of a package of measures.		
	Road safety campaigns	Educate drivers as to the risks involved with driving to try and reduce accident rates in Blyth.	This intervention is considered a complementary measure. Whilst the intervention is likely to result in a positive impact against the study specific objectives, it is unlikely that the magnitude of impact will meet the levels required. This intervention will therefore be appraised as part of a package of measures.		

Theme	Original Option	Description	Comment	New Intervention Name	Summary of Intervention
Active Travel	Improve cycle provision	Improvements to footpaths and cycle links across Blyth so that routes are continuous, well lit, secure and well signed.	This intervention is considered a complementary measure. Whilst the intervention is likely to result in a positive impact against the study specific objectives, it is unlikely that the magnitude of impact will meet the levels required. This intervention will therefore be appraised as part of a package of measures.	Active travel infrastructure improvements	Improvements to active travel infrastructure including improved interchange facilities, improved pedestrian and cycling routes including crossing points, and improved cycling parking facilities
	Cycle parking	Increase the availability of cycle parking in Blyth at key destinations in order to encourage cycling and reduce the number of shorter distance trips made by car in the area.	This intervention is considered a complementary measure. Whilst the intervention is likely to result in a positive impact against the study specific objectives, it is unlikely that the magnitude of impact will meet the levels required. This intervention will therefore be appraised as part of a package of measures.		
	Active Travel Towns	Development of strategies and infrastructures to support walking and cycling across Blyth.	This intervention is considered a complementary measure. Whilst the intervention is likely to result in a positive impact against the study specific objectives, it is unlikely that the magnitude of impact will meet the levels required. This intervention will therefore be appraised as part of a package of measures.		
	Pedestrian wayfinding	Improve signposting of pedestrian routes.	This intervention is considered a complementary measure. Whilst the intervention is likely to result in a positive impact against the study specific objectives, it is unlikely that the magnitude of impact will meet the levels required. This intervention will therefore be appraised as part of a package of measures.		
Public Transport	Bus based park and ride	Investigate opportunities for a park and ride facility which serves key bus routes into Tyne and Wear.	This intervention is closely aligned with other options and has been consolidated into one option to avoid repetition in the appraisal process.	Park and ride	Review of potential locations for park and ride sites to provide interchange between car and public transport.
	Rail based park and ride	Investigate opportunities to develop park and ride sites at railway stations should the reopening of Ashington, Blyth and Tyne to passenger services be progressed.	This intervention is closely aligned with other options and has been consolidated into one option to avoid repetition in the appraisal process.		
	Consultation with PT operators	Work with bus operators to develop solutions to make bus travel more attractive.	This intervention is closely aligned with other options and has been consolidated into one option to avoid repetition in the appraisal process.	Better bus provision	Review of bus routes and operations to ensure buses provide an attractive alternative to the car.
	Improved bus routes	Work with bus operators to enhance bus routes so that they serve a wider area.	This intervention is closely aligned with other options and has been consolidated into one option to avoid repetition in the appraisal process.		
	Free buses	Free buses to town centres in South East Northumberland to improve accessibility for those without a car and to reduce the number of vehicles travelling into town centres.	This intervention is closely aligned with other options and has been consolidated into one option to avoid repetition in the appraisal process.		
	Bus priority	Reallocation of road space to improve bus journey times and journey time consistency.	This intervention is closely aligned with other options and has been consolidated into one option to avoid repetition in the appraisal process.		
	Public transport cost	Reduce the cost of public transport to encourage modal shift and improve affordability, therefore promoting accessibility benefits.	This intervention is closely aligned with other options and has been consolidated into one option to avoid repetition in the appraisal process.	Improved ticketing	Review of ticketing options to provide incentives for travelling by public transport.
	Loyalty schemes	Offer loyalty schemes for regular uses of public transport. Consider both individual and business schemes.	This intervention is closely aligned with other options and has been consolidated into one option to avoid repetition in the appraisal process.		
	New Blyth railway stations - Ashington, Blyth and Tyne line to re-open	Locate train stations in most accessible locations to maximise use if the reopening of Ashington, Blyth and Tyne to passenger services is progressed.	Reopening of the Ashington, Blyth and Tyne line to passenger services is a scheme in its own right.	Ashington, Blyth and Tyne	Reopening of the Ashington, Blyth and Tyne railway line to passenger services

Theme	Original Option	Description	Comment	New Intervention Name	Summary of Intervention
Freight/Industry	New industrial estate link road from Bebside Furnace Road via Front Street	Provide better access into industrial estate to the north of Blyth to remove traffic from the A193 Cowpen Road.	This intervention is closely aligned with other options and has been consolidated into one option to avoid repetition in the appraisal process.	Industrial estate access and operations	Review of access and internal traffic flow on industrial estate roads.
	Possible utilisation of industrial estate roads and one-way traffic flows	Provide alternative routes to the A193 Cowpen Road for traffic using the industrial estate to the north of Blyth.	This intervention is closely aligned with other options and has been consolidated into one option to avoid repetition in the appraisal process.		
	Open of blocked access at Spencer Road on industrial estate	Provide alternative routes to the A193 Cowpen Road for traffic using the industrial estate to the north of Blyth.	This intervention is closely aligned with other options and has been consolidated into one option to avoid repetition in the appraisal process.		
	Freight consolidation	Work with businesses to improve communication between businesses and look to consolidate freight movements.	This intervention is closely aligned with other options and has been consolidated into one option to avoid repetition in the appraisal process.		
	Timing restrictions for HGV movements	Restrict timings of HGV deliveries in Blyth.	This intervention is closely aligned with other options and has been consolidated into one option to avoid repetition in the appraisal process.		
Highways	Asda/Cowpen Road/Chase Farm	Signal control of Asda/Cowpen Road/Chase Farm Drive roundabout	This intervention is closely aligned with other options and has been consolidated into one option to avoid repetition in the appraisal process.	Localised highway improvements	Improvements to various junctions across Blyth to improve traffic flows.
	Asda/Cowpen Road/Chase Farm	Improved road markings at Asda/Cowpen Road/Chase Farm Drive roundabout	This intervention is closely aligned with other options and has been consolidated into one option to avoid repetition in the appraisal process.		
	Pedestrian signals at Asda/Cowpen/Chase Farm roundabout	Optimise pedestrian signals at Asda/Cowpen/Chase Farm roundabout and across link road	This intervention is closely aligned with other options and has been consolidated into one option to avoid repetition in the appraisal process.		
	Signage	Improve signage on the A189 into Blyth to ensure equal usage of A193 and A1061	This intervention is closely aligned with other options and has been consolidated into one option to avoid repetition in the appraisal process.		
	A189 southbound off-slip at A193 Cowpen Road	Look at measures to improve signage, visibility and capacity	This intervention is closely aligned with other options and has been consolidated into one option to avoid repetition in the appraisal process.		
	Asda/Cowpen Road/Chase Farm	Improve lane allocation at Asda/Cowpen Road/Chase Farm roundabout	This intervention is closely aligned with other options and has been consolidated into one option to avoid repetition in the appraisal process.		
	Cowpen Road/Tynedale Drive/Coniston Road	Look at measures to improve signal timings as data suggests lost green time. Feasibility design to identify whether traffic signals are the most appropriate solution for this junction.	This intervention is closely aligned with other options and has been consolidated into one option to avoid repetition in the appraisal process.		
	Mini roundabout at small Asda/A193	Feasibility design for junction improvements. Is mini roundabout most appropriate junction design for traffic flows.	This intervention is closely aligned with other options and has been consolidated into one option to avoid repetition in the appraisal process.		
	Schools	Work with schools to improve access arrangements	This intervention is closely aligned with other options and has been consolidated into one option to avoid repetition in the appraisal process.		
	A1061 Laverock Hall Road/Laverock Hall Road junction	Feasibility design to improve A1061 Laverock Hall Road/Laverock Hall Road junction to ensure buses can exit bus only link. Consider similar improvements for residential accesses.	This intervention is closely aligned with other options and has been consolidated into one option to avoid repetition in the appraisal process.		
	Laverock Hall Roundabout	Feasibility design to improve congestion at Laverock Hall Roundabout.	This intervention is closely aligned with other options and has been consolidated into one option to avoid repetition in the appraisal process.		
	Traffic calming	Reduce traffic calming to provide more alternative routes	This intervention is closely aligned with other options and has been consolidated into one option to avoid repetition in the appraisal process.	Review of traffic calming	Review of traffic calming to reduce ‘rat running’ and improve safety across the network.
	Traffic calming	Increase traffic calming to avoid rat running	This intervention is closely aligned with other options and has been consolidated into one option to avoid repetition in the appraisal process.		

Theme	Original Option	Description	Comment	New Intervention Name	Summary of Intervention
Highways	Pedestrian crossings	Rationalisation of pedestrian crossings along A193 Cowpen Road	This option is to be appraised as a standalone option.	Rationalisation of pedestrian crossings	A review of pedestrian crossings on the A193 Cowpen Road to reduce delay to motorised vehicles.
	Improve north south connectivity	Provide through routes between north and south Blyth to reduce traffic on A193.	This option is to be appraised as a standalone option. This option should be appraised as a standalone option as it would require a crossing of the river and therefore has different feasibility requirements which need to be considered.	Improve north south connectivity	Provide alternative north-south routes through Blyth to reduce traffic on key routes.
	Relief Road from A189 north of River Blyth to A193 Cowpen Road	Provide alternative access to the industrial estate to the north of Blyth to avoid the A193 Cowpen Road.			
	SCOOT	Optimisation of traffic signals on A193 Cowpen Road to prioritise mainline traffic.	This option is to be appraised as a standalone option.	SCOOT	Optimise signal timings across Blyth to prioritise key movements
	Internal relief road linking Chase Farm Drive to Princess Louise Road	Reduce traffic on A193 Cowpen Road by providing an alternative option between Chase Farm Drive and Princess Louise Road.	This intervention is closely aligned with other options and has been consolidated into one option to avoid repetition in the appraisal process.	East west relief road	Provide an alternative east-west route into Blyth to alleviate congestion on the A193 Cowpen Road and the A1061 Laverock Hall Road
	Internal relief road linking existing A189/A192 junction to Princess Louise Road	Reduce traffic on A193 Cowpen Road and A1061 Laverock Hall Road by providing an alternative route between the A189 and Blyth town centre.	This intervention is closely aligned with other options and has been consolidated into one option to avoid repetition in the appraisal process.		
	Internal relief road from new A189 junction to Princess Louise Road	Reduce traffic on A193 Cowpen Road and A1061 Laverock Hall Road by providing an alternative route between the A189 and Blyth town centre.	This intervention is closely aligned with other options and has been consolidated into one option to avoid repetition in the appraisal process.		
	Internal relief road from A189/A192 junction to Plessy Road	Reduce traffic on A193 Cowpen Road and A1061 Laverock Hall Road by providing an alternative route between the A189 and Blyth town centre.	This intervention is closely aligned with other options and has been consolidated into one option to avoid repetition in the appraisal process.		
	Strategic relief road from A19 east of A189 junction to Rotary Way	Reduce traffic on A189, A193 Cowpen Road and A1061 by providing an alternative route into Blyth from the A19.	This option should be appraised as a standalone option as it provides connection to the strategic road network and therefore needs to consider other stakeholders	Strategic relief road	Provide an alternative route into Blyth from the strategic road network.
	Dualling of Laverock Hall Road	Realign and dual Laverock Hall Road to provide a more direct and quicker access into Blyth from the south.	This option should be appraised as a standalone option as it relates specifically to the A1061 Laverock Hall Road.	Dualling of Laverock Hall Road	Realign and dual Laverock Hall Road to provide a more direct and quicker access into Blyth from the south.

