

# A614/A6097 Major Road Network Junction Improvement Package - Wider Economic Impacts

Nottinghamshire County Council

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## Quality information

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## Contents

	Executive Summary .....	6
1.	Introduction.....	10
2.	Local Economic Profile .....	13
3.	Opportunities for Growth .....	30
4.	Assessment of Wider Economic Benefits .....	37
5.	Wider Non-monetised Impacts.....	42
	Appendix A – Land Value Uplift Methodology.....	48
	Appendix B – Consultees.....	51

## Figures

Figure 1-1 A614/A6097 Corridor Improvements (the Scheme) .....	11
Figure 2-1 Population & population growth.....	14
Figure 2-2 Population by highest NVQ level .....	16
Figure 2-3 Employment occupations .....	17
Figure 2-4 Gross median annual earnings (resident-based) .....	17
Figure 2-5 Method of travel to work.....	19
Figure 2-6 GVA per Full-Time Equivalent Employment within D2N2 LEP .....	22
Figure 2-7 GVA per head .....	23
Figure 2-8 Key tourism attractions along the A614 corridor .....	24
Figure 2-9 Breakdown of tourism jobs in Newark and Sherwood .....	25
Figure 2-10 Index of Multiple Deprivation .....	27
Figure 2-11 Yearly new build dwellings completed per 1,000 residents.....	28
Figure 2-12 Median house prices .....	29
Figure 3-1: Midlands Connect key objective outcomes .....	31
Figure 5-1 Index of Multiple Deprivation (2019).....	46

## Tables

Table 1-1 Land Value Uplift.....	7
Table 2-1 Economic activity and unemployment rates aged 16-64.....	15
Table 2-2 Location of workplace for residents of Newark and Sherwood .....	18
Table 2-3 Employment by sector – location quantitative analysis relative to Great Britain.....	21
Table 3-1 Nottinghamshire Visitor Economy Strategy - Goals for 2023 and 2029.....	33
Table 3-2 Major developments along the A614/A6097 corridor .....	36
Table 4-1 Quantum of development by site: grand total and total which is dependent.....	38
Table 4-2 Dependent development effects at Thoresby Colliery: gross and net additional ...	38
Table 4-3 Dependent development effects at Teal Close: gross and net additional.....	39
Table 4-4 Land Value Uplift.....	39
Table 4-5 Land Value Sensitivities Tests.....	40
Table 5-1 Gross direct employment impacts at Thoresby Colliery & Teal Close .....	43

# Executive Summary

## Introduction

Nottinghamshire County Council has commissioned AECOM to undertake a wider economic impacts study of seven proposed junction improvements on the A614/A6097 corridor in Nottinghamshire. The junction improvements (defined as “the Scheme”) include:

- Ollerton Roundabout – the intersection of the A614 / A616 / A6075 roundabout
- Deerdale Lane junction – the A614 / Eakring Road / Deerdale Lane crossroads
- Mickledale Lane junction – the A614 / Mickledale Lane crossroads
- White Post roundabout – the A614 / Mansfield Road roundabout
- Warren Hill junction – the A614 / A6097 priority junction
- Lowdham Roundabout – the A6097 / A612 Nottingham Road / Southwell Road roundabout, and
- Kirk Hill junction – the A6097/ Kirk Hill junction.

The purpose of this study is to assess the wider economic benefits of the Scheme to support the outline business case submission to Department for Transport.

## Summary of Key Findings and Results

The Scheme will support a range of benefits by relieving constraints on development and unlocking property investment. These benefits are assessed in terms of land value uplift. In addition, the Scheme will support a range of wider non-monetised impacts which are important to the case for investment such as employment and economic growth, economic efficiency and business investment, tourism benefits, social and deprivation impacts, and contribution to housing growth and development. A summary of quantitative and qualitative assessment results is presented below.

### Dependent Development and Land Value Uplift

The Scheme will unlock dependent development at two sites: Thoresby Colliery in Newark and Sherwood and Teal Close in Gedling, allowing 1,240 dependent homes and 2.4 hectares of employment land to come forward. The assessment has quantified the land value uplift (LVU) associated with the development, summarised in Table 1-1 below. The Scheme is estimated to deliver a present value of benefits of £21.5m gross LVU and £13.3m net additional LVU.

**Table 1-1 Land Value Uplift**

	Gross impact of Scheme	Net impact of Scheme
Residential Land Value Uplift	£21.0m	£13.0m
Commercial Land Value Uplift	£0.5m	£0.3m
<b>Total LVU</b>	<b>£21.5m</b>	<b>£13.3m</b>

Source: AECOM calculation 2020; Values at 2010 prices

### External Land Amenity Value

LVU captures the net private benefits of the dependent development. In addition to this, the external costs and benefits of development can be captured in order to derive net social value.

At Thoresby Colliery, the development will take place on brownfield land and is anticipated to result in land amenity value gain. However, there is currently limited evidence available on the external amenity impact of development on brownfield land. As a conservative assumption, it is assumed that the change in amenity value on the Thoresby Colliery site is zero.

At Teal Close, development will take place on agricultural land predominantly used to grow crops. This type of land aligns with the definition for intensive agricultural land, with estimated land amenity value of £29,000 per hectare in perpetuity<sup>1</sup>. The delivery of net additional 8.9ha of residential development at Teal Close is therefore estimated to amount to an amenity loss of £258,000 in present value (in 2010 prices).

### External benefits from affordable housing

The analysis also considers the external benefits arising through the provision of affordable housing which are additional to private benefits captured by LVU.

Social housing delivers additional health benefits which measure the annual net savings on health costs due to the provision of affordable housing, which helps to alleviate overcrowding and rough sleeping. It is estimated that the Scheme delivers a net additional £20,880 in external benefits associated with affordable housing (expressed as present value over a 30-year period).

### Supporting employment and economic growth

The two sites unlocked by the Scheme are of strategic importance for the area and will support a large number of employment opportunities. It is estimated that once fully operational, Thoresby Colliery site will support 1,048 gross direct jobs, making a significant economic contribution to the local economy in Newark & Sherwood as well as Nottinghamshire more widely (as illustrated by indicative Gross Value Added benefits of £46.4m per annum). Only a quarter of employment space at the site could come forward without the improvements being implemented, therefore the Scheme plays an important role in ensuring the employment impacts on the site materialise in full.

The Scheme will also benefit the site at Teal Close, which is estimated to support a further 684 gross direct jobs (with associated Gross Value Added benefits of £38.2m per annum). The employment land at Teal Close is not identified as dependent on the improvements, however, given the constraints to the residential aspect of the development, the

<sup>1</sup> DfT (2020) TAG Workbook Valuing Dependent Development

implementation of improvements will be beneficial in ensuring the site is built out in full and employment impacts materialise.

In addition to direct jobs, a range of indirect and induced jobs will be supported through multiplier effects in the economy. In total, 1,153 direct, indirect and induced jobs could be supported locally by the development at Thoresby Colliery and 752 total jobs at Teal Close. At the regional level, the two sites could support 2,598 direct, indirect and induced jobs.

Furthermore, the development unlocked by the Scheme will support additional fiscal impacts in the form of local council tax and business rates revenues. The development at Thoresby Colliery is estimated to generate an additional c. £1.5m per annum of council tax revenues for Newark and Sherwood (of which c. £1.2m would be associated with the dependent housing on the site). In addition, c. £600,000 in business rates revenues would be generated per annum (of which c. £450,000 is estimated to be associated with the dependent development on the site). Similarly for Teal Close, the development could contribute additional c. £1.5m per annum in council tax revenue for Gedling Council (of which £1.1m would be associated with the dependent housing on the site). The additional business rates revenue associated with the employment space at Teal Close is estimated to amount to a further £420,000 (although it should be noted that the employment space at Teal Close is not considered to be dependent on the Scheme).

### **Improving business efficiency and supporting investment**

The improved journey times on the network as a result of the Scheme are expected to lead to increased economic efficiencies and improved competitiveness for businesses through cost savings, as well as increased certainty and ability to plan as the network becomes more reliable.

The Scheme will relieve business constraints currently experienced along the route and at pinch points at the identified junctions. In addition to addressing safety and congestion concerns, engagement with businesses along the route identified the potential for the Scheme to influence investment decisions. The reduced travel times and improved reliability along the network will allow businesses to improve processes resulting in greater efficiency through increased delivery speeds, later delivery cut-off times and increased output, particularly for road-reliant sectors. These conditions allow businesses to interact more efficiently with each other and their supply chain. The knock-on effect will ultimately lead to increased productivity, a key priority for the regional economy.

Improved performance on the transport network can increase the attractiveness of the route as a place for business, allowing businesses to expand as well as drawing new investment to locate in the area. Business engagement has identified that a number of companies along the route are currently constrained in their ability to expand their operations due to the issues experienced at the junctions. The delivery of the Scheme would be expected to directly support increased investment into the area by relieving constraints on businesses. The overall impact has the potential to encourage inward investment into the area, as business locations along the route become more attractive.

### **Tourism sector impacts**

Tourism is one of the key sectors along the A614/A6097 route with nationally-significant assets located along the corridor including Center Parcs, Sherwood Pines and Rufford Park. Consultations with these organisations identified that the congestion and delays on the network and queues at key junctions are impacting on visitor satisfaction levels, affecting perceptions and likelihood of return visits. The Scheme has the potential to greatly benefit



the visitor experience to key tourism destinations along the A614/A6097 corridor. In doing so, the Scheme will encourage return trips as well generating reputational benefits for Nottinghamshire's tourism cluster as a whole.

In addition, the Scheme could benefit the tourism sector by allowing organisations to operate more efficiently through reduced churn of labour, as well as allowing to attract more workers to the area. Current conditions on the network have been identified by consultees as impacting on ability to attract and retain staff. These challenges have been echoed by employers in other sectors along the route. Alleviating these issues could therefore bring benefits for tourism as well as other sectors along the route.

### **Deprivation and social impacts**

The combination of transport and housing benefits enabled by the scheme will support further social impacts for communities along the corridor. The additional high quality housing and social infrastructure enabled by the dependent development along the A614 will support physical regeneration and improved infrastructure provision, as well as access to high quality jobs. These factors are important in delivering regeneration outcomes and demonstrate how an improved road network can lead to improved neighbourhoods and attractiveness of places. The additional local services will enhance the vitality of places, adding value to quality of life and contributing to wider physical regeneration outcomes.

### **Contributing to housing growth and development**

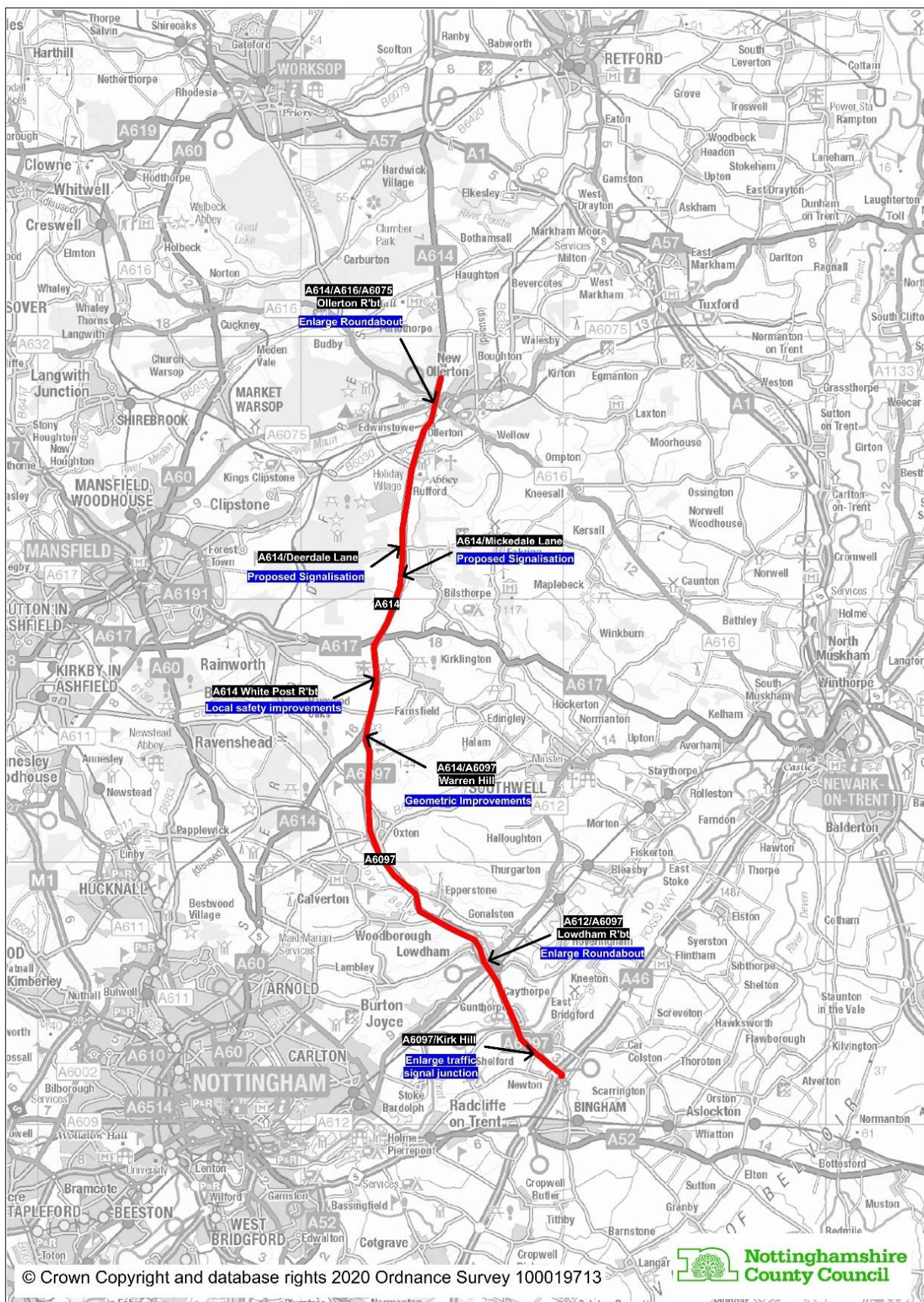
In addition to unlocking development dependent on the Scheme, improvements to the A614/A6097 corridor have the potential to contribute to the wider growth agenda in the local authorities along the corridor. Major development opportunities are planned along the route in Newark & Sherwood, Gedling, Rushcliffe and Bassetlaw. The Scheme has the potential to improve the investment conditions along the route, stimulating development. By helping to improve transport conditions and provide consistency of service along the corridor, the Scheme will increase the capacity on the network to help development to come forward, resulting in an uplift in the wider housing and employment land provision - one of the key objectives of the Scheme.

# 1. Introduction

## Background

- 1.1 The A614 is an important north-south route from Nottingham through Gedling, Newark and Sherwood to Bassetlaw and further north. The A6097 provides a spur from the A614 to the A46 (which is a dual carriageway trunk road linking Leicester with Newark and Lincoln). A number of junctions along the route are heavily congested and pose difficulties and dangers for drivers trying to access the A614 from adjoining settlements.
- 1.2 To address these issues, a package of seven junction improvements has been identified along the A614/A6097 corridor by Nottinghamshire County Council (NCC). These are presented in Figure 1-1. For the purposes of the study, the junction improvements are defined as “the Scheme” and include:
  - Ollerton Roundabout – the intersection of the A614 / A616 / A6075 roundabout
  - Deerdale Lane junction – the A614 / Eakring Road / Deerdale Lane crossroads
  - Mickledale Lane junction – the A614 / Mickledale Lane crossroads
  - White Post roundabout – the A614 / Mansfield Road roundabout
  - Warren Hill junction – the A614 / A6097 priority junction
  - Lowdham Roundabout – the A6097 / A612 Nottingham Road / Southwell Road roundabout, and
  - Kirk Hill junction – the A6097/ Kirk Hill junction.
- 1.3 Nottinghamshire County Council has commissioned AECOM to undertake a wider economic impacts study to support the outline business case (OBC) submission to Department for Transport (DfT).

