



Derby HMA Sustainability Appraisal of Housing Options

Appendix A: Baseline Information

Derby Housing Market Area Group

Prepared by:

SLR Consulting Limited

The Barn, Cadhay, Ottery St Mary, Devon, EX11 1QT

SLR Project No.: 430.000085.00001

Client Reference No: UK.136118

9 September 2024

Revision: 4

Revision Record

Revision	Date	Prepared By	Checked By	Authorised By
1	14 March 2024	LJ/VP	VP	JM
2	19 June 2024	LJ/VP	VP	JM
3	2 August 2024	LJ	JM	JM
4	9 September 2024	LJ	JM	JM

Basis of Report

This document has been prepared by SLR Consulting Limited (SLR) with reasonable skill, care and diligence, and taking account of the timescales and resources devoted to it by agreement with Derby Housing Market Area Group (the Client) as part or all of the services it has been appointed by the Client to carry out. It is subject to the terms and conditions of that appointment.

SLR shall not be liable for the use of or reliance on any information, advice, recommendations and opinions in this document for any purpose by any person other than the Client. Reliance may be granted to a third party only in the event that SLR and the third party have executed a reliance agreement or collateral warranty.

Information reported herein may be based on the interpretation of public domain data collected by SLR, and/or information supplied by the Client and/or its other advisors and associates. These data have been accepted in good faith as being accurate and valid.

The copyright and intellectual property in all drawings, reports, specifications, bills of quantities, calculations and other information set out in this report remain vested in SLR unless the terms of appointment state otherwise.

This document may contain information of a specialised and/or highly technical nature and the Client is advised to seek clarification on any elements which may be unclear to it.

Information, advice, recommendations and opinions in this document should only be relied upon in the context of the whole document and any documents referenced explicitly herein and should then only be used within the context of the appointment.



Table of Contents

Basis of Report	i
1.0 Introduction	1
2.0 Baseline Information.....	1
2.1 Economy and Employment.....	1
2.1.1 Issues.....	2
2.2 Population and Health	2
2.2.1 Issues.....	5
2.3 Housing.....	5
2.3.1 Issues.....	6
2.4 Transport and Accessibility.....	6
2.4.1 Issues.....	10
2.5 Air, Noise and Light Pollution.....	10
2.5.1 Issues.....	11
2.6 Climatic Factors.....	11
2.6.1 Issues.....	13
2.7 Biodiversity, Geodiversity, Flora and Fauna	14
2.7.1 Issues.....	14
2.8 Cultural Heritage	15
2.8.1 Issues.....	15
2.9 Landscape.....	16
2.9.1 Issues.....	16
2.10 Soils and Water	17
2.10.1 Issues.....	19
2.11 Waste.....	20

Tables in Text

Table A-1: Average Weekly Earnings in the Derby HMA (£).....	2
Table A-2: Economy/Employment Related Sustainability Issues.....	2
Table A-3: Population change across the Derby HMA.....	3
Table A-4: IMD Rankings Per Domain	3
Table A-5: Life Expectancy across the Derby HMA.....	4
Table A-6: Population and Health Related Sustainability Issues	5
Table A-7: Housing Related Sustainability Issues	6
Table A-8: Transport and Accessibility Related Sustainability Issues	10
Table A-9: Air, Noise and Light Related Sustainability Issues	11



Table A-10: Per Capita CO ₂ Emissions across the Derby HMA (tCO ₂ e).....	12
Table A-11: Greenhouse Gas Emissions across the Derby HMA (kt CO ₂ e)	12
Table A-12: Renewable Energy Generation Facilities in the Derby HMA	13
Table A-13: Climate Related Sustainability Issues	13
Table A-14: Biodiversity/Geodiversity Related Sustainability Issues.....	14
Table A-15: Cultural Heritage Related Sustainability Issues.....	15
Table A-16: Landscape Related Sustainability Issues	16
Table A-17: (Net) Additional Completed Dwellings in the Derby HMA.....	17
Table A-18: Water Quality of Water Bodies in the Derby HMA	18
Table A-19: Active, Proposed and Dormant Mineral Sites in the Derby HMA	19
Table A-20: Soil and Water Related Sustainability Issues	19

Figures in Text

Figure A-1: Derby City's Bus Network.....	9
---	---



1.0 Introduction

This appendix provides baseline information on the environmental, social (including health and equality), and economic characteristics of the Derby Housing Area. Data has been collated from published sources available at the time of writing.

Baseline data enables a characterisation of the plan area to be developed, including the sensitivity of the environment. Gaining an understanding of this information allows the impacts of the plan to be assessed and its performance to be monitored after adoption. Baseline information can put the plan area into context in relation to a national or regional situation or in relation to adjacent areas. The detailed baseline information has been compiled in a series of topics in line with published guidance¹ to include comparators, targets, trends and indicators.

¹ A practical guide to the Strategic Environmental Assessment Directive 2005 ODPM ISBN 1851127887



2.0 Baseline Information

2.1 Economy and Employment

Across all three local authorities, economic activity is high. Between October 2022 and September 2023, 78.8% of Amber Valley's², 81.2% of Derby City's³, and 79.8% of South Derbyshire's⁴ working age population (16-64 years) were economically active. These figures are higher than the East Midlands and national averages of 77.8% and 78.8% respectively.