Option Assessment and Next Steps

08

8 Option Assessment and Next Steps

8.1 Introduction

This chapter of the report summarises the outputs from the EAST appraisal and provides a strategy for investment going forward. The summary EAST assessments are contained in **Appendix B**.

8.2 EAST Appraisal

Following the completion of the EAST appraisal, it is possible to discount options from further study where they score negatively against key objectives. There is only one option which scores negatively against key objectives; this is the rationalisation of pedestrian crossings as it is felt that this could unfairly discriminate vulnerable groups. All other options show varying level of benefits and it is recognised that many interventions, whilst they would not deliver the desired benefits as options in their own right, they would act as a complementary measure. To assist in developing a strategy for investment in Blyth going forward, these options have been categorised into three different packages which represent the short, medium and long term investment in Blyth.

8.3 Packages

The options which have been developed as part of the study have been categorised into short, medium and long term investment. These three categories generally, but not exclusively, translate to a low, medium and high investment approach to tackling transport problems. They generally translate into the following timeframes:

- Short term: 1-2 years
- Medium term : 2-5 years
- Long term: 5 + years

The time frames identified above are indicative and based on an engineering judgement of the likely time required to progress such schemes from initial scoping through to implementation.

8.3.1 Short Term

The short term package seeks to develop the existing transport network in a way that ensures it delivers the greatest transport impact from existing infrastructure. There is an emphasis on revenue supported measures rather than capital measures and the package is largely comprised of non-infrastructure measures such as smarter choices and marketing and publicity. These measures can be implemented in the short term and should not require further appraisal. They will correlate closely with work which is being carried out as part of the Local Sustainable Transport Fund and these options should be progressed as part of this route. Although the Local Sustainable Transport Fund is in its final year, it is expected that similar campaigns will continue in future financial years.

It is unlikely that the measures in the short term package will significantly impact on the transport challenges facing Blyth both now and in the future, but will complement those measures implemented as part of the medium and long term strategies.

8.3.2 Medium Term

The medium term package looks at ‘making best use’ of the transport network in Blyth. The measures being proposed are, for the most part, not significant infrastructure schemes and will not require significant capital investment. However, it is not possible at this stage to determine the most appropriate schemes, and the value for money of these schemes, as no information is available on traffic flows. Further appraisal of the medium term package is therefore needed so that the preferred option for investment can be identified.

The exception in this package is the reopening of the Ashington, Blyth and Tyne line to passenger services and park and ride provision. The Ashington, Blyth and Tyne scheme is already being appraised as part of a further study and therefore, whilst acknowledging its relevance to Blyth, does not need to be appraised further as part of this study. The feasibility of park and ride will be appraised as part of the Ashington, Blyth and Tyne study.

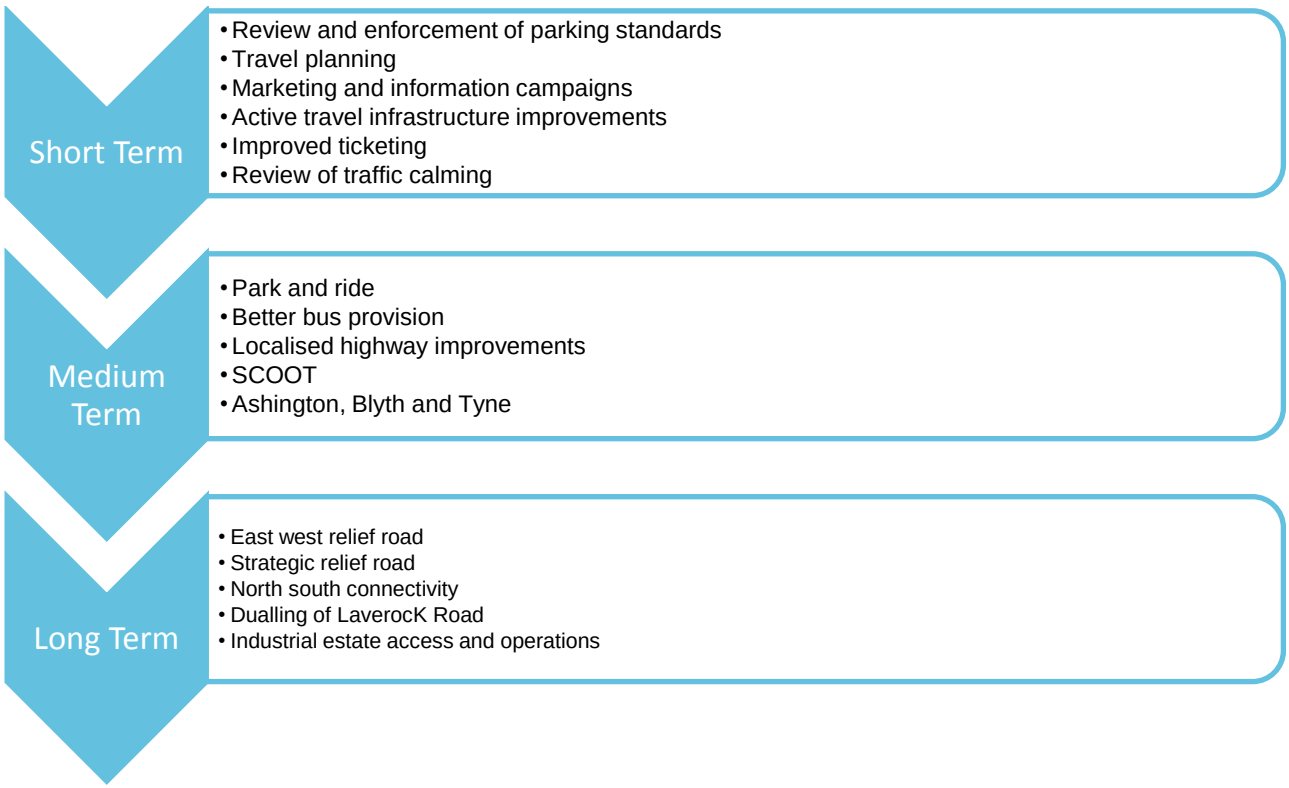
Whilst is is expected that the medium term package can deliver real benefits and a high value for money, it is not expected that these measures will be sufficient to accommodate the future levels of growth associated with the developments identified in Northumberland's Local Plan. These measures will however provide an interim solution until a preferred longer term option can be identified.

8.3.2 Long Term

In the long term, significant growth in traffic is expected across the Blyth network associated with future housing and employment development. The transport network is already exhibiting signs of stress and, whilst it is intended that the short term and medium term strategies will go some way to alleviating these stresses, the transport network in its current form does not have the available capacity to accommodate the future levels of growth. The third package therefore, seeks to tackle transport challenges by adding new capacity to the network. Not all of these options would be developed but the data is not available at this stage to identify the preferred solution.

The options which form the different packages of measures are shown in **Figure 8.1** below.

Figure 8.1: Blyth Transport Options



NB: Timescales are indicative of the option as a whole. Where options are made up of multiple schemes, some scheme could be delivered in a shorter timescale.

8.3.3 Next Steps

Table 8.1 below shows the next step for each of the options identified in **Figure 8.1**

Intervention	Next Step
Short Term	
Review and enforcement of parking standards	Pass report and recommendations to parking officer at Northumberland County Council
Travel planning	Pass report and recommendations to travel plan officer at Northumberland County Council
Marketing and information campaigns	Pass report and recommendations to Local Sustainable Transport team and road safety officers at Northumberland County Council
Active travel infrastructure improvements	Pass report and recommendations to LTP delivery team
Improved ticketing	Pass report and recommendations to Local Sustainable Transport team at Northumberland County Council
Review of traffic calming	Pass report and recommendations to LTP delivery team
Medium Term	
Park and ride	Option to be appraised as part of Ashington, Blyth and Tyne scheme
Better bus provision	Pass report and recommendations to Local Sustainable Transport team at Northumberland County Council who will be working alongside bus operators
Localised highway improvements	Further data needed to undertake more detailed appraisal
SCOOT	Further data needed to undertake more detailed appraisal
Ashington, Blyth and Tyne	Option already being appraised as part of a separate study
Long Term	
East west relief road	Further data needed to undertake more detailed appraisal
Strategic relief road	Further data needed to undertake more detailed appraisal
North south connectivity	Further data needed to undertake more detailed appraisal
Dualling of Laverock Road	Further data needed to undertake more detailed appraisal
Industrial estate access and operations	Further data needed to undertake more detailed appraisal

As identified in **Table 8.1** above, further appraisal is needed on the options within the medium and long term categories to determine preferred solutions. This will require the collection of traffic data, which has not been available as part of this study.

In order to appraise the medium term options, classified turning count data will be needed at key junctions where improvement measures have been suggested in Chapter 7 of this report. This data can be used to develop feasibility designs of the potential solutions which can be taken forward for transport modelling. NCC already have at their disposal a VISSIM micro-simulation model which could be cordoned to the required area to undertake the appraisal of different options, and thus identify the most appropriate solution for each location. The VISSIM model dates back to 2006 and would therefore need updating but would provide a useful starting point.