**Figure 1-1 A614/A6097 Corridor Improvements (the Scheme)**



## Purpose and outputs

- 1.4 The purpose of this study is to assess the wider economic benefits of the Scheme. The OBC for the Scheme has quantitatively assessed the journey time impacts and qualitatively described the benefits of reducing vehicle operating costs and reliability. These are categorised as Level 1 impacts in the Transport Appraisal Guidance (TAG) produced by DfT.
- 1.5 This study focuses on assessing the wider economic impacts described in TAG. In particular, benefits of induced investment for dependent developments are captured using land value uplift (LVU) techniques. The study also considers a range of wider non-monetised impacts of the Scheme such as employment and economic growth, economic efficiency and business investment, tourism benefits, and social and deprivation impacts.



## 2. Local Economic Profile

- 2.1 This section of the report details the current economic conditions of those who live and work close to the Scheme as well as those who use the route for longer distance travel. The Local Economic Profile provides a baseline by which the future wider economic benefits of the Scheme can be comparatively assessed. The Local Economic Profile identifies key strengths and challenges faced by local people who live and work close to the Scheme and a review of local business sector composition. This information is key to assessing wider economic benefits which the Scheme will provide.

### Study Area

- 2.2 Six of the component junctions of the Scheme are located within the district of Newark and Sherwood, with A6097/ Kirk Hill junction located in Rushcliffe. It is important to recognise that the A614/A6097 corridor continues outside of the two local authorities, with significant proportions of the route running through Gedling and Bassetlaw. Residents and workers in these local authorities will also consequently benefit from the Scheme. The wider areas of Nottinghamshire, the East Midlands and England are presented as comparative geographies throughout the Local Economic Profile.

### Population

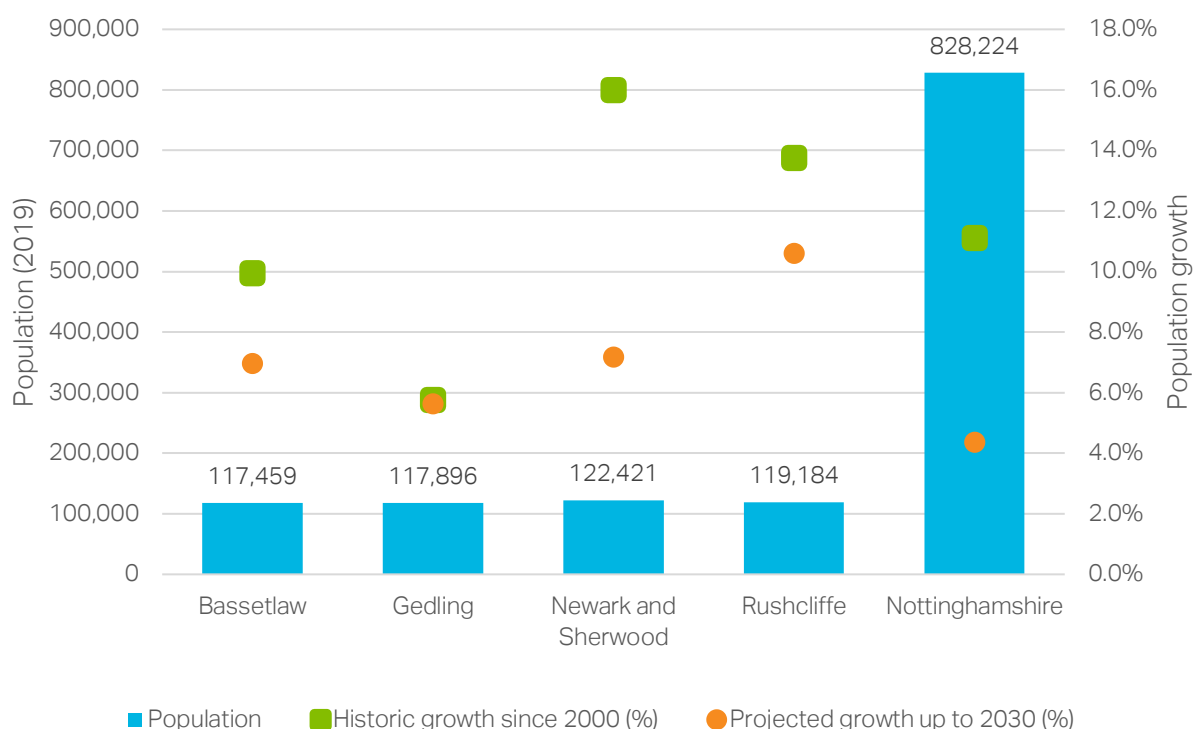
- 2.3 According to the Office for National Statistics (ONS)<sup>2</sup>, Newark and Sherwood has approximately 122,000 residents making up around 15% of Nottinghamshire's population. The district's population has grown by 16.0% since the year 2000, making it the fastest growing district in Nottinghamshire, which has by comparison grown 11.1% over the same time period. Growth across the study area is expected to continue to increase and the latest ONS population statistics forecast an average 7.6% increase in the resident population across the local authorities along the A614/A6097 route over the next 10 years, much faster than the 4.4% expected nationally<sup>3</sup>.

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<sup>2</sup> ONS (2020) Population Estimates

<sup>3</sup> ONS (2020) Population Projections

**Figure 2-1 Population & population growth**



Source: ONS (2020) Population Estimates; ONS (2020) Population Projections

2.4 According to the 2011 Census, the largest population centre along the A614/A6097 route is Ollerton with around 10,000 residents. Lowdham, Bilsthorpe and Farnsfield are also adjacent to the route. These villages have been identified by Newark and Sherwood District Council as 'Principal Villages' in that they have an important role in the provision of day to day services to surrounding areas<sup>4</sup>. Despite these population centres, most of the route runs through relatively rural areas. The population density of Newark and Sherwood, which includes larger urban areas such as Newark-on-Trent, is just 43% of the national average meaning that there are around 2.3 times more people per square kilometre nationally than compared with Newark and Sherwood<sup>5</sup>.

## The Labour Market

### Economic Activity

2.5 The Annual Population Survey<sup>6</sup> conducted by the ONS provides the most up to date economic activity, employment and unemployment statistics for the UK. As of March 2020, the economic activity rate in Newark and Sherwood is 80.1%, which is lower than the surrounding local authorities of Bassetlaw (83.6%), Gedling (85.0%) and Rushcliffe (82.5%) and Nottinghamshire (81.9%). This represents a high proportion of the population compared to historical rates which have been continually increasing over the last 10 years.

<sup>4</sup> Newark and Sherwood District Council (2019) Review of the Newark & Sherwood Local Development Framework Core Strategy & Allocations: Amended Core Strategy Adopted March 2019.

<sup>5</sup> ONS (2019) Mid-Year Population Statistics

<sup>6</sup> ONS (2020) Annual Population Survey Economic Activity Rate and Unemployment Rate April 2019-March 2020

- 2.6 The employment rate in Newark and Sherwood is exactly in line with the national figure at 76.2% of the 16-64 year old population, but is below the adjacent local authorities along the A614/A6097 route and below Nottinghamshire as a whole.
- 2.7 4.9% of Newark and Sherwood's population are unemployed and the district has higher unemployment than all of the other adjacent local authorities, and in particular when compared to Nottinghamshire which has an unemployment rate of just 3.0%. It should be noted that due to small sample sizes the ONS has identified the unemployment figure for Newark and Sherwood as unreliable; however, this is still recognised to be the best available estimate of unemployment for the area.
- 2.8 Data for the economic activity rate and unemployment rate for all geographies is summarised in Table 2-1.

**Table 2-1 Economic activity and unemployment rates aged 16-64**

Location	Economic activity rate	Employment rate	Unemployment rate
Newark and Sherwood	80.1%	76.2%	4.9%
Bassetlaw	83.6%	81.9%	-
Gedling	85.0%	81.9%	3.7%
Rushcliffe	82.5%	80.4%	-
Nottinghamshire	81.9%	79.4%	3.0%
East Midlands	79.7%	76.8%	3.7%
England	79.4%	76.2%	4.0%

Source: Annual Population Survey 2020; Unemployment data for Bassetlaw and Rushcliffe unavailable due to small sample sizes.

- 2.9 Despite this being the most recent release of the Annual Population Survey, these results reflect the March 2020 labour market and so it is unlikely that this data fully incorporates the impacts of the COVID-19 pandemic on economic activity and unemployment rates. It is reasonable to assume that demand deficiencies in the product and service markets may transfer to the labour market, raising unemployment and discouraging economic activity. This is reflected in more recent data sources such as a notable increase in the claimant count. In Newark and Sherwood, the number of people claiming benefits has more than doubled from March to the most recent July 2020 statistical release, from 1,800 people to 3,800 people<sup>7</sup>. This sharp increase has yet to have been captured by many of the ONS' labour market metrics.

## Skills and occupations

- 2.10 The Annual Population Survey also allows for comparison between the qualification levels of different geographies based on National Vocational Qualification (NVQ) levels.<sup>8</sup>
- 2.11 Newark and Sherwood's population is less qualified compared to other geographies. Approximately 11.0% of the local population have no qualifications, far higher than across Nottinghamshire, regionally and nationally which all have a similar percentage from 6.5% to 7%. In addition, the percentage of Newark and Sherwood's population who are educated to degree level or equivalent (NVQ4) is 6.0 percentage points lower than

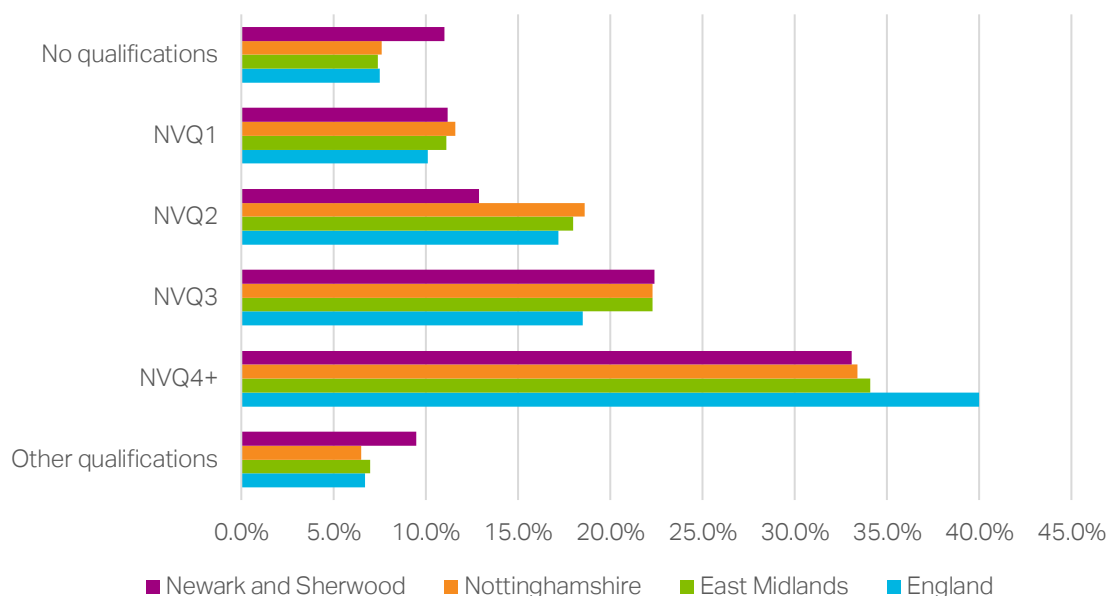
<sup>7</sup> ONS (2020) Claimant Count Statistics

<sup>8</sup> For reference, NVQ1 is the equivalent of holding three to four GCSEs at grade D-E, NVQ 2 is equivalent to those with four to five GCSEs at grade A\*-C, NVQ 3 is equivalent to two or more A Levels while NVQ 4+ is equivalent to degree level or higher.

the national rate although the rate is similar to that for Nottinghamshire and the East Midlands.

2.12 Figure 2-2 provides a visualisation of the maximum qualification levels held by residents of Newark and Sherwood relative to other geographies.

**Figure 2-2 Population by highest NVQ level**



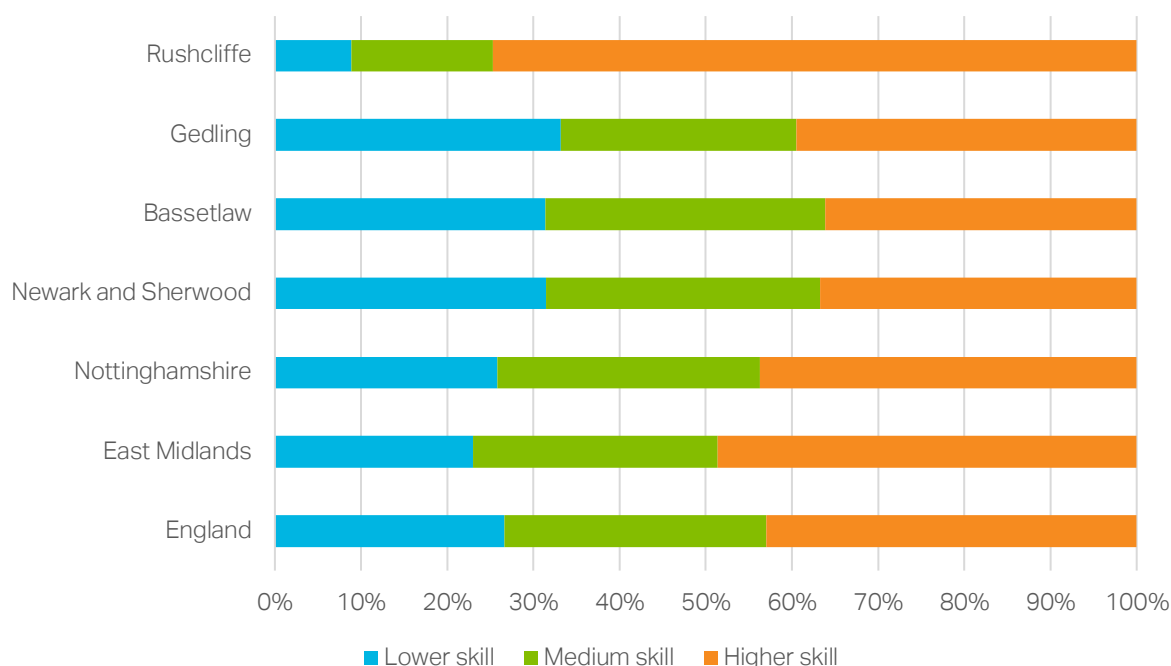
Source: ONS (2020) Annual Population Survey

2.13 The low level of qualifications held by Newark and Sherwood's residents are reflected in the local occupational profile. The occupational profile in Newark and Sherwood is skewed away from higher skilled and more productive occupations towards more elementary occupations where less value is added to the economy, particularly when compared to Nottinghamshire and the East Midlands. The profile is similar across Bassetlaw and Gedling, although Rushcliffe shows a prevalence of higher level skills. The large proportion of workers across lower, medium and higher skilled jobs is set out in Figure 2-3.<sup>9</sup>

<sup>9</sup> Lower skill occupations are defined as: elementary occupations; process, plant and machine operatives; sales and customer service occupations. Medium skill occupations are defined as: caring, leisure and other service; skilled trades occupations; administrative and secretarial. High skill occupations are defined as: associate prof & tech occupations; professional occupations; managers, directors and senior officials.