Amber Valley contains four town centres, Belper, Alfreton, Ripley and Heanor. Designated primary shopping areas can be found in the former 3 of the 4 towns. Amber Valley has a large number of employment sites, mainly Industrial Estates. These mostly lie to the east of the Borough associated with centres of population and key transport routes such as the A38 and M1.

Employment in Derby City is mostly contained within the city's central business district and retail centre, as well as to the south and the east of the city. Derby City Council has recently unveiled a new Vision for regeneration across the city, including projects such as SmartParc, a new industrial area with the potential to accommodate up to 2 million sq ft of high-tech food and manufacturing and distribution space⁵. Another new Industrial Site, Merlin Park, has recently been approved in the city which once developed, is expected to create up to 300 jobs and support existing industry-based employment. A new employment site is also being built at the Wyvern.

South Derbyshire contains one town centre, Swadlincote, which holds the primary frontages in the District. South Derbyshire has 7 main new employment sites, including Woodville Regeneration Area, Dove Valley Business Park, Hilton Business Park, former Drakelow Power Station, Cadley Hill, Tetron Point and land at Sinfin Moor. Whilst the former are formally allocated in the Local Plan, the latter is safeguarded for these purposes.

The Derby HMA is covered by the University Hospitals of Derby and Burton, including the Royal Derby Hospital and the Florence Nightingale Community Hospital, both of which are large employers of residents across the Derby HMA.

Derby City has the highest rates of unemployment in the Derby HMA, with 4.1% of residents being unemployed. This is higher than the East Midlands average of 3.5%. Unemployment in Amber Valley and South Derbyshire is 2.9% and 3.3% respectively.

As seen in Table A-1, average weekly earnings in 2023 for people who work full time is highest in South Derbyshire, and lowest in Derby City. Derby City has the largest gender pay gap in the Derby HMA group.

² Labour Market Profile- Amber Valley [Labour Market Profile - Nomis - Official Census and Labour Market Statistics \(nomisweb.co.uk\)](https://www.nomisweb.co.uk)

³ Labour Market Profile- Derby City [Nomis - Official Census and Labour Market Statistics \(nomisweb.co.uk\)](https://www.nomisweb.co.uk)

⁴ Labour Market Profile- South Derbyshire [Nomis - Official Census and Labour Market Statistics \(nomisweb.co.uk\)](https://www.nomisweb.co.uk)

⁵ Derby City Council (2024). SmartParc.



Table A-1: Average Weekly Earnings in the Derby HMA (£)

	Full Time	Male Full Time	Female Full Time
Amber Valley ⁶	662.9	674.9	584.5
Derby City ⁷	641.8	737.0	562.2
South Derbyshire ⁸	706.9	782.5	622.6
East Midlands	640.2	687.8	571.1

South Derbyshire has the highest levels of homeworking in the Derby HMA, with 13.9% of residents claiming to mainly work at home according to the 2021 Census. This is followed by Amber Valley at 12.0% and Derby City at 10.4%. These figures are lower than the national average however of 31.5%⁹.

2.1.1 Issues

Table A-2: Economy/Employment Related Sustainability Issues

Local Authority	Sustainability Issue Identified	Description
Derby City	High unemployment	Employment opportunities within Derby City are considered low compared to the national average.
All	Unequal pay	There is disparity in the average weekly earnings across the Derby HMA, and males consistently earn more than women.
All	Increasing levels of homeworking	Over 1/10 of residents in the Derby HMA work from home. There is a need to support homeworking through adequate internet access.

2.2 Population and Health

Demographics

As shown in Table A-3 below, the population has increased across the Derby HMA between 2011 and 2021 and is expected to continue to increase to 2031 and beyond¹⁰.

⁶ Labour Market Profile- Amber Valley [Labour Market Profile - Nomis - Official Census and Labour Market Statistics \(nomisweb.co.uk\)](https://www.nomisweb.co.uk/lmp/2021/Amber-Valley)

⁷ Labour Market Profile- Derby City [Nomis - Official Census and Labour Market Statistics \(nomisweb.co.uk\)](https://www.nomisweb.co.uk/lmp/2021/Derby-City)

⁸ Labour Market Profile- South Derbyshire [Nomis - Official Census and Labour Market Statistics \(nomisweb.co.uk\)](https://www.nomisweb.co.uk/lmp/2021/South-Derbyshire)

⁹ ONS (2021). Distance travelled to work.

¹⁰ ONS (2018). Population projections for local authorities.



Table A-3: Population change across the Derby HMA

Local Authority	2011	2021	% change (2011-2021)	2031 Projection
Amber Valley ¹¹	122,300	126,200	+3.2%	137,637
Derby City ¹²	248,800	261,400	+5.1%	265,363
South Derbyshire ¹³	94,600	107,200	+13.3%	123,900

The average age of the Derby HMA population is also predicted to get older. By 2030, it is predicted that 25.9% of Amber Valley’s residents, 19.1% of Derby City residents, and 21.5% of South Derbyshire residents will be aged 65 or older, whilst 14.7% of Amber Valley residents, 17.5% of Derby City’s residents, and 16.2% of South Derbyshire’s residents will be 14 or younger, meaning a large proportion of the population are likely to be non-working dependants¹⁴. This increase could lead to changes to the types of accommodation required, and how healthcare and leisure facilities are used within the HMA.