The longer term options would require a much more detailed appraisal due to the level of investment which would be needed. A stepped approach would be needed as follows:

- Initial option feasibility: Feasibility design of the current high level options to consider design contraints, including land take, alignment, junction connectivity and environmental constraints. It is only when feasibility levels designs are available can strategic transport modelling provide meaningful assessment of the preferred option and value for money.
- Strategic transport modelling: The options would need to be appraised in a strategic transport model to identify the preferred option for investment. No strategic transport model is currently available for Blyth and therefore a detailed collection of traffic surveys would be requireed alongside the construction of a transport model. This detailed collection of traffic surveys would need to include origin-destination data, which can add significant cost to a project. However, without the available tools to appraise the options, it will not be possible to make a decision on the preferred option for investing in additional capacity. A transport model would be needed to inform the production of a business case if funding was to be sought for any of the longer term options.

Conclusions

9 Conclusions

9.1 Introduction

AECOM has been commissioned by Northumberland County Council to undertake an evidenced based transport appraisal to identify transport options to alleviate transport problems in Blyth. The outcomes of this study are summarised in the final chapter of this report.

9.2 Outcomes of the Study

AECOM has developed an evidence base for transport movements across Blyth, to identify the current and potential future transport problems facing the area. From this evidence base, a number of emerging challenges have been identified. These challenges have been taken forward to develop study specific objectives.

9.2.1 Development of Study Specific Objectives

Four study specific objectives have been developed to address transport problems across Blyth. These objectives are as follows:

- Improve journey time reliability across the local highway network in Blyth, particularly along the A193 Cowpen Road and the A1061 Laverock Hall Road;
- Reduce road traffic accidents amongst all vehicle users on the local highway network in Blyth;
- Enhance provision, and encourage increased usage, of sustainable modes of transport to reduce the number of vehicle trips on the highway network in Blyth;
- Improve air quality in Blyth by reducing traffic congestion.

9.2.2 Transport Interventions

To meet the study specific objectives, a long list of transport options has been developed through input from the client team, the study team and as part of stakeholder consultation. This long list of 49 options was sifted into a manageable list of 17 options to be appraised using the DfT's EAST tool.

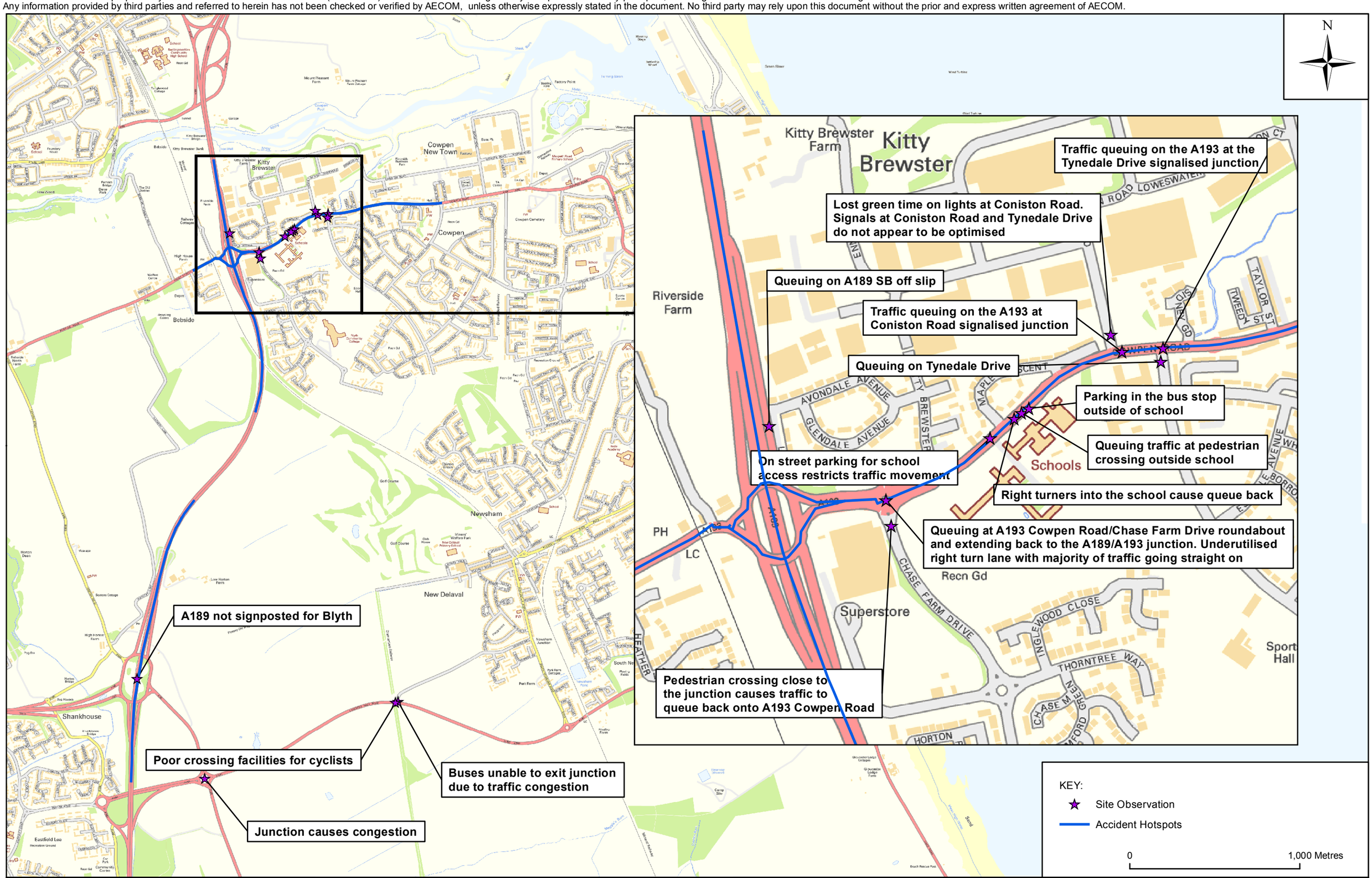
9.2.3 The Way Forward

It has not been possible to identify a preferred option for transport investment in Blyth as part of this study, due to the need for traffic flow data which is not currently available. A number of options have however been identified which score positively against the study specific objectives and could help alleviate transport problems both now and in the future.

A strategy for investment has been identified according to three categories; short term investment, medium term investment and long term investment. Whilst the short term measures require no further appraisal as they are already considered best practice measures, further appraisal of the options in the medium and long term strategies will need to be undertaken using the appropriate appraisal tools for the potential cost of the schemes. The next steps for NCC will be to commission the collection of appropriate data so that the required appraisal to identify the preferred option can be undertaken.

Appendices

Appendix A – Transport Problems



Client: Northumberland County Council	Title: TRANSPORT PROBLEMS	AECOM One Trinity Gardens Quayside Newcastle, NE1 2HF Tel +44 (0) 191 224 6500 Fax +44 (0) 191 224 6599 www.aecom.com	Drawn: LC	Checked: LC
Project: BLYTH TRANSPORT STUDY			Verified: GP	Approved: GM
			Date: MAY 2015	Scale at A3: 1:20,000
			Drawing Number: BL_150507_P1_v2	A3

Appendix B – EAST Assessments

Early Assessment and Sifting Tool (EAST) - *Expanded Print View*

Option Name/No.	**Better Bus Provision**
Date	20/04/2015
Description	This option focuses on providing better bus provision in Blyth to help reduce congestion and link it effectively with local town centres. This will include improving the current bus routes and consulting with local bus operators to provide free buses to town centres. This will increase accessibility for those who do not have a car, reduce the number of vehicles on the road and reduce the number of vehicles travelling to town centres.

Strategic

Identified problems and objectives	Currently there exists significant congestion along Cowpen Road and a low proportion of journeys being made by public transport. Indeed bus patronage figures released by Arriva indicated a large decline in the number of people using its bus services. The population of Blyth is highly dependent upon the use of the private vehicle. The cost of bus travel has also been seen to be as expensive as the use of the private vehicle to key employment areas such as Newcastle.	
Scale of impact	3	If adopted, this scheme could have an impact on levels of congestion by reducing the number of vehciles on the roads.
Fit with wider transport and government objectives	4	The Northumberland Economic Strategy emphasises the importance of connected communities, whilst a key aim of the Northumberland Local Transport Plan (LTP3) is to reduce congestion along Cowpen Road. This scheme would serve to fit with both of these wider transport objectives.
Fit with other objectives	4	The intervention would align with two of the key study objectives; to encourage a modal shift towards the use of more sustainable modes of transport and to reduce carbon emissions (through less vehicles using the network).
Key uncertainties	It is unlikely that modal share/shift will happen straight away as the current data shows a population that is heavily reliant on private vehicle use. Furthermore, free bus travel will need to be discussed in depth with local bus operators and the local authority to understand whether it is a feasible option.	
Degree of consensus over outcomes	3	There may be split opinions between bus operators and the local population. It is likely that the local population and council will welcome better bus provision through improved routes and free buses but this may not be adopted as quickly by the bus operators as this could impact on them financially.

Economic

Economic growth	**4. Amber/green**	A well connected area by public transport has the potential to attract inward investment into Blyth. Furthermore, enhanced connectivity may also benefit existing businesses and services across Blyth.
Carbon emissions	**4. Amber/green**	By providing better bus provision, there should be fewer vehicles on the road and therefore decreasing carbon emissions.
Socio-distributional impacts and the regions	**5. Green**	The intervention will improve access to services across Blyth, especially for vulnerable groups and non private vehicle users. The free bus services would also increase personal affordability and reduce costs of travel.
Local environment	**4. Amber/green**	Better bus provision should help to improve the local environment by reducing the number of vehicles on the road and associated carbon emissions. This wouldreduce the chances of Blyth becoming an Air Quality Management Area (AQMA) again.
Well being	**4. Amber/green**	Improved bus routes will improve accessibility to a range of key services. Reductions in travel costs will also provide people with greater disposable incomes.

Expected VfM category	3. Medium 1.5-2	This will be dependent on the number of options that will be implemented. If free buses and improved bus routes are implemented, this will have a postive impact on the local economy and provide value for money.