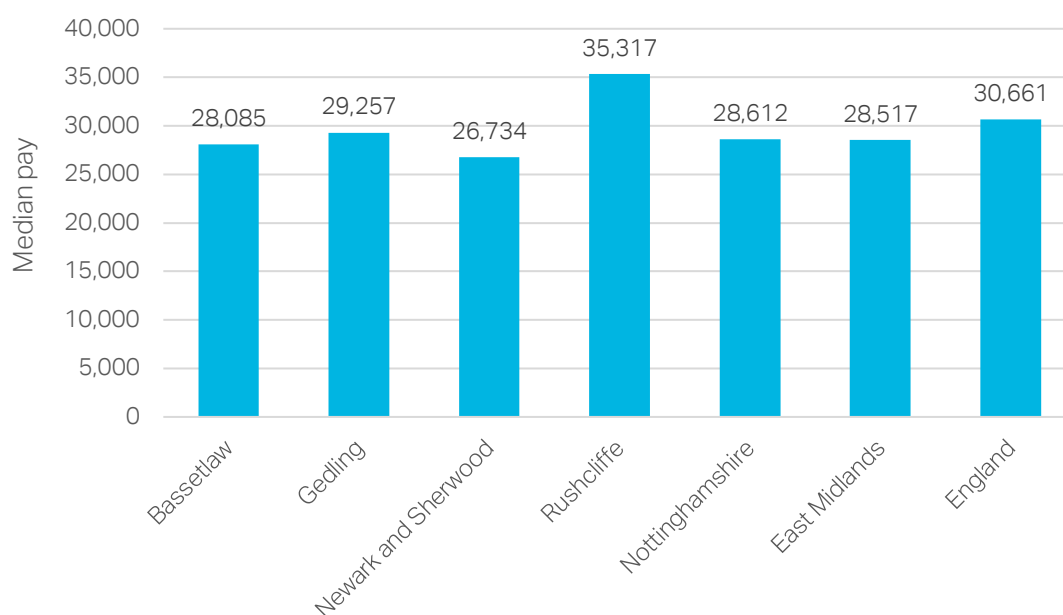
**Figure 2-3 Employment occupations**



Source: ONS (2020) Annual Population Survey

2.14 Lower skilled jobs often translate to less worker compensation by employers which is likely to result in lower earnings. As can be seen in Figure 2-4, median annual earnings in Newark and Sherwood are the lowest in the study area, while the high skill occupational profile in Rushcliffe translates to higher earnings (exceeding local and national comparators).

**Figure 2-4 Gross median annual earnings (resident-based)**



Source: ONS (2019) Annual Survey of Hours and Earnings. Table 8.7a

2.15 The ONS' Job Density Statistics<sup>10</sup> suggests that Newark and Sherwood is a net exporter of labour to other local authorities. Across the district, there are approximately 0.81 jobs

<sup>10</sup> ONS (2019) Job Density Statistics

per working age resident. This figure is considerably higher than the job density in Nottinghamshire as a whole (0.70), possibly due to other local authorities in the county having higher dependency on Nottingham and other major towns and cities as a source of jobs for their residents. Despite also being in line with the job density experienced across the East Midlands (0.80), all of these geographies fall someway behind the 0.87 jobs per working aged person experienced for England as a whole, showing there are fewer jobs in these locations.

- 2.16 The fact that Newark and Sherwood is a net exporter of labour is also reflected in the Origin-Destination data from the 2011 Census<sup>11</sup>. Almost half (47.6%) of Newark and Sherwood's resident population commute to other areas for work, totalling around 20,800 people. By way of contrast, around 17,340 residents of other local authorities commute to Newark and Sherwood for work, suggesting there are still some employment opportunities within the district that can draw labour in from elsewhere but this is outstripped by the number of people leaving the district for work by circa 3,500 people.
- 2.17 Of those who reside in Newark and Sherwood but work elsewhere, a high percentage commute to Nottingham and Mansfield. Indeed, a fairly high proportion travel to surrounding local authorities in Nottinghamshire and Lincolnshire while a proportion also commute even further afield. A breakdown of workplace locations of Newark and Sherwood's residents is presented in Table 2-2.

**Table 2-2 Location of workplace for residents of Newark and Sherwood**

Workplace location	Percentage of resident population
Newark and Sherwood	52.4%
Nottingham	8.0%
Mansfield	7.2%
Ashfield	4.0%
Bassetlaw	3.9%
Gedling	3.4%
Rushcliffe	2.5%
South Kesteven	2.5%
Lincoln	2.2%
North Kesteven	2.1%
Other	11.9%

Source: Census 2011: Location of usual residence and place of work

- 2.18 The 2011 Census<sup>12</sup> also sheds light on the methods of transport used when travelling to work. As can be seen in Figure 2-5, 73.0% of Newark and Sherwood residents are dependent on either driving a car or van, or being a passenger in one in order to travel to work. The high dependency on motor vehicle travel and the high number of residents commuting elsewhere for work means that there is additional strain on roads such as the A614 and A6097 in order to travel to work. The average commuting distance in Newark and Sherwood is a lengthy 18.8km<sup>13</sup> contributing to large numbers of motor vehicles on

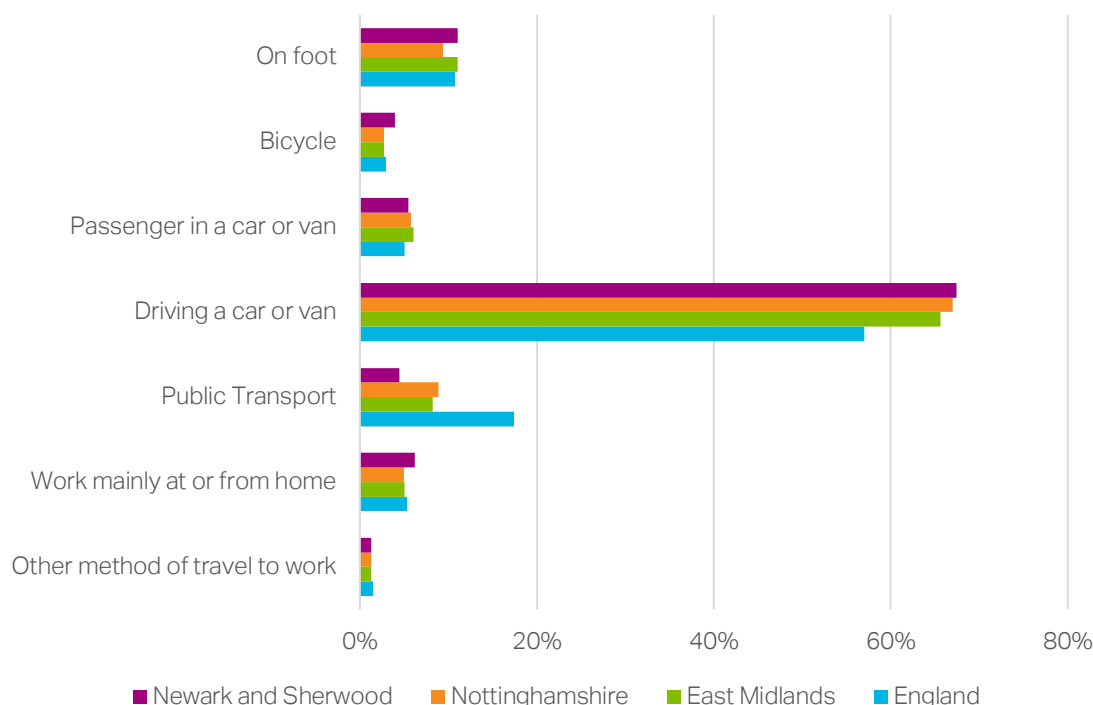
<sup>11</sup> Census 2011: Origin Destination Statistics

<sup>12</sup> Census 2011: Method of Travel to Work

<sup>13</sup> Census 2011: Distance Travelled to Work

roads. This highlights the importance of the major road network in the district and particularly the A614/A6097 corridor in the western part of the district to people who live and work in the district and are dependent on roads for commuting.

**Figure 2-5 Method of travel to work**



Source: Census 2011: Location of usual residence and place of work

## Economic Performance and Composition

2.19 According to NCC's FAME 2020 database, there are approximately 3,500 businesses located within two miles of the A614/A6097 corridor. These businesses employ approximately 97,000 people and have a total operating revenue of over £6.5 billion. Over half of the employees (58%) work in Bassetlaw, with a great many working in parts of Worksop which is located within two miles of the northern end of the route. It should be noted that while these businesses will benefit from the Scheme, they are less dependent on the route than businesses in Newark and Sherwood due to access to faster north-south routes such as the A60, the M1 and the A1. Approximately one third of employees working within two miles of the route corridor live in Newark and Sherwood with businesses particularly clustering in Ollerton, Edwinstowe, Bilsthorpe and Farnsfield. There are also significant clusters of businesses located in Ashfield in Gedling and Bingham in Rushcliffe within two miles south of the southern end of the A614 and A6097 respectively.

2.20 Of these businesses located within two miles of the corridor, the construction sector is the largest with around 500 business. This is followed by the professional, scientific and technical activities sector (430), wholesale and retail trade (400), administration and support services (260), real estate activities (255) and manufacturing (220) sectors respectively.

- 2.21 The 2019 Business Register and Employment Survey (BRES)<sup>14</sup> provides a detailed breakdown of the sectors in which a population is employed in. The low population density in Newark and Sherwood is somewhat reflected in the types of sectors in which its residents work. In particular, 5.4% of Newark and Sherwood's employment is in the primary sector, over double the figure (2.5%) for England, with jobs in the agriculture, forestry & fishing sector particularly high. A major employer in this sector is Strawson Ltd. located in Bilsthorpe which supplies many of the UK's leading supermarkets with locally grown vegetables. Around 90 full time staff are employed at the site, as well as another 250 subcontracted workers during peak times.
- 2.22 Similar to wider Nottinghamshire and the East Midlands, Newark and Sherwood has a high rate of employees who work in manufacturing compared to the national average. This is reflective of the region's historic reputation for high value manufacturing. Within the D2N2 LEP area, the manufacturing sector is the third largest employer and it is the sector which provides the largest contribution to the UK economy (around £8.1 billion). Other major sectors in the D2N2 LEP area (such as trade and health & social network) contribute £5.8 billion and £4.4 billion to the UK economy respectively<sup>15</sup>. The manufacturing sector within D2N2 has grown by 17.2% between 2012 and 2017 highlighting its increasing importance to the region.
- 2.23 Employment in the accommodation and food services sector as well as in the arts, entertainment, recreation & other services sector are both relatively high in Newark and Sherwood compared to other geographies. This indicates that a strong tourism sector exists in Newark and Sherwood and this is discussed in more detail in the next section of the Local Economic Profile.
- 2.24 It is also worth noting that a relatively large proportion of the workforce in Newark and Sherwood are employed in the transport and storage (6.9%), 1.5 times higher than the Great Britain average. This is representative of the district's location at the centre of the UK providing the ability to access and serve large parts of the country in different directions. Access to free flowing roads may be particularly important in improving productivity of businesses in this sector, and other sectors which are generally dependent on road travel for accessing customers and markets, enabling staff to easily commute and importing or distributing goods to and from other parts of the country.
- 2.25 Table 2-3 provides a detailed breakdown of the broad industrial groups in which employees work relative to that seen in Great Britain, for example a score of 2 would mean that area has double the proportion of its employed population working in that sector than Great Britain as a whole while a score 0.5 means the area has half the proportion.

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<sup>14</sup> ONS (2019) Business Register and Employment Survey

<sup>15</sup> D2N2 LEP (2019) Local Industrial Strategy

**Table 2-3 Employment by sector – location quantitative analysis relative to Great Britain**

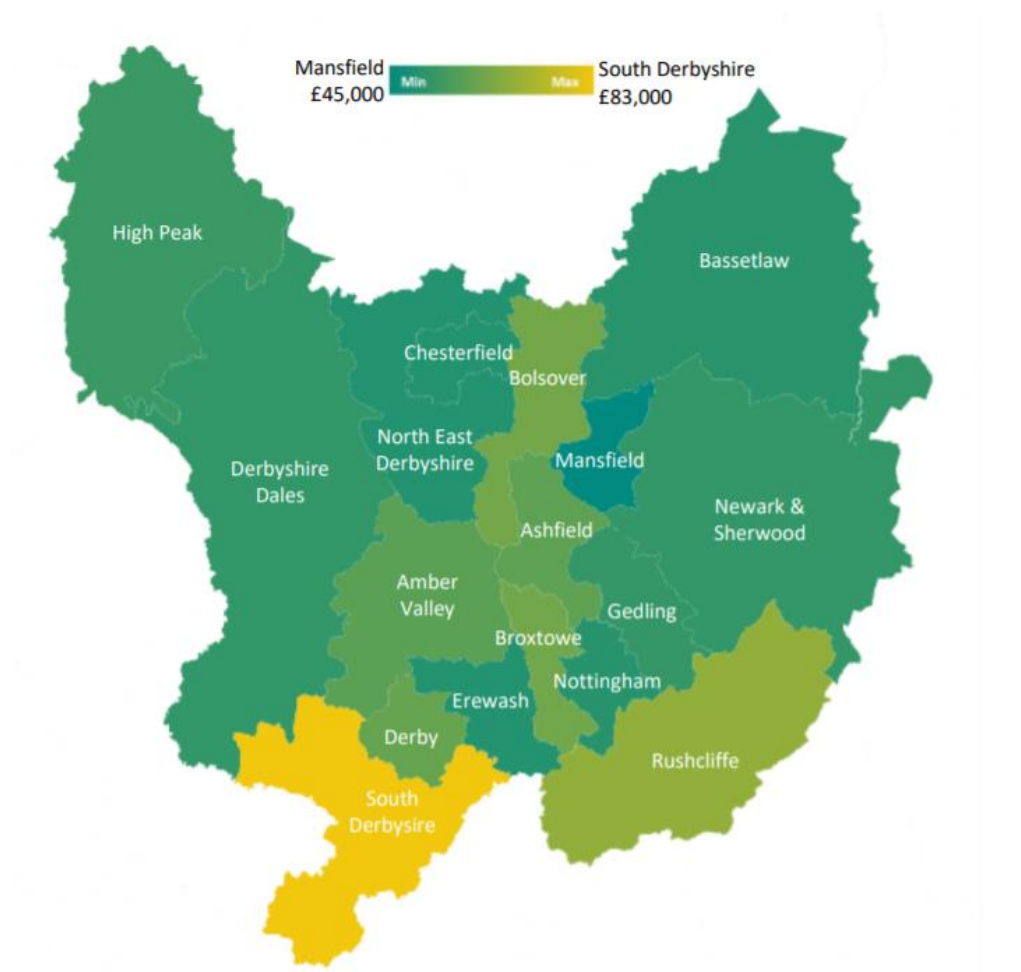
Industry	Newark and Sherwood	Nottinghamshire	East Midlands
Agriculture, forestry & fishing	2.1	1.0	1.1
Mining, quarrying & utilities	1.5	1.2	1.2
Manufacturing	1.5	1.6	1.6
Construction	1.2	1.4	1.0
Motor trades	1.5	1.5	1.3
Wholesale	0.7	1.2	1.3
Retail	1.1	1.1	1.0
Transport & storage	1.5	1.0	1.1
Accommodation & food services	1.6	0.9	0.9
Information & communication	0.7	0.7	0.7
Financial & insurance	0.2	0.3	0.5
Property	0.7	0.7	0.7
Professional, scientific & technical	0.5	0.7	0.7
Business administration & support services	0.8	0.8	1.0
Public administration & defence	0.6	0.8	0.9
Education	0.7	1.0	1.0
Health	0.9	1.1	1.0
Arts, entertainment, recreation & other services	1.3	1.1	1.1

Source: ONS (2019) Business Register and Employment Survey

- 2.26 The sectoral mix of businesses along the corridor, combined with other metrics discussed in the Local Economic Profile influence how productive the corridor is. Productivity can be measured using Gross value added (GVA), which is a representation of the total value of goods and services produced in an area. This measure, per head of population, therefore provides a good indication of productivity.
- 2.27 The D2N2 Local Industrial Strategy Evidence Base provides a useful comparison of productivity per full-time equivalent employment.<sup>16</sup> It shows the broad range of productivity across the region, with employees in South Derbyshire on average producing £38,000 more in GVA per year than a worker in Mansfield. Across the D2N2 LEP area, the highest productivity levels are seen on the southern boundary, with a spine of high productivity bisecting the LEP along the M1 corridor.
- 2.28 Gedling, Newark and Sherwood and Bassetlaw through which the A614/A6097 route traverses have lower productivity levels than elsewhere in the LEP, highlighting the importance of improving interconnectivity with surrounding local authorities. The A6097 which connects Newark and Sherwood with Rushcliffe presents an opportunity for Newark and Sherwood to benefit from the spill over effects of highly productive jobs in this district.