Deprivation

According to the English Indices of Deprivation (2019), Amber Valley is ranked 167th, Derby City is ranked 90th and South Derbyshire is ranked 218th most deprived of the local authorities in England, out of 326 nationally (where 1 is the most deprived and 326th is the least deprived). Of the three Derby HMA authorities, Derby City is therefore the most deprived area and South Derbyshire is the least deprived. Table A-4 shows the average rank of each of the seven domains in the Derby HMA.

Table A-4: IMD Rankings Per Domain¹⁵

	Amber Valley	Derby City	South Derbyshire
Overall rank	167	90	218
Income	160	75	230
Employment	133	78	221
Education	108	69	146
Health	112	60	167
Crime	277	144	267

¹¹ ONS (2021). How the population changed in Amber Valley.

¹² ONS (2021). How the population changed in Derby City.

¹³ ONS (2021). How the population changed in South Derbyshire.

¹⁴ ONS (2018). Population projections for local authorities.

¹⁵ Ministry of Housing, Communities & Local Government (2019) English Indices of Deprivation File 10: Local Authority District Summaries.



	Amber Valley	Derby City	South Derbyshire
Housing	250	175	182
Environment	196	131	154

Health

Table A-5 demonstrates that average life expectancy across Amber Valley and South Derbyshire is similar to or higher than the average for Derbyshire as a whole. Average life expectancy for Derby City is lower than the average for Derbyshire and is the lowest in the Derby HMA.

Table A-5: Life Expectancy across the Derby HMA

	Male Life Expectancy	Female Life Expectancy
Amber Valley	78.8	82.6
Derby City	77.0	81.5
South Derbyshire	79.5	83.3
Derbyshire	78.9	82.3

There is a large amount of open space across the Derby HMA, which can benefit the population with regards to mental and physical health. According to Natural England’s Green Infrastructure Map, accessible green infrastructure (AGI) is variable across the Derby HMA however. AGI refers to open spaces that are inclusive, safe, welcoming, well-managed and accessible for all. The map shows Amber Valley and South Derbyshire as having a lower level of accessible open space, compared to Derby City¹⁶.

Education

With regard to educational attainment, 59.3% of Amber Valley residents¹⁷, 66.4% of Derby City¹⁸, and 66.4% of South Derbyshire¹⁹ residents aged 16-64 have Regulated Qualifications Framework (RQF) Level 3 or higher (Advanced level or equivalent).

7.7% of Amber Valley’s residents and 7.6% of Derby City’s between the ages of 16 and 64 have no qualification, which is slightly higher than the average for East Midlands of 7.0%. There is no data for South Derbyshire on the percentage of residents with no qualifications.

¹⁶ Natural England (2021). Green Infrastructure Map.

¹⁷ Labour Market Profile- Amber Valley [Labour Market Profile - Nomis - Official Census and Labour Market Statistics \(nomisweb.co.uk\)](https://www.nomisweb.co.uk/lmp/2021/Amber-Valley)

¹⁸ Labour Market Profile- Derby City [Nomis - Official Census and Labour Market Statistics \(nomisweb.co.uk\)](https://www.nomisweb.co.uk/lmp/2021/Derby-City)

¹⁹ Labour Market Profile- South Derbyshire [Nomis - Official Census and Labour Market Statistics \(nomisweb.co.uk\)](https://www.nomisweb.co.uk/lmp/2021/South-Derbyshire)



2.2.1 Issues

Table A-6: Population and Health Related Sustainability Issues

Local Authority	Sustainability Issue Identified	Description
All	Population Increase	The population of the Derby HMA will continue to increase significantly.
All	Dependant population	Due to an increasing amount of people aged 65 and over, the Derby HMA is predicted to have an increasingly dependent population with resulting health and social care issues.
All	Deprivation	Social deprivation is an issue across the Derby HMA. Derby City has the highest ranking in the deprivation indices of the three local authorities.

2.3 Housing

Derby City’s most recent assessment of its housing capacity across the plan period is 12,500 dwellings. Given a housing requirement from the standard methodology of 21,522 homes over an agreed 17-year local plan period, this results in a current shortfall of 9,022 homes.

The identified housing requirements of AVBC and SDDC are 6,564 for the period 2022-2040 and 8874 for the period 2022-2039 respectively.

Across the Derby HMA there is an identified need for affordable housing. Local Housing Need Assessments (LHNAs) identify a need to provide for social/affordable rented housing, affordable home ownership and market housing, to meet the range of needs of households across the Derby HMA^{20,21}. Amber Valley’s pre-submission Local Plan (2022-2040), specifically the pretext for the Affordable Housing Policy (H5), references the Borough’s Local Housing Need Assessment which concludes that for social/affordable rented accommodation, around 401 dwellings per annum would be required within Amber Valley to meet identified need. The Plan also identifies an overprovision of 1,152 homes to be built across the plan period to maximise affordable housing delivery and provide for flexibility²².

The Derby and South Derbyshire Local Housing Need Assessment identified a need for 214 affordable rental homes to be built annually in South Derbyshire. At a sub-market level, this can be broken down to 75 homes in the Derby Fringe, 105 homes in Swadlincote and South and 35 homes in the North West²³.

The most recent Derby City Local Housing Need Assessment identified a need for 672 affordable rental homes to be built annually in Derby City, across the plan period.

²⁰ South Derbyshire District Council (2020). Strategic Housing Market Assessment 2019 to 2028.