Managerial

Implementation timetable	Don't know	To be defined during the consultation period; likely to be a short term intervention.
Public acceptability	4	Improved bus routes will improve accessibility which should be accepted by the public. Likewise, free bus services would also be a welcome measure.
Practical feasibility	3	To be better understood during the consultation period and whether bus companies will be willing to run free bus services. In practice the option should not be difficult to implement if all stakeholders are in agreement.
What is the quality of the supporting evidence?	3	Free bus services run successfully in most town and city centres. No running costs of these schemes have been obtained.
Key risks	Funding issues as no funding is currently in place. The option may also need to be delivered alongside other schemes which promote a modal shift.	

Financial

Affordability	Don't know	Not a capital intensive measure.
Capital Cost (£m)	Don't know	
Revenue Costs (£m)	Don't know	
Cost profile	The cost profile will need to be defined during the consultation period.	
Overall cost risk	Don't know	
Other costs		

Commercial

Flexibility of option	3	The intervention is made up of different options, and there could be flexibility in which options are brought forward.
Where is funding coming from?	Potential government funding	
Any income generated? (£m)	Yes	Don't know

Early Assessment and Sifting Tool (EAST) - *Expanded Print View*

Option Name/No.	**Ashington, Blyth and Tyne Line**
Date	19/04/2015
Description	The re-opening of the Ashington, Blyth and Tyne line and stations at these locations.

Strategic

Identified problems and objectives	A significant proportion of journey to work trips in Blyth are made by private vehicle, with journeys by public transport making up on a small percentage of trips. Indeed, the absence of a railway station in Blyth means that in the 2011 census, only 1% of population of Blyth were recorded to travel to work by train. This creates pressures on the highway network which would be reduced through more people using sustainable modes of transport such as the train.	
Scale of impact	4	The scheme would improve access to employment and the wider regional jobs market for people in Blyth and would provide an incentive for employers to relocate to the area. It would also help to encourage a modal shift towards the use of more sustainable modes of transport . The scheme may exacerbate traffic congestion on the A193 Cowpen Road if a park and ride site is located at Bebside.
Fit with wider transport and government objectives	4	The Northumberland Economic Strategy emphasises the need for the re-opening of the rail line and the benefits to public transport and the stimulus to economic growth in Blyth that it would provide.
Fit with other objectives	5. High	The re-opening of the rail line would encourage a modal shift which is a key objective of this study.
Key uncertainties	Funding issues, delivery timescales	
Degree of consensus over outcomes	4	

Economic

Economic growth	**5. Green**	Good public transport works and access to work is likely to attract inward investment.
Carbon emissions	**5. Green**	The scheme would help to encourage a modal shift, which in turn would help to reduce queuing and associated carbon emissions.
Socio-distributional impacts and the regions	**5. Green**	Not only will the scheme encourage a modal shift which will reduce congestion on the network and in turn reduce noise pollution and improve air quality, but also it will improve accessibility to employment opportunities and other key services for local people.
Local environment	**4. Amber/green**	The line is already existing and so limited construction works would be necessary. Therefore impacts on the local environment would also be limited.
Well being	**4. Amber/green**	Less congestion on the network as a result of modal shift will reduce driver stress and enhance customer experience.
Expected VfM category	2. High 2-4	Scheme not expected to bear significant costs as the existing line is already in place, however it is expected to bring significant economic benefits.

Managerial

Implementation timetable	5. 2-5 years	A Network Rail study into the costs is likely to take at least six months and therefore the scheme would likely be delivered in the medium term.
Public acceptability	5. High	Significant local support, most notably through the SENRUG campaign to reintroduce passenger services.

Practical feasibility	4	The line currently operates as a fully maintained freight line meaning that passenger services could be re-installed very easily, at a much smaller cost than would apply to the opening of other lines.
What is the quality of the supporting evidence?	3	The business case has been developed and the GRIP2 study is currently being comissioned.
Key risks	Funding issues.	

Financial

Affordability	3	The line is fully maintained and so passenger services could be re-installed at a relatively small cost. A GRIP3 study by Network Rail will examine in more detail the likely capital costs.
Capital Cost (£m)	05. 25-50	Likely to be in the region of £30-50m
Revenue Costs (£m)	Don’t know	
Cost profile	Don't know	
Overall cost risk	3	
Other costs		

Commercial

Flexibility of option	2	
Where is funding coming from?	Government funding	
Any income generated? (£m)	Yes	Don’t know

Early Assessment and Sifting Tool (EAST) - *Expanded Print View*

Option Name/No.	**Active Travel Improvements**
Date	20/04/2015
Description	Improve and enhance cycle networks and pedestrian footpaths. Increase the availability of cycle parking in Blyth at key destinations in order to encourage cycling and reduce the number of shorter distance trips made by private vehicle.

Strategic

Identified problems and objectives	It has been noted that in Blyth there is currently very limited Active Travel Infrastructure in place. Improving sustainable/active travel modes will have a positive impact on reducing congestion.	
Scale of impact	3	This will have a impact on reducing congestion as it will see less cars on the road network across Blyth.
Fit with wider transport and government objectives	4	Promoting sustainable and active travel modes is a government and wider transport objective.
Fit with other objectives	4	This will have a positive impact on reducing congestion, therefore aligning with more local objectives.
Key uncertainties	The main uncertainty associated with this intervention is that once the infrastructure improvements are put in place then people may not use them.	
Degree of consensus over outcomes	4	This is a common intervention and so outcomes should be clear.

Economic

Economic growth	**3. Amber**	This will contribute to economic growth by providing better access to Blyth and its surrounding areas.
Carbon emissions	**4. Amber/green**	Due to less vehicles being on the road because of the introduction of more active travel modes there will be less congestion along the route thus reducing the amount of carbon emissions.
Socio-distributional impacts and the regions	**5. Green**	This intervention will significantly improve access to key areas in Blyth.
Local environment	**4. Amber/green**	By reducing the amount of vehicles on the road will have a positive impact on congestion, subsequently improving air quality.
Well being	**4. Amber/green**	This will increase connections between areas in the North East. This will also improve journey time reliability as less vehicles will be on the road network because they are using a range of active travel modes. This will also encourage more physical activity across Blyth.
Expected VfM category	3. Medium 1.5-2	This will be dependent on the magnitude of the proposed interventions. Scheme should be fairly low cost.

Managerial

Implementation timetable	4. 1-2 years	This intervention will be more long term than the other options due to it requiring changes to the infrastructure.
Public acceptability	3	This will be a fairly uncontroversial intervention as it will aim to reduce congestion, therefore improving customer experience along the route.
Practical feasibility	2	This intervention will require changes to existing infrastructure and may require land take.
What is the quality of the supporting evidence?	4	The improving of existing infrastructure to encourage modal shift and more active travel is proven to reduce vehicles on the road subsequently reducing congestion.

Key risks	The main uncertainty associated with this intervention is that once the infrastructure improvements are put in place then people may not use them also funding issues may arise.

Financial

Affordability	Don't know	This will be dependent on the magnitude of the proposed interventions.
Capital Cost (£m)	Don’t know	This will be dependent on the magnitude of the proposed interventions.
Revenue Costs (£m)	Don’t know	This will be dependent on the magnitude of the proposed interventions.
Cost profile		
Overall cost risk	Don’t know	
Other costs		

Commercial

Flexibility of option	4	This option is flexible as it can be improved on a very large or small scale in order to encourage sustainable and active travel modes.
Where is funding coming from?	Potential government funding	
Any income generated? (£m)	Don't know	

Early Assessment and Sifting Tool (EAST) - *Expanded Print View*

Option Name/No.	**Improved N-S Connectivity**
Date	21/04/2015
Description	This option is predicated on improving north-south connectivity across Blyth, including through the construction of a new relief road from the A189 north of River Blyth to the A193 Cowpen Road.

Strategic

Identified problems and objectives	Congestion into Blyth is an issue, particularly along the A193 Cowpen Road. A high number of accidents are also known to occur along this stretch and at this junction. The construction of a relief road may help to reduce traffic flows along Cowpen Road and at this junction, thus reducing congestion and journey time unreliability.	
Scale of impact	4	The creation of a relief road could have a significant impact on the current traffic flows in Blyth. By providing a link between the A189 and the A193, this may help to reduce congestion and queuing. However, its impact would be dependent upon the location at which it joins with Cowpen Road. It is considered that its greatest impact on traffic flows would be if the link was located further east along Cowpen Road (in particular to the east of Tynedale Drive). The section of Cowpen Road to the west of Tynedale Drive is known to be a particular congestion hotspot due to accesses to two schools and an industrial estate. If vehicles not wishing to access these services could leave the network before reaching this stretch, this would help to reduce congestion and delays.
Fit with wider transport and government objectives	4	The Northumberland Local Transport (LTP3) states a key objective is to reduce congestion along the A193 Cowpen Road and this intervention should help in the achievement of this objective. Furthermore, the Northumberland Economic Strategy states the importance of connected communities and this intervention will serve to heighten north-south connectivity across Blyth.
Fit with other objectives	4	Key objectives of the study are to improve journey time reliabilities and improve the safety record of the network across Blyth. It is considered that this intervention will help to achieve both of these objectives.
Key uncertainties	Potential engineering constraints and significant costs associated with having to cross the River Blyth. Potential environmental risks. Benefits of the scheme are unknown at this stage. It could be that the construction of an additional access onto Cowpen Road actually serves to heighten congestion issues along the route.	
Degree of consensus over outcomes	2	Dependent upon the particular location of the road.

Economic

Economic growth	**4. Amber/green**	A relief road would reduce congestion which would have a positive impact on journey times and allow for more efficient north-south movements. This will have the effect of attracting inward investment and also enabling the development trips associated with planned economic growth to be accommodated.
Carbon emissions	**4. Amber/green**	The relief road will result in a reduction in queuing traffic and in turn this will result in a reduction in carbon emissions.
Socio-distributional impacts and the regions	**4. Amber/green**	The relief road will provide greater accessibility and connectivity across the area. However, it would also be important to ensure that the physical infrastructure does not create severance issues between communities.
Local environment	**3. Amber**	The relief road will reduce current congestion levels and levels of pollution. However there could be impacts on local environmental designations and these would need to be assessed.

Well being	**4. Amber/green**	There could be some impacts on severance across communities, dependent upon the location of the road. However, a reduction in queuing should reduce driver stress and also reduce the number of accidents along the route.
Expected VfM category	4. Low 1-1.5	There could be significant engineering costs associated with the road requiring to cross the River Blyth.