<sup>16</sup> D2N2 LEP (2019) Local Industrial Strategy Evidence Base. Based on statistics from the BRES.

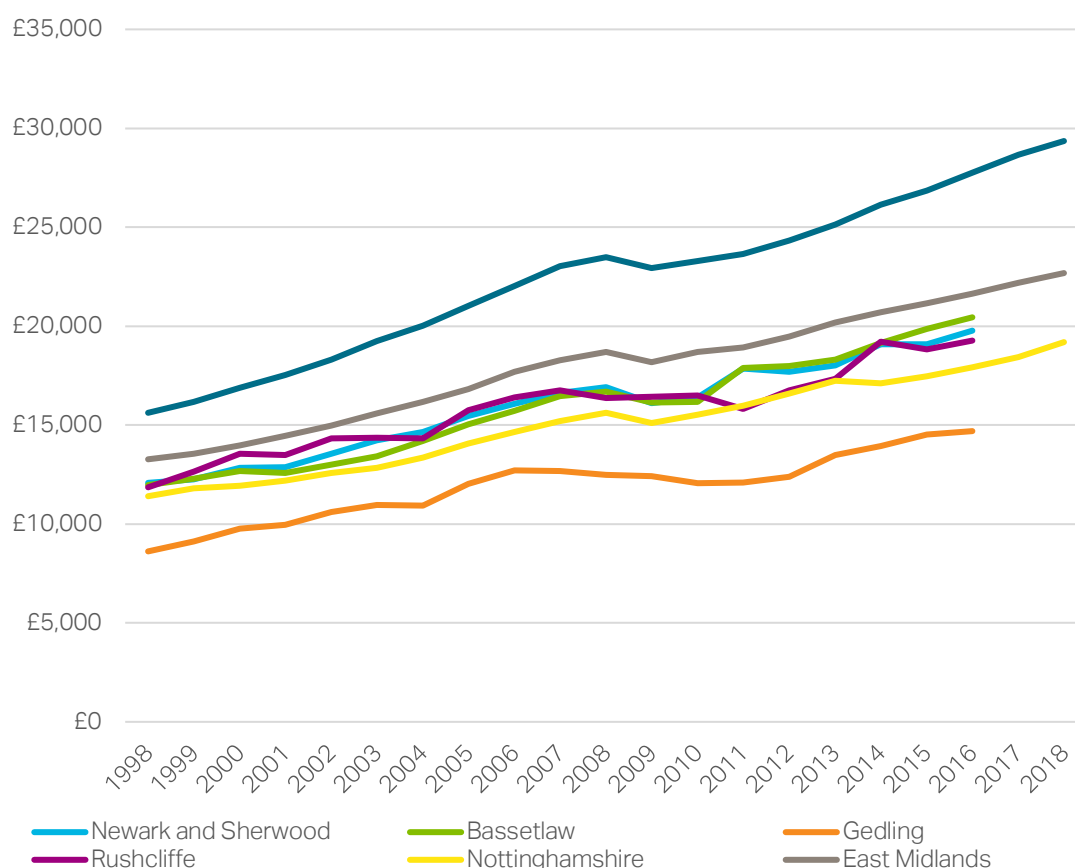
**Figure 2-6 GVA per Full-Time Equivalent Employment within D2N2 LEP**



Source: D2N2 LEP (2019) Local Industrial Strategy Evidence Base. Based on statistics from the BRES.

- 2.29 The high proportion of lower skill jobs in Newark and Sherwood is consistent with the district's lagging productivity. The local authorities adjacent to the Scheme all have similar, if not marginally higher levels of productivity to the Nottinghamshire average with the exception of Gedling which is about £3,300 lower when measured as GVA per head.
- 2.30 In Figure 2-7 it can be observed that productivity in all geographies has been diverging from the national productivity figures since 1998 with this gap increasing over time. It should be noted that the national figure for GVA per head is heavily distorted by highly productive individuals and companies in the England's major cities, especially London. As of 2016, GVA per head in Newark and Sherwood was £19,200 per year, a total of £8,600 less than the £27,800 national productivity figure in the same year. In 1998, the gap in productivity per worker between England and Newark and Sherwood stood at only £3,500 per year.

**Figure 2-7 GVA per head**



Sources: Local authority level – ONS (2017) Regional gross value added (balanced by local authority in the UK. Other geographies – ONS (2019) Regional gross value added (balanced) per head and income components,

Notes: GVA per head data is only available at a local authority level up until 2016. Due to no specific data for Nottinghamshire, an estimation has been calculated by averaging GVA per head in the NUTS3 areas 'North Nottinghamshire' and 'South Nottinghamshire'. This therefore excludes the city of Nottingham itself.

## Tourism

2.31 Newark and Sherwood has a strong tourism sector with attractions such as Clumber Park (National Trust), Rufford Abbey, Center Parcs Sherwood Forest, Sherwood Pines Forest Park, Go Ape and Robin Hood's Wheelgate Family Park all drawing in large numbers of tourists. According to the Newark and Sherwood tourism volume and value data<sup>17</sup>, 4.5 million visitors made the trip to the area in 2019 with Sherwood Forest being of major appeal. The tourism industry is a major economic benefit to the local area, not just as a source of employment, but also because those who spend money on these attractions often originate from outside of the local area, providing an injection of finance to the local economy. The location of key tourism attractions along the A614 corridor is presented in Figure 2-8.

<sup>17</sup> Newark and Sherwood District Council (2020) NSDC Tourism Strategy 2020-23. Available at: [https://democracy.newark-sherwooddc.gov.uk/documents/s8317/09.09.20-%20Forest%20Corner%20Masterplan%20Consultation%20APPENDIX%20C.pdf](https://democracy.newark-sherwooddc.gov.uk/documents/s8317/09.09.20%20-%20Forest%20Corner%20Masterplan%20Consultation%20APPENDIX%20C.pdf)



**Figure 2-8 Key tourism attractions along the A614 corridor**



\*Separating out "Sherwood Forest" visitor numbers is difficult from information available online. Likely to be considerable overlap between numbers given.

Source: Nottinghamshire County Council (2020)

2.32 According to ONS definitions of the tourism industry<sup>18</sup> the size of the sector in Newark and Sherwood has grown in recent years. Business Counts data<sup>19</sup> shows that total number of tourism businesses has grown from 435 in 2010 to 490 in 2019. The Business Register and Employment Survey (BRES) provides data on the number of employees working in the tourism sector between 2015 and 2018. During this time period, there was an approximate increase in the number of tourism related jobs from 6,000 to 8,000. The current 8,000 employees in the sector account for as much as 15.7% of the workforce in Newark and Sherwood far exceeding the 9.3% seen across Nottinghamshire as a whole and the national average of 9.6%<sup>20</sup>.

2.33 Around a quarter of the tourism jobs in Newark and Sherwood are at holiday centres and villages, largely driven by Center Parcs Sherwood Forest and the Center Parcs Head Office in Ollerton. Newark and Sherwood's ability to attract tourists to stay for multiple days at places like Center Parcs and Sherwood Forest helps to support supply chain

<sup>18</sup> ONS (2016) Workers in the tourism sector: examining their private pension savings, Great Britain, July 2012 to June 2014. Annex A: Standard Industrial Classification definitions for the tourism industries

<sup>19</sup> ONS (2019) UK Business Counts

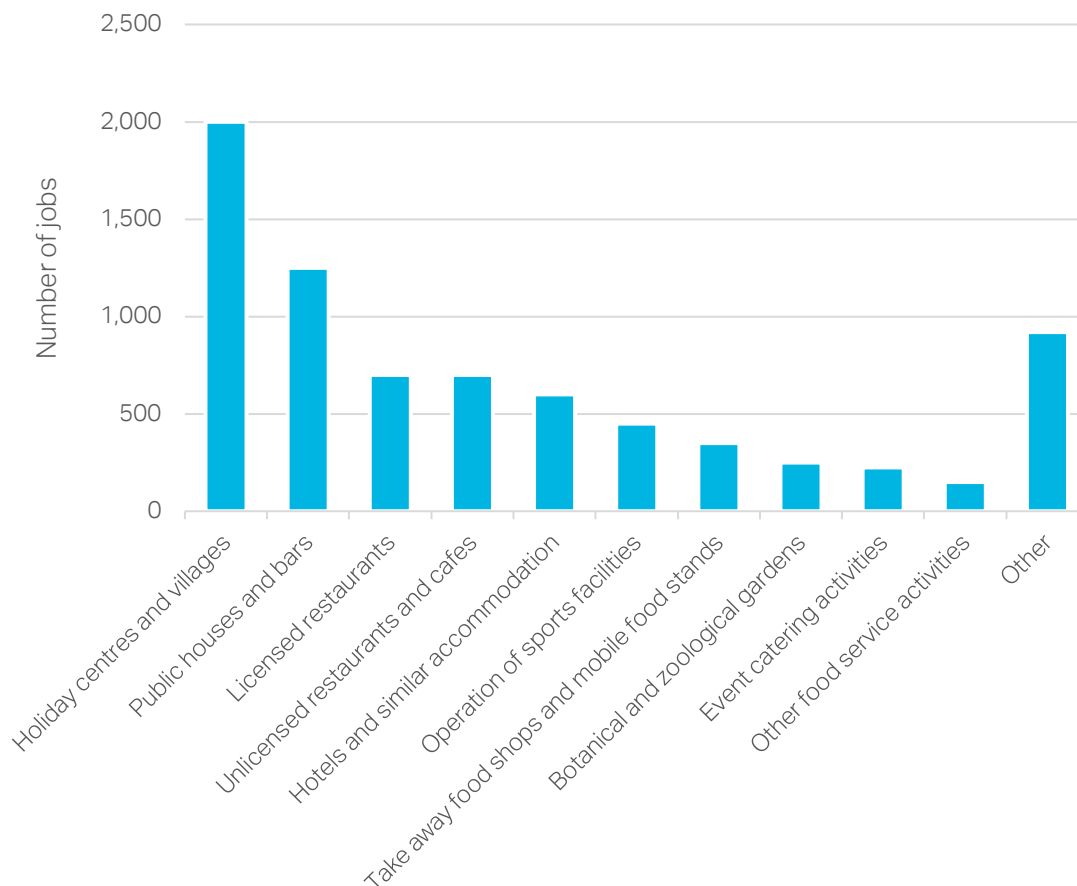
<sup>20</sup> ONS (2019) Business Register and Employment Survey



businesses. For example, the second and third largest source of employment in the district is at public houses and bars and at licensed restaurants. According to Business Counts data by the ONS, there are approximately 100 public house and bar businesses located within the local authority and 50 licensed restaurant businesses.

2.34 A full breakdown of tourism related employment in Newark and Sherwood is provided in Figure 2-9.

**Figure 2-9 Breakdown of tourism jobs in Newark and Sherwood**



Source: ONS (2019) Business Register and Employment Survey

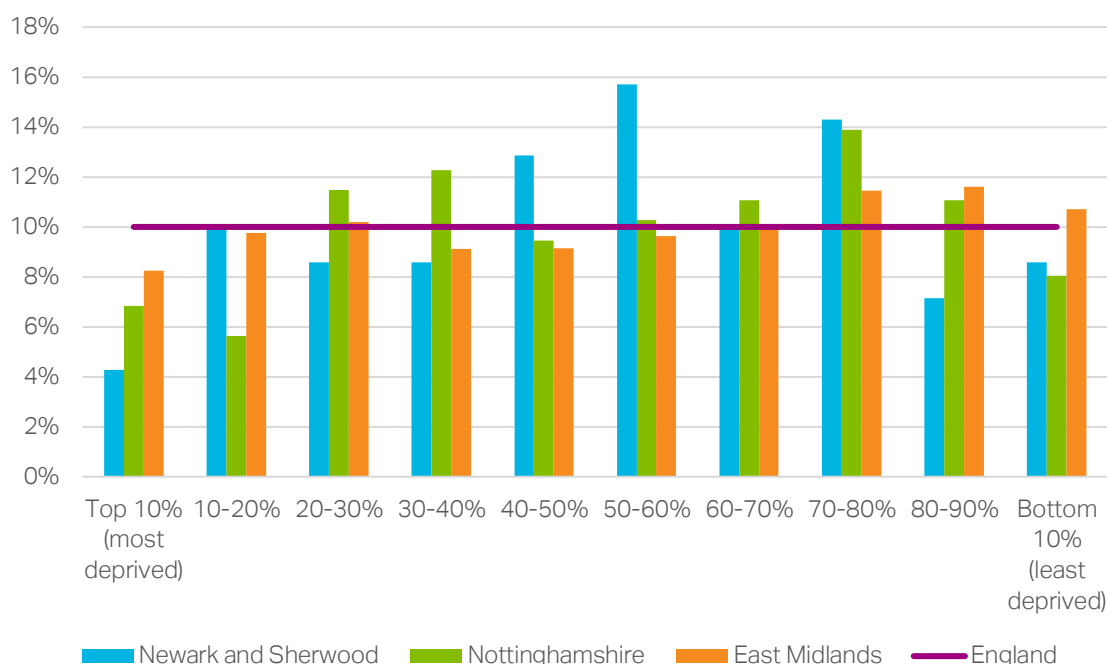
## Deprivation

- 2.35 The English Indices of Deprivation<sup>21</sup>, produced by the Ministry of Housing, Community and Local Government (MHCLG) is a widely used measure of the level of deprivation. The English Indices of Deprivation provides an overall deprivation score (the Index of Multiple Deprivation, IMD) by Lower Layer Super Output Area (LSOA), building upon a series of domains and sub-domains. These statistics provide a measure of the 'relative deprivation' in each LSOA but are not necessarily reflective of the areas' affluence. As such, it is important to recognise that not every person in a highly deprived area will themselves be deprived and likewise, that there will be some people who consider themselves deprived living within what are scored to be the least deprived areas.
- 2.36 The seven sub-domains contribute toward the IMD are as follows:
- Income
  - Employment
  - Education, Skills & Training
  - Health Deprivation & Disability
  - Crime & Disorder
  - Barriers to Housing & Services
  - Living Environment.
- 2.37 The levels of deprivation experienced across the route corridor vary considerably throughout the different LSOAs. In general, more rural areas along the route tend to have lower levels of deprivation. As a consequence, most of the LSOAs adjacent to the A614 south of Ollerton and the whole of the A6097 have low or moderate deprivation. LSOAs close to or incorporating parts of Calverton, Lowdham and East Bridgford are scored by the IMD amongst the top 10% least deprived areas in the country.
- 2.38 A few exceptions can be seen at Bilsthorpe, Blidworth and parts of Gedling to the south where the A614 converges with the A60. LSOAs in these areas tend to be within the 20%-30% or 30%-40% most deprived local authorities in the country. The highest levels of deprivation along the route can be seen in Ollerton where one of the LSOAs is considered within the top 10% most deprived areas in the country. This LSOA is one of only three ranked within the top 10% in Newark and Sherwood with the other two located in Newark-on-Trent.
- 2.39 Of the four local authorities which the route corridor passes through, Bassetlaw is overall assessed as having the highest level of deprivation, scoring as the 108<sup>th</sup> most deprived local authority out of the 317 in England. Newark and Sherwood and Gedling are ranked as 148<sup>th</sup> and 207<sup>th</sup> meaning both areas are ranked mid-table. Rushcliffe meanwhile scores extremely low on the IMD ranking, scoring 314<sup>th</sup> making it the 4<sup>th</sup> least deprived local authority in England.
- 2.40 A full breakdown of the LSOAs in Newark and Sherwood as well as other geographies for comparison, can be seen in Figure 2-10. It shows the diversity of different areas in Newark and Sherwood, with multiple LSOAs considered within each decile.

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<sup>21</sup> Department for Communities and Local Government (DCLG), (2019); English Indices of Deprivation 2019.