²¹ Amber Valley Borough Council (2023). Local Housing Needs Assessment Addendum Report.

²² Amber Valley Borough Council (2024). Pre-submission Local Plan (2022-2040).

²³ South Derbyshire District Council (2020). Strategic Housing Market Assessment 2019 to 2028.



For any new housing developments within the Borough, Amber Valley are planning on taking a Housing Value Zone approach to affordable housing provision based on viability, whereby proposals for housing developments of 10 or more dwellings will be expected to provide the following percentage of the gross number of dwellings, in the form of affordable housing:

- Higher Value Zone: 40 %
- Medium Value Zone: 30%
- Lower Value Zone: 20%
- Small brownfield sites between 10 and 19 units in the Lower Value Zone: 10%

South Derbyshire and Derby City require up to 30% of new housing development as affordable housing as defined in the NPPF on sites of over 15 dwellings^{24,25}.

Across the Derby HMA there is a requirement for a mix of housing to be provided, relating to type, size and tenures. Additionally, the predicted increase to the population of over 65 years, is likely to result in an increased need for accessible housing. Within South Derbyshire, the LHNA estimates a need for 805 wheelchair accessible homes over the plan period 2022-2039.

This SA will consider the options for housing delivery scale and distribution but will not consider details such as the mix of housing to be delivered.

2.3.1 Issues

Table A-7: Housing Related Sustainability Issues

Local Authority	Sustainability Issue Identified	Description
All	Housing Need	Housing needs have been identified across the Derby HMA. There is a shortage of affordable housing to meet the overall needs identified.

2.4 Transport and Accessibility

The Strategic Road Network (SRN) in the HMA comprises the A38, A50, and part of the A6, A5111 and A52. Other locally important routes include the A52, A5111, A5250, A514, A516, A5132, A6, A608, A609 and A610. The M1 (lying just outside the Derby HMA) is locally accessible.

A variety of road infrastructure projects are scheduled to be completed across Derbyshire between 2016-2039²⁶:

- New layout of the Stenson Road/A5111 junction associated with the Stenson Fields development;

²⁴ South Derbyshire District Council (2016). South Derbyshire Local Plan.

²⁵ Derby City Council (2017). Derby City Local Plan.

²⁶ Amber Valley Borough Council (2022). Strategic Transport Assessment.



- Radbourne Lane Development Mitigation;
- Schemes associated with the South Derbyshire Core Strategy (south of the A50);
- A50/A514 junction improvements
- Highway Proposals associated with the East Midlands Gateway development adjacent to M1 J24;
- Signalisation of the A38/A50 junction;
- A38 Derby junctions grade separation scheme;
- A52 Wyvern Improvements;
- New A50 junction and associated link road for the South Derby Growth Zone;
- The Kirk Hallam Link Road which is a single lane route that runs to the west of Kirk Hallam between Sowbrook Lane and the A6096, associated with the Kirk Hallam development; and
- Amber Valley transport network enhancements associated with developments with planning permission.

The A38 and A50 are likely to see increases in traffic as a result of:

- Grade separation of the A38 to the west of Derby (which changes traffic routings into and out of Derby and draws traffic onto the SRN);
- Improvements to the M1 J24a/J24 which releases capacity at M1 J24a and improves connections between the A38, A50 and the M1; and
- Development growth.

Traffic Counts undertaken on key local roads throughout Derbyshire by the Department of Transport show that there was a small decrease in the number of vehicles on the road between 2012 and 2019²⁷. Commuting to work by car is still the most popular method of travel across the Derby HMA²⁸ according to the 2021 Census. Travel by car accounted for 29.9% of commuting in South Derbyshire, 27.9% of commuting in Amber Valley and 22.2% of commuting in Derby City. Derby City had the highest percentage of residents walking to work. This suggests that there is higher dependency on cars in Amber Valley and South Derbyshire. It is likely that a cultural shift to homeworking for many residents has contributed to a slight reduction in the number of people commuting to work.

There are 11 train stations within the Derby HMA: Duffield; Belper; Ambergate; Whatstandwell; Langley Mill (Heanor); Alfreton; Willington; Tutbury and Hatton; Derby; Peartree; and Spondon. These stations are connected to each other by two lines; intercity and regional²⁹. The intercity line directly connects the Derby HMA to cities such as Leicester,

²⁷ Department for Transport: Road traffic statistics. <https://roadtraffic.dft.gov.uk/local-authorities/61> Accessed 04/03/2020.

²⁸ ONS (2021). Method used to travel to work.

²⁹ East Midlands Railway (2024). Route Map.



London and Sheffield, as well as a large number of towns in between. This line is accessible via Belper, Alfreton, Langley Mill and Derby station. The regional lines directly connects the Derby HMA to cities such as Crewe and Nottingham, as well as a large number of towns in between. This line is accessible via all train stations within the Derby HMA. Trains across Derbyshire are operated by East Midlands Railway. Cross Country services connect Derby to Birmingham. There are low levels of commuting via train across the Derby HMA however, with all areas having less than 0.5% of residents using this method of travel³⁰. This is likely due to unreliable/lacking services linking suburban/rural stations to Derby City (and vice versa).

Derbyshire County Council aims to improve bus services across Derbyshire, specifically relating to reliability and punctuality, with a target of 97% satisfaction with journey time set for 2029/30³¹. It is estimated that in Derby City, 9.2% of the population are within a 400m walking distance to a bus stop that is served by a high frequency service.