Managerial

Implementation timetable	6. 5-10 years	Likely to require significant consultation and assessment work, therefore likely to be a medium term to long term intervention.
Public acceptability	3	There may be some local opposition to the construction of a new road, however it should be welcomed by the majority as a means of reducing congestion along existing routes.
Practical feasibility	2	Dependent upon land acquistion, the outcomes of an environmental assessment and the extent of the engineering costs associated with routing over the River Blyth.
What is the quality of the supporting evidence?	4	The construction of a relief road is a common practice method of reducing congestion along the existing transport network.
Key risks	There could be local resistance to the construction of a new road. Potential funding risks and also environmental risks which would need to be assessed. There could also be third party land ownership issues which would need to be addressed.	

Financial

Affordability	2	A capital intensive method which would require an appropriate funding source.
Capital Cost (£m)	05. 25-50	
Revenue Costs (£m)	Don't know	
Cost profile	To be defined	
Overall cost risk	2	
Other costs		

Commercial

Flexibility of option	2	Exact location of the relief road to be defined.
Where is funding coming from?	Yet to be determined - potential government funding	
Any income generated? (£m)	No	

Early Assessment and Sifting Tool (EAST) - *Expanded Print View*

Option Name/No.	**Industrial Estate Access & Ops**
Date	19/04/2015
Description	A review of access into the industrial estate including the implementation of timed restrictions for HGV movements, the possible utilisation of industrial estate roads and the establishment of a link road from Bebside Furnace Street via Front Street.

Strategic

Identified problems and objectives	The A193 Cowpen Road is characterised by congestion along the route. A contributing factor to this congestion is the high proportion of HGVs which use the route to access Cowpen Industrial Estate.	
Scale of impact	4	The interventions would change the assignment of HGVs meaning that they would avoid the use of Cowpen Road during peak periods. It is expected that this would significantly help to reduce traffic congestion along the route and also improve accessibility to the industrial estate.
Fit with wider transport and government objectives	3	The Northumberland Local Transport Plan (LTP3) (2011) states that options should be considered for reducing congestion on the A193 and this intervention will help to satisfy this objective.
Fit with other objectives	5. High	The intervention would help to improve journey times which is a key objective of this study.
Key uncertainties	Funding issues, potential need for land acquisition.	
Degree of consensus over outcomes	3	Unknown as the options have not been put forward to public consultation. However improved accessibility to the industrial estate and reduced congestion is likely to be welcomed by the majority.

Economic

Economic growth	**5. Green**	Improved accessibility to the industrial estate may attract inward investment. Furthermore, reduced congestion along the network will enable development trips associated with economic growth to be accommodated
Carbon emissions	**5. Green**	Reduced queuing on the network will help to reduce carbon emissions.
Socio-distributional impacts and the regions	**6. No Impact**	
Local environment	**2. Red/amber**	The pooling of HGVs onto separate roads will impact upon air pollution and increase noise pollution. Furthermore, the construction of a new estate link road may have local environmental impacts which would need to be assessed.
Well being	**4. Amber/green**	Less congestion on the network as a result of reduced HGV traffic will reduce driver stress and have a positive impact on customer experience.
Expected VfM category	3. Medium 1.5-2	Dependent upon the nature of the scheme. The more capital intensive option to construct a new industrial estate link road is likely to provide less value for money than other low cost interventions.

Managerial

Implementation timetable	Don't know	Dependent upon the nature of the scheme; the construction of a link road could not be delivered in the short term as land acquisition may be required and there may be funding issues however the smaller scale scheme would be capable of being delivered in the short term.

Public acceptability	3	Likely to be support for reducing the amount of HGV movements on Cowpen Road as this will improve journey times. However timed restrictions on HGV movements along the route are unlikely to be welcomed by HGV companies and there could also be opposition towards the construction of a new link road specifically for HGV movements and the noise and air quality issues that would be associated.
Practical feasibility	3	The cosntruction of a new link road may require land acquisition which may impact upon its feasibility. Other solutions should be fairly practical to implement.
What is the quality of the supporting evidence?	2	A limited evidence base at present.
Key risks	Funding issues, land acquistion.	

Financial

Affordability	Don't know	This would be dependent upon the nature of the scheme. The more efficient use of the existing road network across the industrial estate and timed restrictions would bare significantly smaller costs than the construction of a new link road.
Capital Cost (£m)	Don’t know	Dependent upon the nature of the scheme.
Revenue Costs (£m)	Don’t know	Associated maintenance costs.
Cost profile	Don't know	
Overall cost risk	3	
Other costs		

Commercial

Flexibility of option	4	The intervention is made up of different solutions which could be brough forward separately.
Where is funding coming from?	Government funding	
Any income generated? (£m)	No	

Early Assessment and Sifting Tool (EAST) - *Expanded Print View*

Option Name/No.	**Localised Junction Improvements**
Date	19/04/2015
Description	Improvements to various junctions across Blyth, primarily located along the A193 Cowpen Road.

Strategic

Identified problems and objectives	Capacity and/or route/junction design issues prevalent across the study area, in particular the A193 Cowpen Road. Significant levels of growth expected to come forward across Blyth will place additional demand on the junctions.	
Scale of impact	4	Scale of impact is dependent upon the number of junction improvement schems which are implemented (11 in total). Should the majority come forward, it is expected that the intervention would have quite a significant impact, with many junction capacities being enhanced.
Fit with wider transport and government objectives	4	The North East Strategic Economic Plan and the Northumberland Economic Strategy set out plans for significant economic growth to come forward across the county, including Blyth. Junction capacity enhancements across Blyth will enable the additional vehicle trips associated with this growth to be accommodated. In the Northumberland Local Transport Plan 3 (2011), long term aspirations for transport are set out which include considering options for reducing congestion on the A193 Cowpen Road corridor. Since many of the identified junction improvement interventions are located along this corridor, it is considered that this option fits quite strongly with wider transport policy objectives.
Fit with other objectives	5. High	One of the key objectives of this study is to improve journey time reliability along the local highway network, in particular along the A193 Cowpen Road in Blyth. Enhancing junction capacity through the implemention of these localised junction improvement interventions will contribute to journey times being improved. At the same time, another key objective is to improve the safety of the road network across Blyth. Improved road markings at junctions and enhanced visibility, combined with reduced congestion should also help to reduce the number of accidents along the route.
Key uncertainties	There exists limited traffic data available across the network. Therefore the traffic problems cannot be quantitatively identified and the impacts of junction improvement schemes cannot be modelled. Therefore there exists uncertainty in relation to the extent that junction improvement schemes would reduce traffic congestion along the route.	
Degree of consensus over outcomes	3	Identified as a strategic need at a local need, however difficulties may exist in justifying this need at a higher level, without more traffic data being obtained.

Economic

Economic growth	**5. Green**	Junction improvements will serve to reduce congestion, improve journey time reliabilities and reliability and support the significant economic growth that is expected to come forward across the area.
Carbon emissions	**4. Amber/green**	Enhanced junction capacities and improved route design will lead to a reduction in queuing and associated carbon emissions. However it will also enable more vehicles to be accommodated which could negatively impact upon carbon emissions.
Socio-distributional impacts and the regions	**4. Amber/green**	Improved pedestrian access through the optimisation of pedestrian signals at the ASDA/Cowpen/Chase Drive Farm roundabout. Improved signage and road markings should reduce the number of accidents whilst enhanced capacity and reduced queuing may have a positive impact on air quality.

Local environment	**4. Amber/green**	Largely neutral although reduced queuing will have a positive impact on air quality.
Well being	**4. Amber/green**	Largelt neutral, although more reliable journey times will reduce driver stress and improve customer experience. There should also be an associated decrease in the number of accidents.
Expected VfM category	2. High 2-4	The interventions will help to support economic growth at a relatively low cost.

Managerial

Implementation timetable	5. 2-5 years	This would be a medium term intervention. Before any of the interventions could come forward, traffic data would need to be collected in order for traffic modelling to be undertaken.
Public acceptability	4	Significant local support for interventions along Cowpen Road to come forward to improve traffic flows. E-petitions submitted to the government setting out the traffic issues along the route and a member led report was submitted to the Streetcare, Infrastructure and Culture (Urban) working group by Councillor Susan Davey, also setting out the traffic issues along the route.
Practical feasibility	4	Utilisation of mainly highway boundaries with limited land take required.
What is the quality of the supporting evidence?	4	Junction improvement are a common practice method of improving traffic flows and reducing congestion.
Key risks	Funding, potential third party land ownership issues. The need for interventions may be difficult to justify at present, given the lack of traffic flow data currently available.	

Financial

Affordability	3	Dependent upon the number of interventions that come forward. However all of the interventions are relatively minor and should not involve capital intensive works.
Capital Cost (£m)	Don't know	Dependent upon the number of interventions that come forward.
Revenue Costs (£m)	Don't know	The introduction of signals may bring some revenue costs and the maintenance of road markings would also involve some limited revenue costs.
Cost profile	Unknown - interventions to be delivered in the medium term.	
Overall cost risk	3	
Other costs		

Commercial

Flexibility of option	4	The option involves different types of junction improvements and there is flexibility over which would come forward. The outputs of traffic modelling would give a better indication at which options should be brought forward.
Where is funding coming from?	Potential government funding.	
Any income generated? (£m)	No	

Early Assessment and Sifting Tool (EAST) - *Expanded Print View*

Option Name/No.	**Dualling of Laverock Hall Road**
Date	19/04/2015
Description	Upgrading of Laverock Hall Road to dual standard.

Strategic

Identified problems and objectives	Stakeholders have highlighted that severe congestion occurs along the A1061 Laverock Hall Road at peak times. The Arriva bus company has also stated that it does not use the bus only link on Old Laverock Hall Road as they find it difficult to obtain gaps in traffic to exit the junction onto the A1061.	
Scale of impact	4	The dualling of the road would significantly improve the operation of the link. However the scheme may require land acquistion and could have other impacts such as rendering existing junction capacity insufficient.
Fit with wider transport and government objectives	4	The North East Strategic Economic Plan (SEP) sets out plans for significant development growth to come forward across the Blyth area. The dualling of the link would help to ensure that all additional vehicle trips are able to be accommodated. The Northumberland Local Transport Plan (LTP3) is also predicated on ensuring that the operation of transport networks is efficient and this scheme would also help to achieve this aim.
Fit with other objectives	4	The option would fit well with three of the four study objectives; to improve journey time reliabilities, reduce the number of accidents along the route and reduce carbon emissions through a reduction in queuing traffic. However, the construction of additional highway would conflict with the objective to encourage a modal shift towards the use of more sustainable modes of transport.
Key uncertainties	Land acquistion may be required, potential funding issues and local opposition	
Degree of consensus over outcomes	4	Stakeholders have identified the operation of this link as an issue and therefore the dualling is likely to be supported. Similarly, Arriva have indicated that the current operation of the route does not allow its bus service to sustainably operate and the dualling of the route may help to rectify these issues.