**Figure 2-10 Index of Multiple Deprivation**



Source: MHCLG (2019) English Indices of Multiple Deprivation

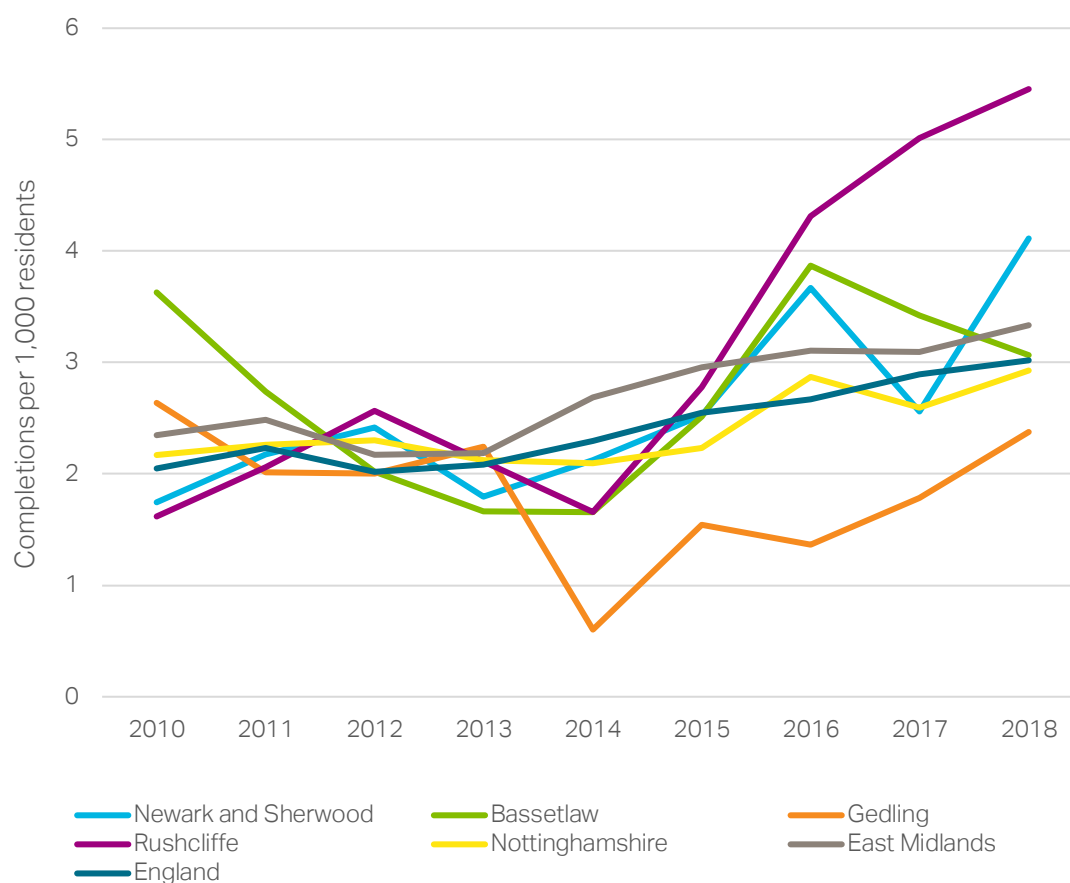
## Housing

- 2.41 The 2019 Newark and Sherwood Amended Core Strategy states that the district's Objectively Assessed Housing Need (OAN) is a minimum of 9,090 new dwellings between the 2013 to 2033 plan period, translating to 478 dwellings per year. Data from MHCLG<sup>22</sup> shows that over the course of 2018, this was on target, with around 500 new dwellings completed in Newark and Sherwood albeit fewer houses were built in the years previous. In total, the district contributed 20.7% of the 2,410 new dwellings completed in Nottinghamshire in the same year highlighting its importance to the county's housing market.
- 2.42 In the following years after the 2008/9 sub-prime mortgage crisis the number of new completions largely stagnated across all geographies. Subsequently, between 2013 and 2018 the total number of new build dwellings has substantially increased. In particular, the number of completions in Rushcliffe in 2018 was almost triple the five-year average number of completions between the start of 2010 and the end of 2014 (650 compared with 238). Meanwhile, Newark and Sherwood has also seen a significant increase in house building, with double the number of completions in 2018 than the average between 2010 and 2014 (500 new dwellings completed against 248).
- 2.43 The East Midlands has been a target for new residential developments at a national level with the number of new build dwellings completed per 1,000 residents being consistently higher than the national figure. Despite this, figures for Nottinghamshire have been generally lower than the national average since 2013, suggesting that the growth has been located elsewhere in the East Midlands region. Newark and Sherwood's high numbers of new build dwellings completed in recent years highlight the district's increasingly important contribution to the housing supply at a county level. Figure 2-11

<sup>22</sup> MHCLG (2020) Live tables on house building: new build dwellings Table 253

provides an overall picture of the number of dwelling completions, weighted for population the population of each area.

**Figure 2-11 Yearly new build dwellings completed per 1,000 residents**



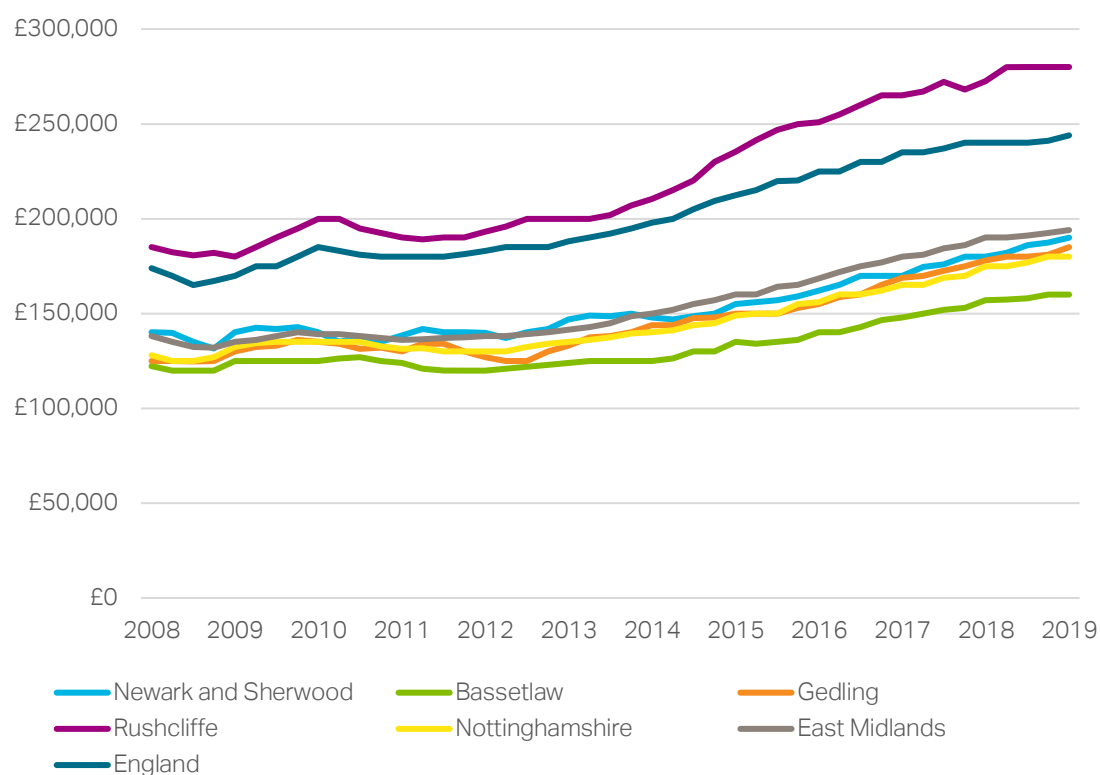
Source: MHCLG (2020) Live tables on house building: new build dwellings Table 253. ONS (2020) Population Estimates

Note: Data for Rushcliffe in 2009 is not available so the Nottinghamshire figure is calculated based on the combined remaining local authorities in that year.

2.44 As with the number of new dwellings completed, house prices also generally stagnated in the years following the 2008 financial crash. Between 2013 and 2019 however, the median price paid for a house has increased by 29.7% at a national level. Although house prices in the East Midlands, Nottinghamshire and Newark and Sherwood have also increased, rapid growth elsewhere in the country (in particular London) has meant there has not been a convergence with house prices in these areas and national median house prices and the nominal difference in house prices are increasing.

2.45 As of December 2019, the median house price in England was £244,000; approximately £50,000 more than the £194,000 median price experienced in the East Midlands and considerably also considerably higher than the £180,000 paid in Nottinghamshire and £190,000 paid in Newark and Sherwood. Figure 2-12 provides a visualisation of how house prices have changed over the last 10 years.

**Figure 2-12 Median house prices**



Source: ONS (2020) Median house prices for administrative geographies: House Price Statistics for Small Areas (HPSSA)

## 3. Opportunities for Growth

- 3.1 Building on the Local Economic Profile, this section focuses on the key opportunities for growth at regional and sub regional level as well as specific opportunities within close proximity to the route corridor. In doing so, it helps to assess how the Scheme will help to remove the hinderances along the route and facilitate wider economic growth.
- 3.2 Firstly, this section focuses on the opportunities for strategic growth with reference to the Midlands Engine and Midlands Connect Strategies for the wider region as well as individual strategies within the Derby, Derbyshire, Nottingham, Nottinghamshire (D2N2) Local Enterprise Partnership (LEP). It subsequently analyses potential opportunities for the tourism sector as well as opportunities for local development close to the route corridor.

### Strategic growth within the wider region

- 3.3 The term 'Midlands Engine' has been coined as a demonstration of the government's commitment to making the Midlands a powerful source of economic growth in the heart of the UK economy. Building on the region's already growing economy, the 2017 Midlands Engine Strategy<sup>23</sup> outlines plans to invest a further £392 million in the Midlands through the Local Growth Fund, on top of the £1.5 billion Local Growth Fund investments which have been previously announced. This funding allocation has been specifically designed to be allocated to projects that improve transport connections between the region's towns and cities as well as connecting isolated areas to the transport network.
- 3.4 Improving connectivity in order to increase productivity is one of the Midland's Engine key objectives. Investments in local transport connections are designed to address the fragmentation of the Midlands' economy which is fairly dependent on the region's 11 cities. The funding will target poorly connected areas which are not able to fully synergise with the region's productive areas, allowing businesses and people to make the most of their strategic position in the centre of the country. Improving transport connectivity could allow for a greater spillover of skills from highly productive areas to less productive areas as well as allowing for increased trade and specialisation throughout the region, ultimately helping to uplift productivity in more isolated areas. These objectives align well with the strategic case of the A614/A6097 Scheme with the route having an important role in regional connectivity from Nottingham to more rural areas.
- 3.5 Midlands Connect, the sub-national body responsible for safe and efficient transportation in the Midlands, has been invited by Midlands Engine to develop proposals for improving connectivity across important corridors in the region. The Midlands Connect Strategy 2017<sup>24</sup> outlines the key objectives by which it will seek to develop proposals. The headline target outcomes of this strategy, provided in Figure 3-1 shows a clear focus on improving the Midlands connectivity not just within a global and national context, but also at a local level. To achieve this objective, the Strategy highlights the need to develop a Major Roads Network (MRN).
- 3.6 It is planned that local authorities will be able to secure new investment in their major road network in order to fully embrace future economic opportunities of improved

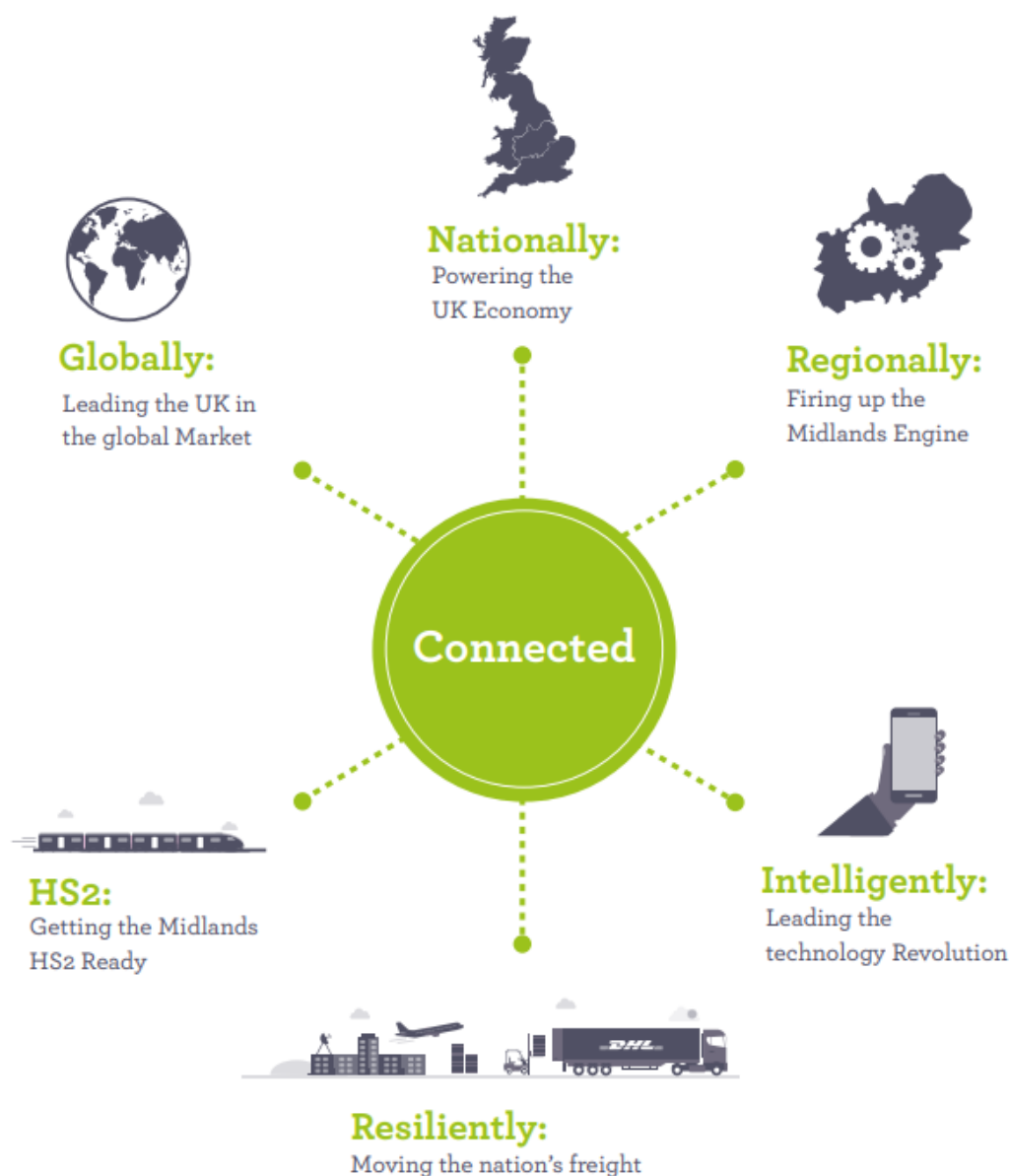
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<sup>23</sup> Midlands Engine Strategy 2017

<sup>24</sup> Midlands Connect (2017) Midlands Connect Strategy: Powering the Midlands Engine

connectivity<sup>25</sup>. A partnership between Midlands Connect, the DfT, D2N2, Transport for the East Midlands (TfEM), Network Rail and HS2 Ltd. will make the case for early improvements to the A614 as part of the MRN. Other key Midlands Connect objectives for the East Midlands include improved access to East Midlands Airport and the new HS2 Hub Station at Toton as well as improved east-west connectivity<sup>26</sup>.

**Figure 3-1: Midlands Connect key objective outcomes**



Source: Midlands Connect (2017) Midlands Connect Strategy: Powering the Midlands Engine

3.7 In the Major Road Network and Large Local Majors priority scheme submission to the Department for Transport<sup>27</sup> by Midlands Connect in the Summer of 2019, junction improvements on the A614/A6097 corridor were highlighted as a strategic priority. The six junction improvements were identified as extremely important in improving both the east-west connectivity between Worksop, Mansfield and Newark as well as the north-south connectivity between Nottingham, Worksop and the M1. In doing so, the scheme

<sup>25</sup> Midlands Connect (2018) Our Routes Our Growth

<sup>26</sup> Midlands Connect (2017) A Shared Vision for The East Midlands

<sup>27</sup> Midlands Connect (2019) The Major Road Network and Large Local Majors. Priority Scheme Submission to the Department for Transport

improvements are able to improve access to jobs for local people living and working in and between these towns and cities as well as allowing easy access to new employment sites such as at Thoresby Colliery and Bingham. The case is also made that the route upgrades will mitigate the expected increases in traffic generated by new housing developments along the route, reducing congestion in the area.