Derby City is also in the process of improving its bus service. The latest Bus Service Improvement Plan Monitoring Report³² highlights that 88 new bus shelters have been installed across Derby City, and that a number of schemes are being prepared or reviewed. This includes a bus station access enforcement scheme, which will be implemented once bus station improvements have taken place. Figure A-1 highlights Derby City's current bus network.

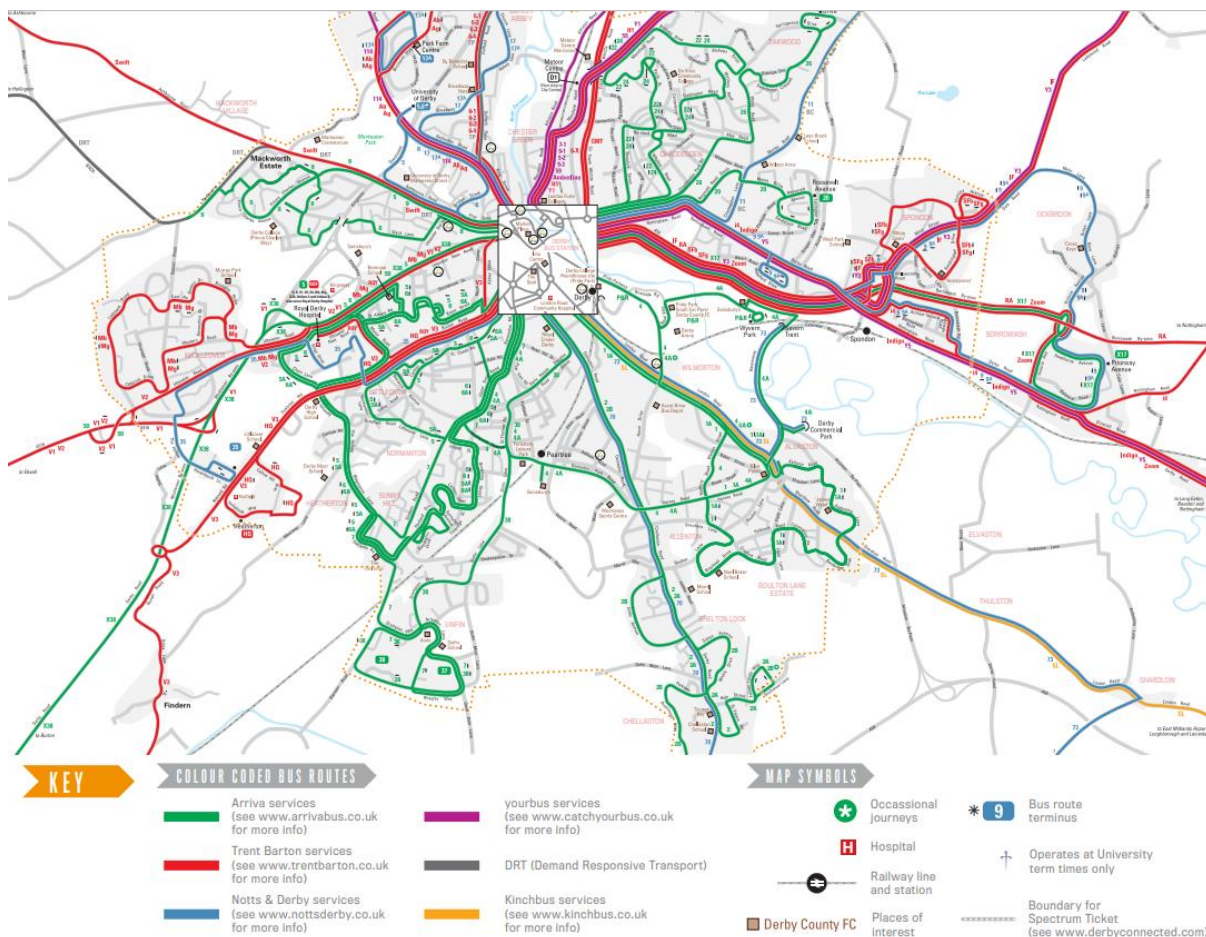
³⁰ ONS (2021). Method used to travel to work.

³¹ Derbyshire County Council (2021). Bus Service Improvement Plan.

³² Derby City Council (2023). Bus Service Improvement Plan Monitoring Report- October 2023.



Figure A-1: Derby City's Bus Network



Cycle networks are being developed in and around Derbyshire, with the aim to make the area the most connected and integrated county for cycling in England³³. Targets of the Derbyshire Cycling Plan (2016-2030) include doubling the number of people cycling regularly by 2030, doubling the percentage of commuters travelling by bicycle as their main transport mode, and double the number of children regularly cycling to school. The plan will achieve this by developing a network of Greenways, which aim to link communities to the countryside. Within Amber Valley, the Ripley Greenway provides cycle access through Ripley on designated cycle paths. The outskirts of Heanor and Shipley are also linked to the Nutbrook Trail, which stretches from Heanor down to Long Eaton as part of the National Cycle Network³⁴. Within Derby City, the Mickleover Greenway is in the process of being improved, and barriers to cyclists being removed³⁵, whilst funding has been secured to improve cycle paths along Sinfyn Lane, Ashbourne Road and Duffield Road, among others³⁶. Within South Derbyshire, the NCR6 Cloud Trail and NCR54 cycle way can be used to travel from South Derbyshire to Derby City.