Economic

Economic growth	**5. Green**	The dualling will improve the operation of the transport network, therefore potentially helping to attract inward investment and enabling additional trips associated with planned economic growth to be accommodated.
Carbon emissions	**4. Amber/green**	The dualling will lead to a reduction in queuing traffic and the increased carbon emissions associated with staionary traffic. However, the scheme will also enhance link capacity, meaning that additional carbon emitting vehicles can be accommodated onto the network.
Socio-distributional impacts and the regions	**4. Amber/green**	A more free flowing network can improve accessibility to services and reduce the number of accidents along the route. However the dualling may make the road more difficult to cross for pedestrians and therefore could lead to severance issues.
Local environment	**3. Amber**	The dualling may lead to increased noise pollution and there could also be impacts on existing environmental designations which would need to be fully assessed.
Well being	**4. Amber/green**	More free flowing traffic conditions will help to reduce driver stress although there could be issues in relation to severance.
Expected VfM category	3. Medium 1.5-2	This would need to be assessed. The scheme would likely involve quite significant costs, however could also bring significant benefits.

Managerial

Implementation timetable	6. 5-10 years	Traffic data would be required to be collected and traffic modelling undertaken before the scheme could come forward. Therefore, unlikely to be implemented in the short term.
Public acceptability	3	Reduced congestion along the route is likely to obtain public support amongst motorised vehicle users. However there could be oppostion from pedestrians due to severance issues.
Practical feasibility	Don't know	Dependent upon the outcomes of an environmental assessment and the extent to which private land would be required. Also potential funding issues could constrain the feasibility of the scheme.
What is the quality of the supporting evidence?	3	The upgrading of a link to dual standard is a common practice method of reducing traffic congestion along a route. However traffic modelling needs to be undertaken in order for the benefits of the scheme to be better understood.
Key risks	Funding issues, potential environmental risks and potential third party land ownership risks.	

Financial

Affordability	2	The scheme would be a capital intensive solution
Capital Cost (£m)	05. 25-50	Likely to be in the region £25m based on the costs of other similar schemes.
Revenue Costs (£m)	Don’t know	
Cost profile	Unknown	
Overall cost risk	2	
Other costs		

Commercial

Flexibility of option	2	A fairly rigid intervention
Where is funding coming from?	Government	
Any income generated? (£m)	No	

Early Assessment and Sifting Tool (EAST) - *Expanded Print View*

Option Name/No.	**Marketing Campaigns**	
Date	20/04/2015	
Description	Marketing campaigns to better inform the local population about their available sustainable travel options. The promotion of health/lifestyle benefits and education campaigns in schools, workplaces and communities of the benefits of walking and cycling and also how to ride a bike.	

Strategic

Identified problems and objectives	The use of sustainable transport makes up a very small proportion of mode share across Blyth. Indeed it has been shown that bus patronage figures are actually declining. Therefore there needs to be an active promotion of the benefits of using sustainable modes and the services available, in order to encourage more people to make the shift towards using more sustainable modes of transport.	
Scale of impact	3	Predicated on changing public perceptions in relation to the way in which they travel. Dependent upon the nature of the campaign the impact could be quite significant in changing how people travel.
Fit with wider transport and government objectives	4	The Northumberland Local Transport Plan (LTP3) places emphasis on encouraging a modal shift towards the use of more sustainable modes of transport and reducing congestion along Cowpen Road. This scheme will help in the achievement of these objectives.
Fit with other objectives	3	A key objective of this study is to encourage a modal shift and this scheme will help in the achievement of this objective.
Key uncertainties	Funding sources and extent of the impact on modal share.	
Degree of consensus over outcomes	4	Should be a high degree of consensus over outcomes.

Economic

Economic growth	**6. No Impact**	
Carbon emissions	**4. Amber/green**	The scheme should encourage a modal shift which will reduce congestion, queuing and associated high levels of carbon emissions.
Socio-distributional impacts and the regions	**4. Amber/green**	Information on services which local people did not know existed may improve accessibility and connectivity.
Local environment	**6. No Impact**	Limited impacts on the local environment.
Well being	**4. Amber/green**	The intervention will help to increase physical levels of activity through the promotion of walking and cycling which will help to improve well being.
Expected VfM category	2. High 2-4	Should be a very low cost option and should help to bring long term benefits to network performance

Managerial

Implementation timetable	3. 6-12 months	Could be implemented in the short term.
Public acceptability	4	The option is likely to be supported by the public.
Practical feasibility	4	Liaison required with key stakeholders such as schools and employers but should be a practical solution to implement
What is the quality of the supporting evidence?	4	Marketing campaigns promoting sustainable travel solutions is a commonly used soft mitigation measure.
Key risks	Failure of the marketing campaigns to encourage a modal shift, funding issues.	

Financial

Affordability	4	Should be an affordable and low cost solution.

Capital Cost (£m)	Don’t know	Low cost
Revenue Costs (£m)	Don’t know	
Cost profile	Yet to be defined	
Overall cost risk	4	
Other costs		

Commercial

Flexibility of option	4	Various methods of marketing could be employed.
Where is funding coming from?	To be defined, potential government funding	
Any income generated? (£m)	No	

Early Assessment and Sifting Tool (EAST) - *Expanded Print View*

Option Name/No.	**Park & Ride facilities**
Date	16/04/2015
Description	This intervention will see more park and ride facilities at key transport interchanges.

Strategic

Identified problems and objectives	Private vehicle use makes up the majority of mode share across Blyth. The implementation of park and ride facilities may help to encourage more people to use sustainable modes of transport.	
Scale of impact	2	Currently could only be implemeted for bus services as no rail station exists in Blyth. Impact would be dependent upon usage of the facilities by the public. Could increase traffic congestion in location of park and ride facilities.
Fit with wider transport and government objectives	3	This intervention will promote sustainable travel across Blyth which is a wider transport and government objective.
Fit with other objectives	3	A key objective of the study is to encourage a modal shift and this scheme should help to satisfy this objective.
Key uncertainties	A uncertainty associated with this intervention is that people may not use the park and ride facilities, this will not have the desired affect of reducing the amount of vehicles on the road. Further uncertainties in relation to the locations of the facilities and sources of funding.	
Degree of consensus over outcomes	3	Would require public consultation, however similar schemes have been implemented across the country and therefore outcomes should be clear.

Economic

Economic growth	**4. Amber/green**	This will contribute to economic growth by providing better access to key services in Blyth.
Carbon emissions	**3. Amber**	This will have a minor impact on reducing congestion and queuing and associated high amounts of carbon emissions. Could increase congestion in localised areas.
Socio-distributional impacts and the regions	**3. Amber**	This intervention will aim to improve access to key services across Blyth. It should also contribute to reductions in noise pollution and improvements in air quality.
Local environment	**4. Amber/green**	By reducing the amount of vehicles on the road, this will reduce congestion, subsequently improving air quality.
Well being	**3. Amber**	Improvements in accessibility and reductions in congestion along the network will contribute towards reducing driver stress.
Expected VfM category	3. Medium 1.5-2	A low cost scheme to implement which should bring benefits to the operation of the network. However this would require further consideration.

Managerial

Implementation timetable	Don't know	The bus based park and ride facilities could be implemented in the short term however the rail based facilities would be more medium to long term given the current absence of a rail station in Blyth.
Public acceptability	4	The Park & Ride facilities should be supported by the majority.
Practical feasibility	3	Dependent upon funding sources and identification of suitable locations for parking facilities. Few locations for bus based park and ride sites and rail based facilities would not be feasible until the opening of Blyth station.
What is the quality of the supporting evidence?	4	The implementation of park and ride facilities is standard method of encouraging the use of more sustainable modes of transport and helping to reduce congestion along the route.

Key risks	Funding sources have yet to be identified and also a risk that the facilities would not be used. Would require a change in public perceptions in order for the services to be fully utilised.

Financial

Affordability	4	Would be an affordable measure to implement.
Capital Cost (£m)	Don't know	Dependent upon the extent of the intervention
Revenue Costs (£m)	Don't know	
Cost profile	Yet to be defined	
Overall cost risk	4	
Other costs		

Commercial

Flexibility of option	3	Bus and/or rail based
Where is funding coming from?	Potential government funding / support from bus companies	
Any income generated? (£m)	Yes	Don't know

Early Assessment and Sifting Tool (EAST) - *Expanded Print View*

Option Name/No.	**East West Relief Road**
Date	28/05/2015
Description	This option focuses on reducing congestion into Blyth, particularly along Cowpen Road by considering an East to West Internal Relief Road to better distribute the flow of traffic. Four possible interventions have been identified: 1. Chase Farm Drive to Princess Louise Road; 2. A189/A192 junction to Princess Louise Road; 3. A189 junction to Princess Louise Drive; 4. A189/A192 junction to Plessy Road.

Strategic

Identified problems and objectives	Congestion into Blyth is problematic with high rates of congestion along Cowpen Road as it serves two schools, an industrial estate and a supermarket. Congestion is heavy around peak times and therefore a relief road to alleviate the traffic has been viewed as a feasible option.	
Scale of impact	4	The creation of a relief road could have a significant impact on the current traffic flow into Blyth.
Fit with wider transport and government objectives	4	At the regional level, the North East Strategic Economic Plan (2014) has identified Blyth as an innovation hub that will need to accommodate significant growth and therefore withstand further pressures on the current road network. The Northumberland Economic Strategy also states the importance of connected communities. At the local level the Northumberland Local Transport Plan's (3) goals and objectives are as follows: extend the reach of the existing netowrk where it is needed to meet the growing demand, improve transport connections to key services and facilities and improve transport connections within and between communities. It is considered that the construction of a relief road would fit these wider objectives.
Fit with other objectives	3	There are three key study objectives that this option fits in with; 1. Improve journey time reliability across the local highway network , in particular along the A193 Cowpen Road in Blyth; 2. Reduce road traffic accidents amongst all vehicle users on the local highway network in Blyth; 3. Improve the air quality by reducing congestion.
Key uncertainties	Key issues will surround how well the construction of a relief road will be received by the population of Blyth and if there are any funding sources available.	
Degree of consensus over outcomes	3	Whilst this option is looking to reduce congestion in to Blyth and make the roads safer it may be met with some resistance from locals who may not want construction in the area. Public consultations will need to be undertaken to understand this further.