- 3.8 According to the Midlands Connect Strategy, for every £1 invested in the Strategy an additional £2 of economic benefit will be delivered. It is stated that the strategy will boost the regional economy by £5 billion per annum by 2040 through the creation of more than 300,000 new jobs.
- 3.9 Sub-regionally, the whole of the A614/A6097 corridor lies within the area boundaries of the D2N2 LEP. The purpose of a LEP is to provide a partnership between local authorities and businesses in order to decide local economic priorities and undertake activities which drive economic growth and create local jobs.
- 3.10 The D2N2 Strategic Economic Plan<sup>28</sup> establishes a framework for identifying future investment priorities as well as outlining the key actions which will facilitate it's vision for 2030. The plan's key focus is on driving inclusive growth through innovation, with an emphasis on improving productivity and growing businesses, delivering skills and knowledge for the future and enhancing the quality of the place where people live and work.
- 3.11 The Strategic Economic Plan has seen £257 million of transport infrastructure investment since 2013, with the goal of opening up key enterprise sites within Derby and Nottingham. Continued investment from the LEP as well as the Midlands Engine's investments will help to future proof the region and encourage interconnectivity. The strategic case for the Scheme aligns well with D2N2 LEP's objectives to improve connectivity and to unlock potential areas for growth. The LEP believes that a high performing transportation network will benefit D2N2's range of high performing industries which are dependent on the transport network such as in the manufacturing, logistics and extractive sectors. These sectors are shown in the Local Economic Profile to also be important contributors to businesses located within two miles of the route, with a high number of manufacturing and trade businesses in particular.
- 3.12 Among other transport projects, the A614/A6097 corridor is identified as one of the priorities for highway investment. As also identified in D2N2 priorities, Nottinghamshire County Council seeks continued investment in the major road network to improve connectivity around the LEP for more local trips. Greater access to Nottinghamshire's neighbouring towns and cities such as Nottingham, Derby, Leicester, Sheffield and Doncaster will help to propagate economic growth in the likes of Retford, Mansfield and Newark-on-Trent by allowing for synergies between these urban areas.

## The visitor economy

- 3.13 The D2N2 visitor economy is also identified in the D2N2 Strategic Economic Plan as a majorly important provider of jobs and income, contributing around £6bn to the East Midlands economy. VisitBritain/ VisitEngland predict that inbound tourism to Britain is due to grow by 3.8% every year until 2025, demonstrating the region's outstanding natural, cultural and sporting assets.

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<sup>28</sup> D2N2 (2019) Vision 2030: Strategic Economic Plan



- 3.14 Nottinghamshire County Council's Place Departmental Strategy 2019 to 2021<sup>29</sup> sets out the Council's short term actions and longer term vision for the future of Nottinghamshire, focused on improved quality of life for its residents and becoming an increasingly better place to start and grow businesses. The strategy outlines the diverse economic landscape across the county, with areas in the south of the county such as Rushcliffe and Gedling having considerably higher productivity, qualification levels, unemployment and lower levels of deprivation.

The Nottinghamshire Visitor Economy Strategy 2019 to 2029<sup>30</sup> details Nottinghamshire's good position to grow tourism by volume and value, creating both jobs and economic growth in a sustainable way. Nottinghamshire County Council's goals for 2023 and 2029 detailed in the Strategy are summarised in Table 3-1.

**Table 3-1 Nottinghamshire Visitor Economy Strategy - Goals for 2023 and 2029**

Goals for 2023	Goals for 2029
1 million additional visitors	5 million additional visitors
742 additional FTE jobs	2,900 additional FTE jobs
£57.5 million additional economic impact (direct and indirect)	£340 million additional economic impact (direct and indirect)
£18 million additional GVA	£80 million additional GVA

Source: Nottinghamshire County Council (2019) Visitor Economy Strategy 2019 to 2029

- 3.15 Strengthening the sense of place for visitors along the A614 is discussed as a key development project within the Visitor Economy Strategy. The use of latest technology to create high quality and well-signed visitor routes as well as visitor friendly bus lanes between Nottingham and Sherwood Forest will be encouraged. This highlights the important role the route could play in helping to support the sector, which as discussed in the Local Economic Profile, plays an important role in driving the local economy.
- 3.16 Sherwood Forest's connection with the legendary Robin Hood is a major attraction to the area, with key tourism assets such as the Sherwood Forest Visitor Centre, the Major Oak (the biggest oak tree in Britain), and Robin Hood's Wheelgate Family Park being specifically themed to capitalise on this. The Visitor Economy Strategy specifically targets giving 'Robin Hood and Sherwood a much stronger visibility across the county' as well as 'delivering more things to do in the countryside that are branded and connected to the Sherwood and Robin Hood theme' and the areas key tourism assets will benefit from this emphasis.
- 3.17 In support of these objectives, the Forest Corner Masterplan<sup>31</sup> has been created to establish a vision and list of options for development close to Sherwood Forest, the Visitor Centre, and the village of Edwinstowe. These options include the expansion of Sherwood Corner such that it offers new facilities, events and attractions which will increase the area's appeal. Other options include the possibility of increased sports offering close to the forest, more open space for wildlife and recreation, food and beverage enhancements with a focus on local produce, as well as new cycle paths and parking spaces to improve connectivity for residents and visitors.

<sup>29</sup> Nottinghamshire County Council (2019) Place Departmental Strategy 2019 to 2021

<sup>30</sup> Nottinghamshire County Council (2019) Visitor Economy Strategy 2019 to 2029

<sup>31</sup> Leonard Design Architects (2020) Forest Corner Masterplan

- 3.18 With 4.5 million tourists making a trip to Newark and Sherwood in 2019<sup>32</sup>, the Newark and Sherwood Core Strategy<sup>33</sup> emphasises its commitment strengthening of the local tourism sector by supporting the numerous recreation attractions across the district. The tourism sector features in the 2013 Newark and Sherwood Allocations & Development Management Plan<sup>34</sup> with a policy to build a new Sherwood Forest Visitor Centre at Edwinstowe, a project which is now successfully completed and operational.

## Opportunities for local development

- 3.19 As stated in the description of the study area, although the A614/A6097 junction improvements are all located within Newark and Sherwood, a considerable proportion of the route corridor passes through Bassetlaw and Gedling, with a small section of the A6097 also converging with the A46 in Rushcliffe near Bingham. Each of these local authorities face the challenge of ambitious housing targets, which will influence the economic landscape of the route corridor.
- 3.20 A common theme across these districts' Local Plans is the need to provide residential developments which create balanced communities of varying types sizes and tenures and maintenance of local services and facilities. Without intervention on the A614/A6097, developments to provide housing and employment land may be limited - particularly at the Thoresby Colliery and Teal Close developments, both of which have planning constraints which are dependent on specific road improvements included within the Scheme. Evidence from consultation conducted as part of this study also indicates the viability of other projects along the corridor are weakened by congestion which impacts on demand and therefore sale value of residential properties and employment space<sup>35</sup>.
- 3.21 As detailed in the Newark and Sherwood Core Strategy<sup>36</sup>, Ollerton's role as the main service centre within the Sherwood area will be reinforced by the provision of new housing, employment opportunities which will also help to regenerate the town. The nearby development of Thoresby Colliery will provide an additional 800 residential properties and approximately 3.2 hectares of employment land close to the town subject to improvements on Ollerton roundabout. The Land North of Petersmith Drive development is also expected to provide 305 residential properties in Ollerton.
- 3.22 The villages of Lowdham, Bilsthorpe and Farnsfield, all adjacent to the route corridor, are designated in the Newark and Sherwood 2019 Core Strategy as Principal Villages for their local area. This designation outlines the continued importance of these villages in providing a good supply of day to day facilities for local people in order to complement the role of larger service centres, as well as a source of local employment. Reduced congestion along the A614/A6097 corridor, as well as the developments dependent on

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<sup>32</sup> Newark and Sherwood District Council (2020) NSDC Tourism Strategy 2020-23. Available at: <https://democracy.newark-sherwooddc.gov.uk/documents/s8317/09.09.20%20-%20Forest%20Corner%20Masterplan%20Consultation%20APPENDIX%20C.pdf>

<sup>33</sup> Newark and Sherwood District Council (2019) Review of the Newark & Sherwood Local Development Framework Core Strategy & Allocations: Amended Core Strategy Adopted March 2019.

<sup>34</sup> Newark and Sherwood District Council (2013) Newark and Sherwood Local Development Framework. Allocations & Development Management Development Plan Document

<sup>35</sup> Consultations with major businesses in the area have supported this assertion. This includes identified problems with obtaining planning permission for an expanded site for one of the businesses if Mickledale Lane junction is not improved. Planning restrictions as a result of congestion along the route are also reported to inhibit the financial viability of developments and affecting housing values through reduced demand for housing as a result of congestion.

<sup>36</sup> Newark and Sherwood District Council (2019) Review of the Newark & Sherwood Local Development Framework Core Strategy & Allocations: Amended Core Strategy Adopted March 2019.

the route upgrades could significantly improve these villages potential ability to cater for the surrounding rural areas.

- 3.23 The Newark and Sherwood Core Strategy presents the more rural western part of the district as suffering from poor transport connectivity despite the A614/A6097 bisecting the area. The strategy states that improvements to the A614/A6075/A616 Ollerton Roundabout are required to accommodate any additional growth in the north west of the district, highlighting how the route is potentially stifling economic development in the area.
- 3.24 At the northern end of the corridor, Bassetlaw District Council has made contributions towards the improvements at the A614 Blyth Road/A57/A1 Roundabout, enabling access to local employment in Worksop and Retford as well as easing flow to larger cities such as Doncaster and Sheffield from the corridor. Plans for the Bassetlaw Garden Village were also identified in the Local Plan<sup>37</sup>, consisting of at least 750 dwellings and 15 hectares of employment land during the Local Plan period to 2037. Although the site of the Garden Village is still to be confirmed, several potential sites have been identified close to the northern end of the A614 at Gamston, Bevercotes and Morton<sup>38</sup> which could also benefit from the A614 junction upgrades for southerly journeys.
- 3.25 The Greater Nottingham Aligned Core Strategy<sup>39</sup> highlights the important role the A614 plays as the main northern route from Nottingham towards the A1 through Gedling. Although transport links between Gedling and Nottingham are identified as strong, links between Gedling and the different settlements in and around the conurbation are poorer with some more rural settlements being relatively isolated. The A60 and the A614 are the only two major roads in the borough.
- 3.26 The more recent 2018 Gedling Borough Local Planning Document<sup>40</sup> provides details of local transport scheme improvements. Although none of the upgrades as part of the Scheme to the A614 are mentioned within Gedling Borough, there are various route improvements to the A60 and A612 included as part of the Local Plan.
- 3.27 There are several major planning applications for large scale housing developments in Gedling close to the A614/A6097 corridor, including 650 residential properties at Calverton, 830 residential properties at Teal Close (subject to junction improvements at Lowdham Roundabout) and 1,050 residential dwellings at Gedling Colliery. A full breakdown of major planning applications close to the route corridor is provided in Table 3-2.

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<sup>37</sup> Bassetlaw District Council (2020) Draft Bassetlaw Part 1 Local Plan

<sup>38</sup> Bassetlaw District Council (2019) Possible Garden Village Sites: Preliminary Accessibility Appraisal

<sup>39</sup> Greater Nottingham Plan Partnership (2014) Broxtowe Borough, Gedling Borough, Nottingham City Aligned Core Strategies

<sup>40</sup> Gedling Borough Council (2018) Local Planning Document Part 2 Local Plan

**Table 3-2 Major developments along the A614/A6097 corridor**

<b>Name of Development</b>	<b>Local Authority</b>	<b>Number of dwellings</b>	<b>Other notable provisions</b>
Bassetlaw Garden Village	Bassetlaw	750	15 hectares of employment land
Land North of Petersmith Drive	Newark and Sherwood	305	None
Thoresby Colliery	Newark and Sherwood	800	3.2 hectares of employment land, country park, primary school, two priority junctions on A6075 Ollerton Road
Land East of Eakring Road	Newark and Sherwood	85	None
Kirklington Road	Newark and Sherwood	136	None
Oldbridge Way	Newark and Sherwood	113	None
Calverton	Gedling	650	None
Teal Close	Gedling	830	1.8 hectares employment land, local centre and primary school
Gedling Colliery	Gedling	1050	Local centre with retail units, health care and primary school
RAF Newton	Rushcliffe	500	2.6 hectares employment land
Bingham	Rushcliffe	1000	5.5 hectares of employment land

Source: Nottinghamshire County Council (2020)

## 4. Assessment of Wider Economic Benefits

- 4.1 Improvements to the transport network influence behaviour and patterns of economic activity. The majority of such impacts are captured by the transport user benefits of the scheme, which arise through reduced costs of travel for different users across different sectors. However, where market failures exist which stop markets operating efficiently, transport interventions can give rise to wider economic impacts in addition to the transport benefits.
- 4.2 The transport impacts of the Scheme are presented in the Transport Economic Appraisal Report<sup>41</sup>. In addition to the transport impacts, the Scheme will support additional benefits by relieving constraints on development and unlocking property investment. These benefits are assessed in terms of land value uplift (LVU) which will contribute to the economic case of the Scheme OBC. In addition, this section presents a qualitative assessment of scheme benefits for businesses and key tourism assets along the route corridor.

### Dependent Development & Land Value Uplift

- 4.3 LVU<sup>42</sup> is a technique used to capture the benefit which arises from new development which would not occur, or would occur in a reduced capacity, without the Scheme. These new developments can be considered to be 'dependent' as per the Department for Transport's (DfT) Transport Appraisal Guidance (TAG)<sup>43</sup>. The quantum of dependent development is assessed and presented in the Transport Economic Appraisal Report<sup>44</sup>. A summary of housing and employment land on dependent sites which will be enabled by the Scheme is presented in Table 4-1.
- 4.4 The scale of housing and employment land which is dependent on the Scheme was determined by planning conditions which are restricting the developments coming forward in full. Some development on dependent sites will come forward irrespective of whether the Scheme is progressed.
- 4.5 LVU is calculated for residential, B1 (business<sup>45</sup>) and B2 (general industrial) employment uses as MHCLG does not provide land value data for the other uses (land values for these uses are presented in Appendix A). Therefore, for the employment land element only the quantum of commercial (B1 and B2) land is presented in Table 4-1, however small amounts of other uses (such as community and social infrastructure) will also be provided on the sites.

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<sup>41</sup> AECOM (November 2020) Transport Economic Appraisal Report

<sup>42</sup> LVU associated with dependent development arising as a consequence of a transport scheme can be used as a proxy for welfare benefits. The approach to estimating LVU is set out in the Department for Communities and Local Government's (DCLG) appraisal guidance.

<sup>43</sup> Department for Transport (May 2018), TAG Unit A2.2 – Appraisal of Induced Investment Impacts

<sup>44</sup> AECOM (November 2020) Transport Economic Appraisal Report

<sup>45</sup> Business uses including offices, research and development, and industrial processes.

**Table 4-1 Quantum of development by site: grand total and total which is dependent**

Development site	Grand total homes	Dependent homes	Grand total employment land (Ha)		Dependent employment land (Ha)	
			B1	B2	B1	B2
Thoresby Colliery (Newark and Sherwood)	800	650	1.9	1.4	1.4	1.0
Teal Close (Gedling)	830	590	0.4	1.4	-	-
<b>Total</b>	<b>1630</b>	<b>1,240</b>	<b>2.3</b>	<b>2.8</b>	<b>1.4</b>	<b>1.0</b>

4.6 The delivery phasing for the two dependent development sites is described further in the Transport Economic Appraisal Report<sup>46</sup>. The analysis assumes even delivery between opening year and completion.<sup>47</sup>

4.7 Two scenarios have been considered with regards to dependent development:

- the Reference Case, which is based on the number of homes and employment land expected to come forward without the proposed Scheme; and
- the Intervention Case, which is based on the number of homes and employment space which is expected to come forward with the proposed Scheme in place.