³³ Derbyshire County Council. The Derbyshire Cycling Plan 2016-2030.

³⁴ Visit Amber Valley (2024). Cycling in Amber Valley.

³⁵ Derby Cycling Group (2024). Great improvements on Mickleover Greenway.

³⁶ Derby City Council. City Wide Cycle Improvements.



Nottinghamshire County Council is currently in the process of developing their Local Cycling and Walking Infrastructure Plan, in partnership with Derby City Council, Derbyshire County Council and Nottingham City Council³⁷. This plan should further improve walking and cycling routes across the Derby HMA.

2.4.1 Issues

Table A-8: Transport and Accessibility Related Sustainability Issues

Local Authority	Sustainability Issue Identified	Description
All	Car dependency	High car dependency exists across the Derby HMA, particularly in Amber Valley and South Derbyshire, which are more rural. This is likely to be contributing to congestion across the road network, especially during peak travel periods. This is also likely to be contributing to issues of air quality. Achieving a modal shift from car to more sustainable and active travel could bring environmental and health benefits.

2.5 Air, Noise and Light Pollution

Air

South Derbyshire contains 24 nitrogen dioxide (NO₂) monitoring locations. This monitoring highlighted that in 2022, levels of NO₂ were below the annual average Air Quality Objective of 40 µg/m³³⁸. There are no monitoring locations in Amber Valley, however the results of air quality modelling for previous Amber Valley Borough Council Air Quality Annual Status Reports found it unlikely that National Air Quality Objectives would be breached in the Borough³⁹. Air quality in Amber Valley and South Derbyshire is therefore relatively good; neither LA's are believed to contain any areas exceeding the national Air Quality Objectives. As a result, no Air Quality Management Areas (AQMA) exist within Amber Valley or South Derbyshire.

Two AQMAs exist with Derby City, however, due to exceedances in the annual mean nitrogen dioxide (NO₂) objective. The NO₂ monitoring data from 2022 show a decreasing trend in NO₂ concentrations across Derby (when compared with 2019 data), suggesting that the AQMAs are having a positive impact on emissions⁴⁰.

Noise

Generally, higher levels of noise pollution are experienced in areas where there is greater urbanisation and key transport links. In the case of the Derby HMA, significant noise pollution (average noise levels over 70.0 dB) is currently an issue surrounding key roads such as the

³⁷ Nottinghamshire County Council (2024). D2N2 Local Cycling and Walking Infrastructure Plan (LCWIP)

³⁸ South Derbyshire District Council (2023). Air Quality Annual Status Report.

³⁹ Amber Valley Borough Council (2023). Air Quality Annual Status Report.

⁴⁰ Derby City Council (2023). Air Quality Annual Status Report.



A38 (which passes through Amber Valley, Derby City and South Derbyshire), the A6 (which passes through Derby City and South Derbyshire) and the A50 in South Derbyshire⁴¹.

Light

Light pollution is caused by excessive or intrusive artificial light arising from poor or insensitive design. Light pollution can have a detrimental effect on the character and amenity of an area after dark. Derby City emits the most light pollution in the Derby HMA, with the majority of the area experiencing over 8 nanoWatts/cm²/sr⁴². Most of Amber Valley and South Derbyshire experiences 2nW or lower of light pollution. However, some of the larger towns and villages within Amber Valley and South Derbyshire experience greater levels of light pollution (over 32 nanoWatts/cm²/sr). These include Langley Mill, Alfreton, and Swadlincote.

2.5.1 Issues

Table A-9: Air, Noise and Light Related Sustainability Issues

Local Authority	Sustainability Issue Identified	Description
Derby City	Air quality	Air quality is an issue within Derby City as NO ₂ levels exceed national averages, although are decreasing.
All	Noise pollution	Existing sources of noise pollution at present include key transport links such as the A38, A6 and A50. Development could contribute to the creation of noise pollution, through construction works or could increase expose to noise pollution the location of new development.
All	Light Pollution	Derby City emits the most light pollution in the Derby HMA. Most of Amber Valley and South Derbyshire experiences low light pollution. Development could contribute to increasing levels of light pollution unless it is controlled.

2.6 Climatic Factors

Flooding

Land across the Derby HMA is at risk from both fluvial (river) and pluvial (surface water) flooding. The greatest risk of fluvial flooding in Amber Valley comes from the River Derwent, River Amber, and the River Erewash and their tributaries. The greatest risk of fluvial flooding in Derby City comes from the River Derwent and its tributaries and in South Derbyshire the greatest risk of fluvial flooding is from the River Trent and its tributaries. Flood risk is especially prominent in urban areas such as Duffield, Belper, and Weston-on-Trent, where a number of properties and developments exist within flood zones. The risk of flooding across the Derby HMA is likely to increase as a result of climate change.

A major new investment in flood defences known as 'Our City Our River' is being implemented along the River Derwent, through Derby City. The project aims to realign flood defences

⁴¹ England Noise and Air Quality Viewer <http://extrium.co.uk/noiseviewer.html>

⁴² England's Light Pollution and Dark Skies [England's Light Pollution and Dark Skies \(cpre.org.uk\)](http://England's Light Pollution and Dark Skies (cpre.org.uk))



across the city centre, in order to minimise any increases in flood risk to upstream and downstream areas. The work carried out so far has already prevented potentially significant flooding⁴³.