Economic

Economic growth	**4. Amber/green**	A relief road should reduce congetsion which will have a positive impact on journey times and allow for more efficient movement in to and out of Blyth. This may help to attract inward investment and would also help to accomodate the additional development trips associated with economic growth.
Carbon emissions	**4. Amber/green**	The relief road should reduce the amount of queuing traffic and associated high amounts of carbon emissions from queuing vehicles.
Socio-distributional impacts and the regions	**4. Amber/green**	Overall there will be greater accessibility and connectivity in the area to allow movement of people more efficiently.
Local environment	**3. Amber**	A new relief road will alleviate the current pressures on road in to and out of Blyth. A relief road will reduce current congestion rates and levels of pollution and should reduce the chance of Blyth needing an AQMA again. However there could be potential impacts on local environment designations which would need to be carefully considered.

Well being	**4. Amber/green**	Overall impacts will be positive. A new relief road should alleviate current strains on the network and associated driver stress and have a positive impact on road safety.
Expected VfM category	3. Medium 1.5-2	There will be quite significant construction costs associated with this option, however it will reduce congestion and the negative impacts associated with it.

Managerial

Implementation timetable	6. 5-10 years	A large amount of consultation and assessment work such as traffic modelling and environmental impacts would need to be carried out. Therefore it is likely to be a medium to long term intervention.
Public acceptability	3	It is anticipated that the public will accept this shchem as it could reduce congestion in Blyth considerably. However as it involves construction it could be met with resistance.
Practical feasibility	3	Funding is a key uncertainty and no funding source has been identified. Any environmental impacts will have to be considered and the public will have to be consulted.
What is the quality of the supporting evidence?	3	The construction of a relief road is a common method of alleviating congestion across a network.
Key risks	The main risk will be whether the scheme is accepted by the public and if there is any resistance. There could be issues in relation to potential third party land ownership and the need for the land to be acquired.	

Financial

Affordability	3	A capital intensive method which would need an appropriate funding source
Capital Cost (£m)	05. 25-50	20-30 million
Revenue Costs (£m)	Don't know	
Cost profile	The cost profile of this option is currently unknown.	
Overall cost risk	2	
Other costs		

Commercial

Flexibility of option	3	This option has four interventions that sit within it so some flexibility is provided.
Where is funding coming from?	The funding source is yet unkown.	
Any income generated? (£m)	No	

Early Assessment and Sifting Tool (EAST) - *Expanded Print View*

Option Name/No.	**Review of parking standards**
Date	14/04/2015
Description	To enforce parking restrictions along the route in order to improve traffic flow and allow better public transport movement.

Strategic

Identified problems and objectives	Along Cowpen Road, it has been noted that vehicles park in restricted areas This impacts on general traffic flow and public transport reliability considerably, with buses unable to pull up at the bus stop and numerous vehicles aiming to pull off from a parked position having an impact on traffic flows.	
Scale of impact	2	This is only a small scale improvement towards reducing congestion in Blyth.
Fit with wider transport and government objectives	2	The intervention may help to reduce congestion along the route with aligns with the objectives in the Northumberland Local Transport Plan (LTP3) to reduce congestion along Cowpen Road.
Fit with other objectives	4	A key objective of this study is to improve safety along the route. By having greater enforcements on illegal parking, this will increase safety for users and also help to improve journey time reliabilities which is another key objective of the study.
Key uncertainties	Extent to which the enforecements will reduce congestion is unknown. People may also continue to park illegally.	
Degree of consensus over outcomes	Don't know	Extent of the outcomes unknown.

Economic

Economic growth	**6. No Impact**	
Carbon emissions	**4. Amber/green**	Less congestion and queuing along the route associated with more free flowing traffic conditions will also mean that less carbon is emitted.
Socio-distributional impacts and the regions	**4. Amber/green**	Greater enforcements may lead to a reduction in accidents along the route.
Local environment	**6. No Impact**	
Well being	**3. Amber**	Safety along the route should be improved and more free flowing conditions is likely to result in a reduction in driver stress.
Expected VfM category	2. High 2-4	A low cost scheme that should bring benefits to the operation of the link.

Managerial

Implementation timetable	4. 1-2 years	Unknown however it could be a short term solution.
Public acceptability	3	Likely to be supported by some road users, however others (in particular people dropping off children at the schools) may not support the scheme.
Practical feasibility	4	Would be fairly feasible to implement. Alternative parking areas may need to be found.
What is the quality of the supporting evidence?	4	A common practice solution.
Key risks	People may still continue to park illegally. Extent of the impacts on congestion are unknown.	

Financial

Affordability	5. Affordable	Would be a very affordable method of reducing congestion. The scheme would require greater patrolling from traffic wardens.

Capital Cost (£m)	02. 0-5	A low cost solution.
Revenue Costs (£m)	02. 0-5	Traffic warden wages
Cost profile	Don't know	
Overall cost risk	5. Low risk	
Other costs		

Commercial

Flexibility of option	2	
Where is funding coming from?	Government funding	
Any income generated? (£m)	Yes	02. 0-5

Early Assessment and Sifting Tool (EAST) - *Expanded Print View*

Option Name/No.	**Review of pedestrian crossings**
Date	20/04/2015
Description	Potential rationalisation of pedestrian crossings along Cowpen Road.

Strategic

Identified problems and objectives	There are a high number of pedestrian crossings situated along Cowpen Road and also situated on approaches in the immediate vicinity of Cowpen Road junctions. This has the effect of exacerbating queuing and congestion along the route and at particular junctions such as the ASDA/Cowpen Road/Chase Farm roundabout where a pedestrian crossing is situated in the immediate vicinity of the junction.	
Scale of impact	2	Will have a small positive impact on queuing and congestion but could also impact negatively upon safety and connectivity.
Fit with wider transport and government objectives	2	The Northumberland Local Transport Plan (LTP3) sets out for congestion to be reduced along Cowpen Road and this intervention should help to achieve this.
Fit with other objectives	2	The intervention may improve journey time reliabilities which is a key objective of the study however it may also conflict with the objective to improve safety along the route.
Key uncertainties	Extent to which the intervention would reduce congestion is unclear. Also at this stage it is uncertain how many and which crossings should be rationalised.	
Degree of consensus over outcomes	2	Outcomes unclear at this stage.

Economic

Economic growth	**6. No Impact**	
Carbon emissions	**4. Amber/green**	Less queuing traffic should result in a decrease in carbon emissions.
Socio-distributional impacts and the regions	**1. Red**	The intervention could impact upon accessibility, especially for vulnerable groups and create severance issues. It could also impact upon the number of accidents occurring along the route.
Local environment	**4. Amber/green**	Small improvements in air quality.
Well being	**2. Red/amber**	It will negatively impact upon the well being of non motorised users however could have some benefits for vehicle users, with less queuing resulting in a reduction in driver stress.
Expected VfM category	3. Medium 1.5-2	A low cost intervention but the benefits of the scheme are currently not defined however better coordinated pedestrian crossings could allow additional green time thus improving VfM.

Managerial

Implementation timetable	3. 6-12 months	Assessment of the utilisation of the pedestrian crossings would need to be undertaken to allow for an informed decision as to which crossings should be removed. However it is likely that the option could be delivered in the short term.
Public acceptability	1. Low	Likely to be public opposition towards the removal of pedestrian crossings, especially along a route which has two schools located along its stretch.
Practical feasibility	5. High	Would be very practical to implement.
What is the quality of the supporting evidence?	Don't know	
Key risks	Likely to be significant opposition towards the rationalisation of pedestrian crossings.	

Financial

Affordability	5. Affordable	Would be a very low cost method.
Capital Cost (£m)	02. 0-5	

Revenue Costs (£m)	01. None	
Cost profile	To be defined	
Overall cost risk	5. Low risk	
Other costs		

Commercial

Flexibility of option	1. Static	
Where is funding coming from?	To be defined	
Any income generated? (£m)	No	

Early Assessment and Sifting Tool (EAST) - *Expanded Print View*

Option Name/No.	**Implementation of SCOOT**
Date	28/05/2015
Description	The optimisation of signal timings, including pedestrian crossings, on the A193 Cowpen Road to prioritise mainline traffic.

Strategic

Identified problems and objectives	The operation of Cowpen Road is characterised by significant congestion and journey time delays during both peak periods. There are numerous sets of traffic signals located along their route and their current operation and proximity means that traffic is not passing efficiently during each green cycle.	
Scale of impact	3	Optimised signal timings should help to improve mainline traffic flows along A193 Cowpen Road.
Fit with wider transport and government objectives	3	The Northumberland Local Transport Plan (LTP3) sets out that congestion along the A193 Cowpen Road should be reduced and the optimisation of the signals should help in this regard.
Fit with other objectives	3	A key aim of the study is to improve journey time reliability across Blyth and it is considered that this intervention will help to achieve this objective.
Key uncertainties	The intervention should improve journey times on the mainline, however its impacts on the adjoining side roads are unclear. Uncertainty with regard to where funding will derive.	
Degree of consensus over outcomes	3	Outputs are well known worldwide and so should be a high degree of consensus.

Economic

Economic growth	**4. Amber/green**	More free flowing traffic conditions along Cowpen Road will enable development trips from planned economic growth to be accommodated and the area to become more attractive to inward investment.
Carbon emissions	**4. Amber/green**	A reduction in queuing traffic along the route as a result of the more efficient signal timings should lead to a reduction in associated carbon emissions.
Socio-distributional impacts and the regions	**6. No Impact**	
Local environment	**4. Amber/green**	Improvements in air quality as a result of reduced carbon emissions with less queuing vehicles.
Well being	**4. Amber/green**	Reductions in driver stress as a result of less queuing and more reliable journey times.
Expected VfM category	3. Medium 1.5-2	Costs and particular benefits are not clear at this stage and so it is difficult to establish a VfM Category. However it is expected that benefits to journey times should be quite significant.