4.8 The scale of development likely to come forward in the Reference Case and the Intervention Case at each site is presented in Table 4-2 and Table 4-3. Net additional effects are presented at a sub-regional level as it is considered that at national level there is 100% displacement. Detailed assumptions are set out in Appendix A.

4.9 At Thoresby Colliery, the estimated net additional development, accounting for displacement and deadweight, is 11.5ha (net) of residential and 1.5ha (net) of commercial development land.

**Table 4-2 Dependent development effects at Thoresby Colliery: gross and net additional**

	Residential		Commercial: B1		Commercial: B2	
	Intervention Case	Reference Case	Intervention Case	Reference Case	Intervention Case	Reference Case
Gross Direct Effects (ha)	22.9	4.3	1.9	0.5	1.4	0.3
Net Local Direct Effects (ha) (post-displacement)	14.2	2.7	1.1	0.3	0.8	0.2
Net Additional Effects of the Scheme (ha)	11.5		0.9		0.6	

Source: AECOM calculation 2020

<sup>46</sup> AECOM (2020) Transport Economic Appraisal Report

<sup>47</sup> Thoresby Colliery: construction to commence in 2020 at a build out rate of 50 -60 houses per annum; Teal Close assumed build out of 60 per annum from 2019 onwards.

4.10 At Teal Close, the estimated net additional development, accounting for displacement and deadweight, is 8.9ha (net) of residential land.

**Table 4-3 Dependent development effects at Teal Close: gross and net additional**

	Residential	
	Intervention Case	Reference Case
Gross Direct Effects (ha)	23.7	9.3
Net Local Direct Effects (ha) (post-displacement)	14.7	5.8
Net Additional Effects of the Scheme (ha)	8.9	

Source: AECOM calculation 2020

4.11 The LVU associated with the development is presented in Table 4-4. The Scheme is estimated to deliver a present value of benefits of £21.5m gross LVU and £13.3m net additional LVU. The methodology underpinning the assessment and the key assumptions are presented in Appendix A.

**Table 4-4 Land Value Uplift**

	Gross impact of Scheme	Net impact of Scheme
Residential Land Value Uplift	£21.0m	£13.0m
Commercial Land Value Uplift	£0.5m	£0.3m
<b>Total LVU</b>	<b>£21.5m</b>	<b>£13.3m</b>

Source: AECOM calculation 2020; Values at 2010 prices

### Sensitivity testing

4.12 The sensitivity tests demonstrate the impact of applying different land values and how they impact on LVU. The sensitivity scenarios were informed by a number of analyses, including:

- Comparison of MHCLG's residential and commercial land value benchmarks between Newark & Sherwood, Gedling and local authorities in Nottinghamshire;
- Comparison of residential sales values from Zoopla<sup>48</sup> between Newark & Sherwood, Gedling and local authorities in Nottinghamshire; and
- Comparison of industrial and office market rent and sales values from CoStar<sup>49</sup> between Newark & Sherwood, Gedling and surrounding local authorities.

4.13 On the basis of reviewed values, the identified sensitivity tests conducted include:

- ± 10% for the value of residential land;
- ± 10% for the value of B1 land, and
- ± 10% for the value of B2 land.

4.14 The results of the sensitivity testing are presented in Table 4-5. The tests show that if residential and commercial (B1 & B2) values are lower than the MHCLG area benchmark

<sup>48</sup> Zoopla (2020) House prices and values; Accessed September 2020.

<sup>49</sup> CoStar (2020) Custom Market Report, Accessed September 2020.

by 10%, the Scheme would deliver circa £12m in net additional LVU. Where values are higher than the MHCLG benchmark by +10% the net additional LVU would increase to £14.7m. These values compare to LVU of £13.3m based on MHCLG benchmark, as set out in Table 4-4.

**Table 4-5 Land Value Sensitivities Tests**

	<b>Sensitivity test: Land value change</b>	<b>Gross impact of Scheme</b>	<b>Net impact of Scheme</b>
Residential Land Value Uplift	High (+10%)	£23.1m	£14.3m
	Low (-10%)	£18.9m	£11.7m
Commercial Land Value Uplift	High (+10%)	£0.6m	£0.4m
	Low (-10%)	£0.5m	£0.3m
Total LVU	High	£23.7m	£14.7m
	Low	£19.4m	£12.0m

Source: AECOM calculation 2020; Values at 2010 prices

## External Land Amenity Value

- 4.15 LVU captures the net private benefits of the dependent development. In addition to this, the external costs and benefits of development can be captured in order to derive net social value. Land amenity values refer to the level of pleasantness of the area. A development can result in a loss or gain in land amenity value as a result of changes in the landscape. The approach to estimating external land amenity has followed TAG Unit 2.2 guidance<sup>50</sup> and DCLG guidance<sup>51</sup>.
- 4.16 At Thoresby Colliery, the development will take place on brownfield land and is anticipated to result in land amenity value gain. However, there is currently limited evidence available on the external amenity impact of development on brownfield land. As a conservative assumption and in line with the DCLG appraisal guide, it is assumed that the change in amenity value on the Thoresby Colliery site is zero.
- 4.17 At Teal Close, development will take place on agricultural land predominantly used to grow crops. This land is considered to have limited amenity value in terms of recreation or pleasantness of the area, and its agricultural uses are restricted to crops due history of site use for sewage sludge.<sup>52</sup> This type of land aligns with the definition for intensive agricultural land, with estimated land amenity value of £29,000 per hectare in perpetuity<sup>53</sup>. The delivery of net additional 8.9ha of residential development at Teal Close is therefore estimated to amount to an **amenity loss of £258,000** in present value (in 2010 prices).

<sup>50</sup> Department for Transport (May 2018), TAG Unit A2.2 – Appraisal of Induced Investment Impacts

<sup>51</sup> DCLG (2016) The DCLG Appraisal Guide

<sup>52</sup> Gedling Borough Council (2014) Application Number 2013/0545- Land off Teal Close Netherfield

<sup>53</sup> DfT (2020) TAG Workbook Valuing Dependent Development



## External Benefits from Affordable Housing

- 4.18 Another type of external benefits which are additional to private benefits captured by LVU are those arising through the provision of affordable housing.
- 4.19 Social housing delivers additional health benefits which measure the annual net savings on health costs due to the provision of affordable housing, which helps to alleviate overcrowding and rough sleeping. The methodology to calculate this benefit follows the MHCLG guidance, which suggests a £125 benefit per unit per annum (or £2,400 in present value terms over 30 years). It is assumed that this benefit has 0% displacement given the high demand for affordable housing.
- 4.20 It is estimated that the Scheme delivers a net additional £20,880 in external benefits associated with affordable housing (expressed as present value over a 30-year period).

## 5. Wider Non-monetised Impacts

- 5.1 The transport benefits and LVU capture the economic value of the impacts of the Scheme in terms of improved accessibility and housing development. However, they do not fully cover all long-term impacts of the Scheme on key assets and areas along the route. The following categories of impacts have not been monetised but are important to the case for investment, as they contribute to some of Nottinghamshire's and the region's priority objectives: supporting employment and growth, supporting key economic sectors; and social and deprivation impacts. The qualitative assessment of the non-monetised impacts has been informed by stakeholder consultations with businesses and tourism assets along the A614/A6097 route.

### Supporting employment and economic growth

- 5.2 The dependent development sites unlocked by the scheme will support a range of productive jobs in the area. The DCLG Appraisal Guide<sup>54</sup> states that the default assumption is that any jobs created by a development resulting from government expenditure do not increase aggregate employment as these employment effects are already largely determined by macroeconomic decisions on the level of overall public expenditure. As a result, it recommends that DCLG appraisals do not put a monetary value on these employment impacts. The Guide recognises, however, that employment effects can often have an important local impact and contribute to the strategic arguments for investment.
- 5.3 The two sites supported by the Scheme are of strategic importance for the area and will support a large number of employment opportunities. It is estimated that once fully operational, Thoresby Colliery site will support 1,048 gross direct jobs, making a significant economic contribution to the local economy in Newark & Sherwood as well as Nottinghamshire more widely. As outlined in the previous section, it is estimated that only a quarter of employment space at the site could come forward without the improvements being implemented, therefore the Scheme plays an important role in ensuring the employment impacts on the site materialise in full.
- 5.4 The Scheme will also benefit the site at Teal Close, which is estimated to support a further 684 gross direct jobs locally. The employment land at Teal Close is not identified as dependent on the improvements, however, given the constraints to the residential aspect of the development, the implementation of improvements will be beneficial in ensuring the site is built out in full and employment impacts materialise.
- 5.5 Illustrative GVA impacts associated with the jobs have been provided to demonstrate their value and significance for the local economy.

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<sup>54</sup> DCLG (2016) The DCLG Appraisal Guide

**Table 5-1 Gross direct employment impacts at Thoresby Colliery & Teal Close**

Site	Floorspace	Area (m2)	Employment Density (m2 per job)	Number of gross jobs	GVA per Job	Total indicative GVA benefits
Thoresby Colliery	B1a	4,855	13	373	£45,655	£17.1m
	B1c	13,760	47	293	£43,477	£12.7m
	B2	13,760	36	382	£43,477	£16.6m
Teal Close	B1	4,500	13	346	£57,208	£19.8m
	B2/B8	13,500	40	338	£54,479	£18.4m
<b>Total</b>		<b>50,375</b>		<b>1,732</b>		<b>£84.6m</b>

Source: AECOM calculations (2020); HCA (2015) Employment Density Guide 3rd Addition; Annual Business Survey (2020) National GVA per Employee by Sector; ONS (2020) Regional and Sub-regional Productivity February (2018 Data)

5.6 Furthermore, the gross direct jobs would support further indirect and induced jobs. The HCA Additionality Guide<sup>55</sup> provides economic multiplier ready reckoner values and states that the majority of interventions are expected to have a multiplier of 1.1 at the neighbourhood level and 1.5 at the regional level. Based on the above, a total of 1,153 direct, indirect and induced jobs could be supported locally by the development at Thoresby Colliery and 752 total jobs at Teal Close. At the regional level, the two sites could support 2,598 direct, indirect and induced jobs.

5.7 In addition to employment benefits, the development unlocked by the Scheme will support further fiscal impacts in the form of local council tax revenue:

- Based on the council tax receipts record from Newark & Sherwood Council and the typology of housing at Thoresby Colliery, the site will contribute an additional c. £1.5m per annum of Council tax revenues (of which £1.2m would be associated with the dependent housing on the site).<sup>56</sup>
- Similarly for Teal Close, the development could contribute additional c. £1.5m per annum in Council tax revenue for Gedling Council (of which £1.1m would be associated with the dependent housing on the site).

5.8 By increasing the amount of commercial and industrial space in the area, the Scheme will support further fiscal impacts in the form of business rates at the two development sites:

- The rateable value in the area around the Thoresby Colliery for offices is on average £45 per sqm, and £24 per sqm for industrial space<sup>57</sup>. Applying the business rates multiplier, the proposed scheme will lead to c. £600,000 increase in business rates revenues per annum in total, of which c. £450,000 is estimated to be associated with the dependent development on the site (VOA, 2020).

<sup>55</sup> HCA (2015) Additionality Guide 4th Addition

<sup>56</sup> The figure has been calculated by analysing current council tax bands in the area and applying the Newark & Sherwood council tax band payments corresponding to the typologies provided by the proposed scheme. An equivalent approach is also taken to calculating the benefits at Teal Close for Gedling.

<sup>57</sup> The average rateable values have been calculated on the basis of current information and rateable values (price per m2/unit) on existing properties (office, industrial & workshop) in Edwinstowe & Ollerton area (postcode NG22 9 and NG21 9). Values are set by the Valuation Office Agency (VOA).

- The development at Teal Close is estimated to support a further £420,000 in business rates revenue per annum (although it should be noted that the employment space at Teal Close is not considered to be dependent on the Scheme) (VOA, 2020)<sup>58</sup>.

## Improving business efficiency and supporting investment

- 5.9 Congestion and delays on the network result in increased costs for businesses along the A614/A6097 corridor. Congestion increases costs particularly for businesses in road-reliant sectors by causing longer delivery times, increased staff costs, and penalties associated with delayed and missed deliveries. The ability for companies to plan their operations is reliant on an efficient and reliable road network.
- 5.10 As stated above, the transport modelling results capture the Scheme's impacts on improved journey times for road users. This will lead to increased economic efficiencies and improved competitiveness for businesses through cost savings, as well as increased certainty and ability to plan as the network becomes more reliable.
- 5.11 The A614/A6097 corridor is home to a number of businesses which rely on the road network for their day-to-day operations. This includes businesses in the logistics sector (Clipper Logistics), major agricultural businesses (Strawson), highways construction and engineering (Via East Midlands). These businesses have been consulted as part of this study to add to the understanding of constraints and potential wider impacts of the Scheme on their operations.
- 5.12 The Scheme will relieve business constraints currently experienced along the route and at pinch points at the identified junctions. In addition to addressing safety and congestion concerns, engagement with businesses identified the potential for the Scheme to influence investment decisions. The reduced travel times and improved reliability along the network will allow businesses to improve processes resulting in greater efficiency through increased delivery speeds, later delivery cut-off times and increased output, for example, as reported by Clipper Logistics. These conditions allow businesses to interact more efficiently with each other and their supply chain. The knock-on effect will ultimately lead to increased productivity, a key priority for the regional economy.
- 5.13 Improved performance on the transport network can increase the attractiveness of the route as a place for business, allowing businesses to expand as well as drawing new investment to locate in the area. Business engagement has identified that a number of companies along the route are currently constrained in their ability to expand their operations due to the issues experienced at the junctions. This includes Via East Midlands, which has ambitious growth plans to increase turnover by £8m over the next three years. However, the connectivity affecting activity at the Bilsthorpe site are causing the business to consider alternative locations to realise these ambitions. Strawson has reported similar challenges for its future investment and expansion. The delivery of the Scheme would therefore directly support increased investment into the area by relieving constraints on businesses. The overall impact has the potential to encourage inward investment into the area, as business locations along the route become more attractive.

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<sup>58</sup> The average rateable values have been calculated on the basis of current information and rateable values (price per m2/unit) on existing properties (office, industrial & workshop) in Netherfield area (postcode NG4 2). Values are set by the Valuation Office Agency (VOA).

## Tourism sector impacts

- 5.14 As described in Section 1, tourism is one of the key sectors along the A614/A6097 route with nationally-significant assets locations along the corridor including Center Parcs, Sherwood Pines and Rufford Park. These organisations have been consulted as part of the study.
- 5.15 The review of the Economic Profile of the area has highlighted the importance of tourism industry along the A614/A6097 route locally as well as for Nottinghamshire more generally. The tourism activity supports substantial levels of employment along the route. Center Parcs is one of large employers in the area, employing approximately 1,880 staff (including 1,500 at the holiday village and a further 380 staff at the headquarters site in Ollerton). Around 70% of employees at Center Parcs live within a 25-minute drive and rely heavily on the A614 for the daily commute. Currently the congestion experienced along the route is impacting on the business's ability to attract and retain staff, as employees grow frustrated with the commuting conditions. These challenges have been echoed by other employers along the route. By alleviating the pinch points along the corridor, the Scheme has the potential to benefit support key tourism assets in Nottinghamshire by allowing to operate more efficiently through reduced churn of labour, as well as allowing to attract more workers to the area.
- 5.16 The A614 is a primary route for visitor trips to destinations including Rufford Park (attracting 360,000 visitors annually) and the aforementioned Center Parcs (attracting 400,000 annual visitors). Sherwood Pines attracts approximately 360,000 visitors per year but visitors are directed to the main entrance via the B6030 route. At peak times and the changeover days at Center Parcs (taking place Mondays and Fridays), visitors to multiple destinations along the route face delays and queues at junctions which impacts on visitor satisfaction levels. Consultations with tourism assets found that constraints experienced by visitors (such as 45 minutes required to get to a main arterial road) can negatively impact perceptions, having a knock-on effect on return visits. Shorter trips to destinations which rely on days trips (such as Rufford Park) can be impacted further, as the time spent in traffic minimises dwell time on the site, hence reducing visitor spend.
- 5.17 Reducing congestion and delays along the route has the potential to greatly benefit the visitor experience to key tourism destinations along the A614/A6097 corridor. In doing so, the Scheme will encourage return trips as well as generating reputational benefits for the tourism cluster as a whole.
- 5.18 With further tourism investment planned in the area – such as the Forest Corner Masterplan<sup>59</sup> – creating conditions for growth of the industry is important in achieving the economic ambitions of the area, and the Scheme can play an important role in securing these outcomes. By delivering benefits to key tourism employers and destinations in the area, the Scheme directly supports the objectives of Nottinghamshire's Visitor Economy Strategy<sup>60</sup> to grow the visitor economy and grow a sense of place along the A614.