Greenhouse gas emissions

Table A-10 identifies that per capita CO₂ emissions in the Derby HMA were highest for South Derbyshire, and lowest for Derby City. These figures are similar to that of the England average and much lower than the per capita emissions estimated for Derbyshire as a whole. Across the Derby HMA, there has been a general downward trend in CO₂ emissions since 2005, with emissions falling by an average of 4.2 tonnes per person⁴⁴ over the 16-year period.

Table A-10: Per Capita CO₂ Emissions across the Derby HMA (tCO₂e)⁴⁵

	2005	2021
Amber Valley	10.1	6.0
Derby City	8.5	4.6
South Derbyshire	11.6	7.0
Derbyshire Average	14.5	10.5
England Average	10.0	5.5

Table A-11 highlights that greenhouse gas emissions in Derby City are much higher than those of Amber Valley or South Derbyshire. For each of the local authority areas, commercial and agriculture sources are the lowest contributors to emissions, and transport is the highest contributor to emissions. This is likely to be a result of high car dependency across the Derby HMA.

Table A-11: Greenhouse Gas Emissions across the Derby HMA (kt CO₂e)⁴⁶

	Commercial	Industry Total	Domestic Total	Transport	Agriculture
Amber Valley	21.3	187.2	202.2	223.3	94.9
Derby City	59.2	250.2	344.7	371.8	7.7
South Derbyshire	10.5	135.7	156.8	307.0	124.9

In 2022, the Derby HMA held a combined renewable energy generation capacity of 93.0 MW⁴⁷. Most of this capacity is within Derby City and South Derbyshire, which hold 46.6 MW and 33.9

⁴³ Derby City Council (2023). Our City Our River.

⁴⁴ UK Government (2023). UK local authority and regional carbon dioxide emissions national statistics: 2005-2021.

⁴⁵ UK Government (2023). UK local authority and regional carbon dioxide emissions national statistics: 2005-2021.

⁴⁶ UK Government (2023). UK local authority and regional carbon dioxide emissions national statistics: 2005-2021.

⁴⁷ UK Government (2023). Regional Renewable Statistics.



MW of capacity respectively. Table A-12 highlights the number of onshore wind, hydro and photovoltaic sites in place across the Derby HMA.

Table A-12: Renewable Energy Generation Facilities in the Derby HMA

	Onshore Wind	Hydro	Photovoltaics
Amber Valley	9	5	2,331
Derby City	3	1	5,040
South Derbyshire	13	0	2,158

There has been a significant increase in registrations of electric plug-in vehicles across Derbyshire in the last decade (2013-2023). By September 2019, there were 11,757 plug-in vehicles registered in Derbyshire⁴⁸. This is significantly higher than in 2013, when 44 plug-in vehicles were registered in Derbyshire. Derby City has the highest number of registered plug-in vehicles within the Derby HMA (4,374), followed by Amber Valley (1,618) and South Derbyshire (1,515). It is worth noting that a vehicle may not be used in the location it is registered.

There are approximately 16 council-owned⁴⁹ public EV chargers in Amber Valley, 32 council-owned public EV chargers in Derby City⁵⁰, and 42 council-owned public EV chargers in South Derbyshire⁵¹.

The provision of infrastructure for increased numbers of electric vehicles will need to be planned for. The Second Midlands EV Infrastructure Consortium (lead by Nottinghamshire County Council, in partnership with Derby City Council, Derbyshire Council, Nottingham City Council and Staffordshire County Council) have recently been awarded £39.3 million to fund the provision of more EV charging points across the East Midlands⁵².

2.6.1 Issues

Table A-13: Climate Related Sustainability Issues

Local Authority	Sustainability Issue Identified	Description
Amber Valley and South Derbyshire	Flood risk	Certain urban areas within the Derby HMA are particularly susceptible to fluvial and surface water flood events, including Belper, Heanor, Duffield and Weston-on-Trent.
All	Contributions to climate change	There is a reliance on petrol/diesel fuelled vehicles across the Derby HMA. Transport is contributing the largest proportion of CO ₂ emissions.

⁴⁸ Department for Transport: Plug-in cars and light goods vehicles licensed (Table VEH0131), 2019

⁴⁹ Amber Valley Borough Council (2024). Electric vehicle charging points.

⁵⁰ Derby City Council (2024). Electric vehicle (EV) charging.

⁵¹ South Derbyshire District Council (2020). Electric Vehicles and Charging.

⁵² Midlands Connect (2023). Thirteen Midlands Councils collaborate to apply for £39.3m to get more chargers onto our streets.



2.7 Biodiversity, Geodiversity, Flora and Fauna

There is one European designation site present within the Derby HMA, the River Mease SAC which lies to the South of the South Derbyshire District. There are no Special Protection Areas (SPAs) present however.

Local Nature Reserves are found across the Derby HMA, with Amber Valley containing 8 (approximately 50.5 ha in total), Derby City containing 10 (approximately 185.8 ha in total) and South Derbyshire containing 3 (approximately 41.4 ha in total).

Amber Valley contains 174 Local Wildlife Sites, along with 129 potential local wildlife sites. South Derbyshire contains 118 Local Wildlife Sites and 146 potential local wildlife sites.

Amber Valley contains 18 Regionally Important Geological sites (combined area 50.4ha).