Managerial

Implementation timetable	Don’t know	Could be brought forward in the short term.
Public acceptability	3	The public are likely to be unaware of the changes to the operation of the signals.
Practical feasibility	4	Adaptive technology to fluctuations in traffic flow. Detectors are required on each link, however installation is practical.
What is the quality of the supporting evidence?	5. High	SCOOT has been implemented worldwide and has proven benefits to journey times and delay reductions.
Key risks	Funding issues, potential negative impacts on the operation of side roads at the expense of improved mainline conditions on Cowpen Road.	

Financial

Affordability	Don't know	
Capital Cost (£m)	Don’t know	
Revenue Costs (£m)	Don’t know	Maintenance of the operating system/communication costs
Cost profile	To be defined	
Overall cost risk	3	
Other costs	Good traffic data is a prerequisite for the successful operation of the SCOOT system and there is limited traffic data currently held along this route. Installing inductive loops and maintaining them, to collect the data is a significant element in the cost of SCOOT.	

Commercial

Flexibility of option	1. Static	
Where is funding coming from?	Unknown - potential government funding	
Any income generated? (£m)	No	

Early Assessment and Sifting Tool (EAST) - *Expanded Print View*

Option Name/No.	**Improved PT Ticketing**
Date	19/04/2015
Description	Reduced cost of public transport ticketing to encourage a modal shift and the implementation of a "loyalty scheme".

Strategic

Identified problems and objectives	The cost of bus travel to Newcastl City Centre is no different to that of the costs of travelling by private vehicle from Blyth. There needs to be a greater incentive to encourage more users to take the bus rather than the car, which could be achieved through a reduction in the costs of public transport tickets.	
Scale of impact	2	It is unlikely that the scheme would have a significant direct impact on mode share on its own and instead would need to be delivered alongside other soft measures such as travel planning and improvements to existing infrastructure.
Fit with wider transport and government objectives	4	The Northumberland Local Transport Plan (LTP3) (2011) emphasises the need for the use of more sustainable modes of transport and this option could help to satisfy this objective.
Fit with other objectives	5. High	One of the key ojectives of the study is to encourage a modal shift and this objective will go some way to achieving this objective. At the same time, a modal shift would also improve journey time reliabilities which is another key objective of the study.
Key uncertainties	Uncertainty with regard to the extent to which the intervention would encourage a modal shift.	
Degree of consensus over outcomes	4	Improved ticketing likely to be supported by members of the public, however it may also require the support of bus companies.

Economic

Economic growth	**6. No Impact**	Unlikely to have a direct impact on economic growth.
Carbon emissions	**4. Amber/green**	The intervention may help to encourage a modal shift, which would reduce queuing and in turn would reduce carbon emissions.
Socio-distributional impacts and the regions	**4. Amber/green**	Reduced ticket prices will make public transport more accessible for a wider range of income groups and enable more people to use it. It will also improve customer experience with more people benefitting from reduced costs of travel.
Local environment	**6. No Impact**	Unlikely to have a direct impact on the local environment.
Well being	**4. Amber/green**	Reduced travel costs will lead to greater disposable incomes and an enhanced quality of life.
Expected VfM category	4. Low 1-1.5	Reduced ticket prices may require subsidies and the benefits of the scheme are not clearly defined.

Managerial

Implementation timetable	Don’t know	The scheme could be implemented in the short term however a more detailed programme is not known at this stage.
Public acceptability	5. High	Public acceptability for reduced ticket prices is likely to be high.
Practical feasibility	3	It is likely that public transport services would need to be subsidised and this may impact upon the feasibility of the scheme.
What is the quality of the supporting evidence?	Don't know	
Key risks	Funding issues and a risk that on its own, the scheme may bring limited benefits.	

Financial

Affordability	Don't know	Dependent upon the extent of the ticket price reductions.
Capital Cost (£m)	Don’t know	Dependent upon the extent of the ticket price reductions.
Revenue Costs (£m)	Don’t know	Dependent upon the extent of the ticket price reductions.
Cost profile	Don't know	
Overall cost risk	2	
Other costs		

Commercial

Flexibility of option	2	The intervention is made up of reduced ticket prices and the implementation of a "loyalty scheme" and these could be brought forward individually.
Where is funding coming from?	Public transport companies / government funding	
Any income generated? (£m)	No	

Early Assessment and Sifting Tool (EAST) - *Expanded Print View*

Option Name/No.	**Review of Traffic Calming**
Date	16/04/2015
Description	Increased implementation of traffic calming measures to reduce "rat running" and improve safety along the route.

Strategic

Identified problems and objectives	The transport network across Blyth is characterised by a high proportion of accidents along the route. The implementation of traffic calming measures should help to improve safety and reduce rat running and instances of reckless driver behaviour.	
Scale of impact	2	Limited impact expected.
Fit with wider transport and government objectives	2	The scheme may help to improve safety across the network which is an overarching aim of transport policy.
Fit with other objectives	2	The scheme would help in the achievement of the study objective to improve safety along the route.
Key uncertainties	No guarantee that the scheme will improve safety. Also the causes of the accidents along the route is unknown and so a reduction in instances of reckless driver behaviour may not necessarily reduce the number of accidents.	
Degree of consensus over outcomes	3	Likely to be supported by local residents, however motorised vehicle users may not support the scheme due to its potential impact on free flowing traffic conditions. Furthermore, the implementation of measures such as speed bumps can cause damage to vehicles, therefore increasing repair costs for vehicle users.

Economic

Economic growth	**2. Red/amber**	A large amount of traffic calming measures along the route may serve to reduce instances of free flowing traffic and rendering Blyth a less attractive destination for inward investment.
Carbon emissions	**6. No Impact**	
Socio-distributional impacts and the regions	**4. Amber/green**	Traffic calming measures will make it easier and safer pedestrians to cross the roads, therefore increasing connectivity for pedestrian users.
Local environment	**6. No Impact**	
Well being	**4. Amber/green**	The scheme will reduce issues of severance and also should help to improve safety for both vehicle users and pedestrians. However a large amount of traffic calming measures may increase instances of driver stress.
Expected VfM category	3. Medium 1.5-2	Would be a very low cost solution, however the extent of the benefits are not clearly defined.

Managerial

Implementation timetable	4. 1-2 years	Could be implemented in the short term.
Public acceptability	3	Likerly to be public support, especially along Cowpen Road where there are two schools located. However the measures may not be supported by motorised vehicle users.
Practical feasibility	5. High	Would be practical to implement.
What is the quality of the supporting evidence?	4	Interventions such as speed bumps and other traffic calming techniques are proven to have been successful in the past in reducing cases of rat running in the past.
Key risks	There may be limited impacts on road safety. Also the measures could negatively impact upon journey times along the route.	

Financial

Affordability	4	Dependent upon the extent of interventions implemented, although likely to be an affordable option.
Capital Cost (£m)	02. 0-5	Dependent on the extent of the interventions although should be a low cost scheme.
Revenue Costs (£m)	02. 0-5	Maintenance of speed cameras and other calming infrastructure.
Cost profile	Don't know	
Overall cost risk	4	
Other costs		

Commercial

Flexibility of option	3	Flexibility in the type of traffic calming measures implemented.
Where is funding coming from?	Potential government funding.	
Any income generated? (£m)	Yes	Don’t know

Early Assessment and Sifting Tool (EAST) - *Expanded Print View*

Option Name/No.	**Travel Planning**
Date	14/04/2015
Description	The implementation of workplace, education and residential travel plans and car clubs and the promotion and support of flexible working practices.

Strategic

Identified problems and objectives	Traffic flow problems exist on Cowpen Road which can be addressed through the promotion of sustainable modes. Capacity and/or route/junction design issues are prevalent across the study area, particularly the A193 Cowpen Road. Significant levels of growth expected to come forward across Blyth will place additional demand on the junction.	
Scale of impact	4	The efficient implementation of the scheme could help to encourage a modal shit towards more sustainable modes which would have a positive impact on route congestion.
Fit with wider transport and government objectives	4	The scheme should help to reduce congestion along the A193 Cowpen Road corridor which is a key aim as set out in the Northumberland Local Transport Plan (LTP3).
Fit with other objectives	4	A key aim of the study is to encourage a modal shift to the use of more sustainable modes of transport. This scheme will help in the achievement of this objective. Furthermore, it should also indirectly help to improve journey time reliabilities along the route through a reduction in queuing which is also another key objective of the study.
Key uncertainties	The main uncertainty with this option is that even when the schemes are introduced is that people may not use them and still stick to using private vehicles as the main means of travelling.	
Degree of consensus over outcomes	4	There should exist a consensus that the scheme would help to encourage a modal shift.

Economic

Economic growth	**6. No Impact**	Limited impact on economic growth.
Carbon emissions	**5. Green**	This will help to reduce carbon emissions by more sustainable modes of travel being used.
Socio-distributional impacts and the regions	**4. Amber/green**	Limited impacts however the implementation of car clubs and other measures may help to create different social groups.
Local environment	**4. Amber/green**	Encouraging sustainable transport modes will reduce the amount of vehicles on the route, therefore improving air quality. This will also reduce noise pollution.
Well being	**5. Green**	This option will increase levels of physical activity by encouraging people to use sustainable transport modes such as walking and cycling.
Expected VfM category	2. High 2-4	Likely to be a low cost scheme to implement which should bring benefits to the performance of the transport network.

Managerial

Implementation timetable	3. 6-12 months	Likely to be able to be delivered in the short term.
Public acceptability	4	Likely to have high public acceptability, as a well regarded method of reducing congestion.
Practical feasibility	3	Will require activation and promotion at a local level to ensure that the full extent of its benefits are realised.
What is the quality of the supporting evidence?	5. High	The implementation of travel planning is a common practice method of encouraging modal shift.
Key risks	Extent of the utilisation of the schemes put in place.	

Financial

Affordability	3	Should be a relatively affordable soft measure to implement.
Capital Cost (£m)	02. 0-5	Costs based on previous schemes.
Revenue Costs (£m)	Don’t know	Mainly revenue costs will be generated.
Cost profile	Don't know	
Overall cost risk	4	
Other costs		

Commercial

Flexibility of option	4	This option offers a range of different schemes that can be promoted on an individual basis.
Where is funding coming from?	Government funding	
Any income generated? (£m)	No	