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<sup>59</sup> Leonard Design Architects (2020) Forest Corner Masterplan

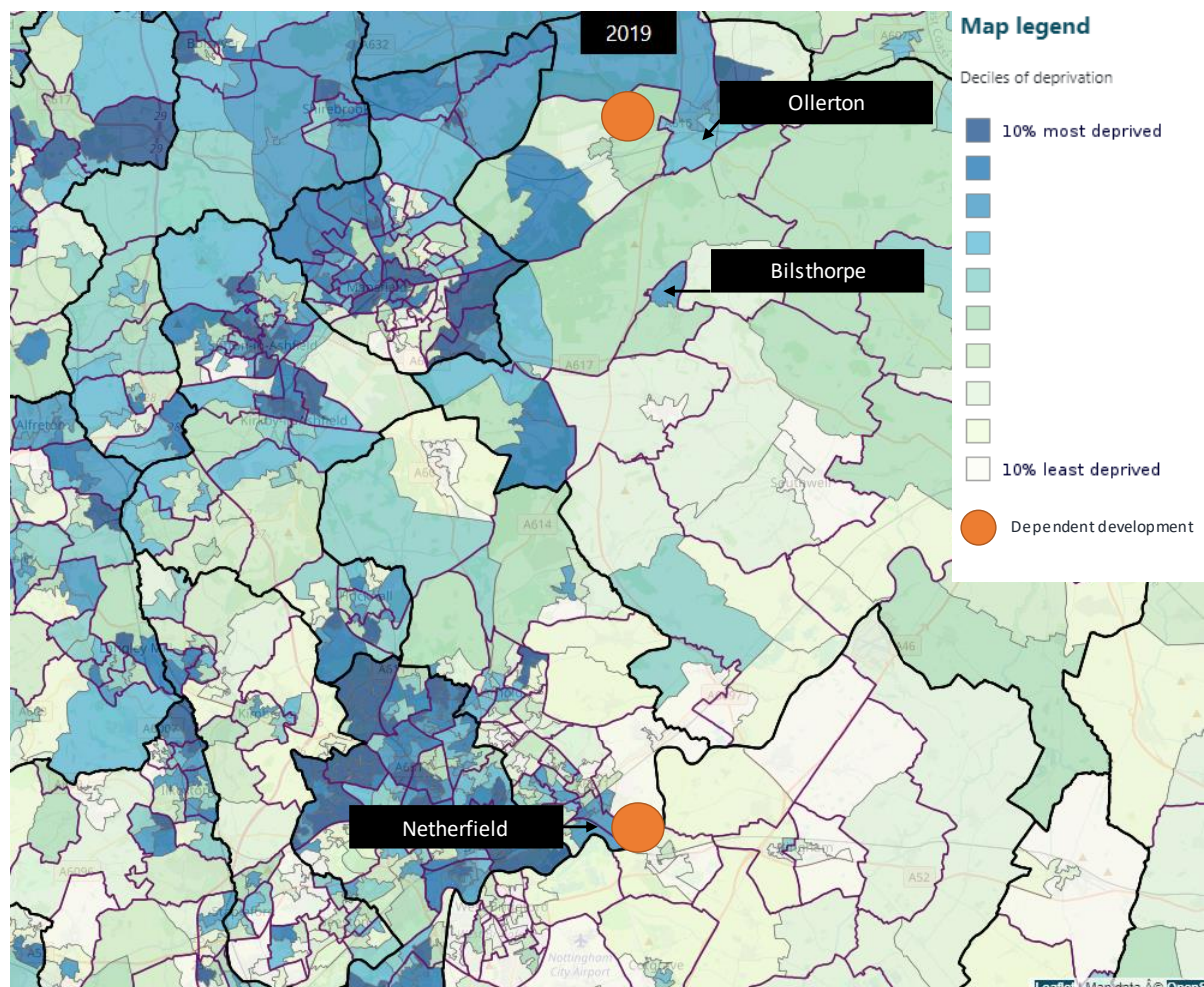
<sup>60</sup> Nottinghamshire County Council (2019) Visitor Economy Strategy 2019 to 2029



## Deprivation and social impacts

- 5.19 The combination of transport and housing benefits enabled by the scheme will support further social impacts for communities along the corridor.
- 5.20 Although areas along the A614/A6097 route largely demonstrate moderate levels of deprivation in comparison to the rest of the country, there are pockets of deprivation along the route concentrated at Bilsthorpe, Netherfield and Ollerton. These areas are among the top 20% and 30% most deprived in the country. The development sites unlocked by the Scheme are located close to these deprivation pockets along the corridor (see Figure 5-1).

**Figure 5-1 Index of Multiple Deprivation (2019)**



Source: MHCLG (2019) English Indices of Multiple Deprivation

- 5.21 The additional high quality housing and social infrastructure enabled by the dependent development along the A614 will support physical regeneration and improved infrastructure provision, as well as access to high quality jobs. These factors are important in delivering regeneration outcomes and demonstrate how an improved road network can lead to improved neighbourhoods and attractiveness of places.
- 5.22 The additional social infrastructure enabled by the dependent development will bring in new investment to support communities residing at the new developments. The range of new infrastructure delivered at Thorsby Colliery and Teal Close sites will include:

- Additional education and health facilities on both sites (including a new primary at Thoresby Colliery) enhancing community provision in the area.
  - Additional retail, restaurant and pub provision will add to the vibrancy of communities and generate social benefits.
  - New open space, allotments and recreation space will be provided, as well as access arrangements to an ecology park at Teal Close, and a new country park with ecological habitats and areas of green infrastructure at Thoresby Colliery.
  - Furthermore, the development at Thorsby Colliery will be home to a world's first Connected Forest<sup>61</sup> test bed and trial programme at the Sherwood Forest Visitor Centre and surrounding area, including Rufford Abbey Country Park, which are managed by the RSPB and Parkwood Outdoors on behalf of the County Council.
- 5.23 The community infrastructure investment will benefit new as well as existing residents of Edwinstone, Ollerton, communities around Netherfield and Stoke Bardolph as well as visitors to the tourism attractions. The additional local services will enhance the vitality of places, adding value to quality of life and contributing to wider physical regeneration outcomes.

## Contributing to housing growth and development

- 5.24 In addition to unlocking development dependent on the Scheme, improvements to the A614/A6097 corridor have the potential to contribute to the wider growth agenda in the local authorities along the corridor.
- 5.25 Section 3 has highlighted the development opportunities and sites planned along the route in Newark & Sherwood, Gedling, Rushcliffe and Bassetlaw. In Newark and Sherwood, this includes settlements along the route such as Ollerton & Boughton, Edwinstowe, Bilsthorpe, Rainworth, Blidworth, Farnsfield and Lowdham, which are expected to accommodate future housing and employment growth<sup>62</sup>. In Rushcliffe, the development at the RAF Newton will benefit from improvements to A6097 / Kirk Hill junction delivered by the Scheme, with the need to provide improvements at the junction stated in the planning conditions for the site<sup>63</sup>. In Bassetlaw, plans for Bassetlaw Garden Village could also benefit from the A614 junction upgrades for southerly journeys with potential sites identified at the northern end of the A614<sup>64</sup>. In addition to the sites which are committed along the route, the Scheme has the potential to improve the investment conditions along the route, hence stimulating further development. By helping to improve transport conditions along the route and provide consistency of service along the corridor, the Scheme will increase the capacity on the network to help development to come forward, resulting in an uplift in the wider housing and employment land provision - one of the key objectives of the Scheme.

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<sup>61</sup> Harworth Group (2020) <https://harworthgroup.com/2020/02/20/sherwood-forest-on-target-to-become-the-worlds-first-5g-connected-forest/>

<sup>62</sup> Newark and Sherwood District Council (2019) Review of the Newark & Sherwood Local Development Framework Core Strategy & Allocations: Amended Core Strategy Adopted March 2019.

<sup>63</sup> Rushcliffe Borough Council (2020) Notice of Planning Permission for Land At Former RAF Newton

<sup>64</sup> Bassetlaw District Council (2019) Possible Garden Village Sites: Preliminary Accessibility Appraisal

# Appendix A – Land Value Uplift Methodology

The calculation of LVU associated with the dependent development is undertaken using HM Treasury Green Book (2020)<sup>65</sup>, DCLG Appraisal Guide (2016)<sup>66</sup> and MHCLG residential and employment land values (August 2020)<sup>67</sup>.

The calculation of LVU includes the following steps:

- Calculate the change in Land Value<sup>68</sup> between the Reference Case and Intervention Case. This is the value difference between the current use of sites (brownfield and agricultural/ greenfield) and the proposed use of sites with the Scheme (residential and employment uses) taking into account land use change and development scale:
  - The land values of the Reference Case and the Intervention Case are calculated by multiplying the land size by residual residential land values and industrial land values for housing and employment land respectively;
  - Current land value of all development sites considered in the Intervention Case is calculated by multiplying existing land use and land size;
  - LVU is calculated by subtracting the Current Land Value from the Land Value in the new use. This is done for both the Reference Case and the Intervention Case;
  - LVU is adjusted for displacement for both scenarios; and
  - LVU is adjusted for deadweight – development coming forward irrespective of the Scheme – which is taken into account by the Reference Case.
- LVU is profiled over the appraisal period based on the expected annual delivery of homes and employment space for both Reference Case and Intervention Case. An annual background land value uplift is applied and converted to 2019 prices.
- The net change in LVU is calculated by subtracting the Reference Case from the Intervention Case.
- LVU presented in 2019-year prices is converted to 2010-year prices to be in line with the Economic Case for the Scheme. This is achieved by applying discounting factors and GDP deflator factors based on the HM Treasury Green Book (2020). DCLG land value estimates provide residential land values which exclude affordable housing in order to “*provide values for appraisal which reflect the full value to society of new housing*”. For the purposes of this LVU assessment it is assumed that all new dependent housing is market housing.

LVU captures the net private benefits of the dependent development. In addition to this, the external benefits of development can be captured in order to derive the net social value of the development. This analysis therefore estimates the external benefits in terms of the

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<sup>65</sup> HM Treasury (2020) Green Book

<sup>66</sup> DCLG (2016) The DCLG Appraisal Guide

<sup>67</sup> MHCLG (August 2020) Land Value Estimates for Policy Appraisal: 2019 Values

<sup>68</sup> The MHCLG land values are presented as residual, taking account of development costs.



benefits arising through the provision of affordable housing which are additional to private benefits captured by LVU.

## Key Assumptions

- **Appraisal period:** a 30-year appraisal period is used; dependent development is assumed to be delivered within the first 30 years based on development phasing profiles;
- **Discounting rate:** in line with HM Treasury Green Book, a 3.5% discount (social time preference) rate is used for years 1-30 (with year zero being 2019/20);
- **Affordable homes:** assumptions are made on the proportion of affordable social rented homes for the purposes of external benefits calculation. It is assumed that 30% affordable homes will be delivered at the Thoresby Colliery site in line with Newark & Sherwood local policy requirement<sup>69</sup>. At Teal Close, the 5% affordable homes are assumed to be provided based on the planning application information<sup>70</sup>.
- **Land values:** residential and industrial land values are calculated based on MHCLG's land value estimates for policy appraisal<sup>71</sup>. These are provided at local authority level for residential and industrial values, and LEP level for commercial and agricultural/greenfield land. Commercial LVU is calculated for B1 and combined B2/B8 uses given that MHCLG provides a unique residual land value for B1 use, and one value for B2 and B8 uses. The residential land values are applied by assuming a development density which is consistent with MHCLG figures.<sup>72</sup>

Land type	Geography	£/ha
Residential land	Newark and Sherwood	1,130,000
Residential land	Gedling	550,000
Industrial/brownfield land	Newark and Sherwood	360,000
Greenfield/agricultural land	Derby, Derbyshire, Nottingham and Nottinghamshire	21,750
Commercial land: Office Out of Town/ Business Park	Derby, Derbyshire, Nottingham and Nottinghamshire (Nottingham)	740,000

Source: MHCLG (August 2020) Land Value Estimates for Policy Appraisal: 2019 Values

- **Rate of annual land value increase:** DCLG guidance (2016) suggests that for any development expected to be delivered in future years, the average annual real term growth rate is 5%. This rate of growth reflects the 20-year average annual growth in residential values in DCLG-published statistics<sup>73</sup>. The guidance states that in absence of further data, the uprate can be applied to all land values including industrial. No additional value uplift in excess of this real term growth rate is

<sup>69</sup> The Newark & Sherwood District Council (July 2013) Affordable Housing Supplementary Planning Document

<sup>70</sup> Gedling Borough Council (2013) Land off Teal Close, Netherfield Planning Application. Application Number 2013/0546. Available here: <https://democracy.gedling.gov.uk/documents/s2881/Application%20No.%2020130545-%20Land%20off%20Teal%20Close%20Netherfield.pdf>

<sup>71</sup> MHCLG (August 2020) Land Value Estimates for Policy Appraisal: 2019 Values

<sup>72</sup> MHCLG benchmark residential land values are based on a hypothetical scheme of 35 two storey, 2/3/4 bed dwellings with a total floor area of 3,150 sq. metres. The number of homes on each site is therefore divided by 35 to give the hectareage of land which is used in the calculation of LVU.

<sup>73</sup> See page 62 of The DCLG Appraisal Guide (2016)

assumed, e.g. additional land value growth as a consequence of the transport infrastructure enhancements.

- **Geographical level of analysis:** a sub-regional level of analysis is deemed appropriate for the LVU calculation. HCA Additionality Guide (2014)<sup>74</sup> suggests that *“the local level for interventions that generate employment effects or other economic benefits is often considered to be within the relevant travel to work area or if this is not appropriate then a 10-15 mile radius of the site concerned if it is a physical development.”* Additionality factors are selected based on a sub-regional level.
- **Additionality factors:** displacement factors have been applied to residential and commercial development impacts in line with the HCA Additionality Guide<sup>75</sup> to derive the net additional impact of the Scheme. Deadweight is accounted for by the Reference Case. Displacement of 38.0% and 38.7% is applied to residential and commercial land values respectively. No leakage, substitution nor multiplier effects are expected to occur.

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<sup>74</sup> HCA (2014) Additionality Guide: Fourth Edition

<sup>75</sup> HCA (2014) Additionality Guide: Fourth Edition

## Appendix B – Consultees

Business/ Organisation	Consultee Name	Role
<b>Strawson Ltd</b>	Mark Strawson	Director
<b>Center Parcs</b>	Raj Singh-Dehal	Chief Corporate Officer
<b>Sherwood Pines (Forestry England)</b>	David Chalmers	Area Land Agent, Central District
<b>Rufford Abbey and Country Park</b>	Justin Palfrey	Regional Director
<b>Clipper Logistics</b>	Iain Armstrong,	General Manager,
	Stacey Slater	Human Resources Manager
<b>Harworth Estates</b>	Stuart Ashton	Head of Planning
<b>Via East Midlands</b>	Dave Tebbett	Head of Operations