There are seven areas designated as Sites of Special Scientific Interest (SSSIs) located within Amber Valley, which have a combined area of 359.5 ha. There are also seven SSSIs located within South Derbyshire and one SSSI in Derby City (Boulton Moor).

The Natural Capital Strategy for Derbyshire describes the current condition of Derbyshire’s environment and all the ways in which it benefits people and the local economy. The total annual net value of ecosystem benefits and services produced within Derbyshire is £2.6 billion. Key benefit values include carbon sequestration by habitats (£1.6 billion), mineral production (£298 million), the supply of clean water (£132 million per year) recreation (£181 million per year) and contributing £86 million per year to physical health and wellbeing. The carbon sequestration benefits provided by habitats outweigh the GHG emissions produced by habitats (-£95 million) and livestock (-£249 million). The environment also provides huge benefits by absorbing water and reducing flooding (natural flood management) which is difficult to value but likely to be a significant benefit.

The resilience of Natural Capital requires improvement due to biodiversity loss, climate change, and increasing population pressure. Climate change is likely to impact Natural Capital in relation to changes in rainfall, urban heating and the need to manage agricultural land differently.

Many SSSIs within Derbyshire are not in good condition. This is partially attributable to the level of habitat fragmentation particularly across wetlands, heathlands and grasslands. Land in the south of Derbyshire, and in the areas surrounding Derby, is generally not currently as wildlife rich as northern parts of the County. The Natural Capital Strategy identifies that there could be a focus on nature recovery and improving habitat connectivity in these areas.

2.7.1 Issues

Table A-14: Biodiversity/Geodiversity Related Sustainability Issues

Local Authority	Sustainability Issue Identified	Description
All	Pressure on species and habitats	Need to ensure that habitats and species are not negatively impacted by development.
All	Poor condition of habitats	Need to improve the condition of habitats and support nature recovery.



Local Authority	Sustainability Issue Identified	Description
All	Threats from climate change	Climate change is an important emerging risk to all ecosystem services due to its impact on the underlying key factors of habitat, soil and land management.
All	Fragmented habitats	Need to improve habitat connectivity and resilience.

2.8 Cultural Heritage

There are 778 Listed Buildings or structures within Amber Valley, of which 16 are grade I listed, 49 are grade II* and 713 are grade II⁵³. In total there are 21 Scheduled Ancient Monuments, 3 Registered Parks and Gardens and 29 Conservation Areas.

There are 389 Listed Buildings or structures within Derby City, of which 7 are grade I listed, 39 are grade II*, and 346 are grade II⁵⁴. In addition, there are 187 Locally Listed buildings and 53 Locally Listed items of street furniture in the city. In total there are 7 Scheduled Ancient Monuments, 16 Conservation Areas and no Registered Parks and Gardens .

There are 714 Listed Buildings or structures within South Derbyshire, of which 48 are grade I listed, 48 are grade II*, and 615 are grade II⁵⁵. In total there are 22 Scheduled Ancient Monuments, 22 Conservation Areas and 5 Registered Parks and Gardens .

The Derwent Valley Mills World Heritage Site (DVMWHS) covers part of the Derwent Valley from Matlock Bath in the north to Derby City centre in the south. It covers 1,228.7 ha, although a further buffer zone is designated which itself extends to 4,362.7ha. The presence of the DVMWHS can be seen as fundamental to the character of Amber Valley Borough and Derby City, as it represents a key historical and technological site and is also critical for tourism in areas such as Darley Abbey, Ambergate, Belper, Milford and Duffield.

2.8.1 Issues

Table A-15: Cultural Heritage Related Sustainability Issues

Local Authority	Sustainability Issue Identified	Description
All	Threats to the historic environment	There are heritage assets and conservation areas at risk within the Borough, particularly within the DVMWHS and its associated buffer zone. There is pressure from development on the settings and significance of heritage assets and on wider historic landscapes and townscapes.

⁵³ Historic England, 2019. <https://historicengland.org.uk/listing/>

⁵⁴ Statutory List City of Derby [Statutory-List-for-the-City-of-Derby---revised-19-06-2017.pdf](https://www.derby.gov.uk/media/1000000/Statutory-List-for-the-City-of-Derby---revised-19-06-2017.pdf)

⁵⁵ Historic England, 2019. <https://historicengland.org.uk/listing/>



2.9 Landscape

Seven National Character Areas (NCAs) exist across the Derby HMA:

- Derbyshire Peak Fringe and Lower Derwent;
- Nottinghamshire, Derbyshire and Yorkshire Coalfield;
- Needwood and South Derbyshire Claylands;
- Trent Valley Washlands;
- Melbourne Parklands;
- Leicestershire and South Derbyshire Coalfield; and
- Mease/Sense Lowlands.

There are designated Areas of Multiple Environmental Sensitivity (AMES) across the Derby HMA, mainly within Amber Valley and South Derbyshire. These are areas where two or more of the input indicators (historic, ecological or visual unity) are determined as significant in terms of sensitivity to development⁵⁶. Areas of primary AMES are found near Bretby, Mackworth and Belper.

There is a large amount of Green Belt land across the Derby HMA. 33% of Amber Valley is protected by Green Belt, with the majority of this falling to the south of the Borough, along the border with Derby City. Derby City includes small pockets of Green Belt land, to the north, east and south of the city. South Derbyshire includes a large amount of Green Belt land to the north of the district, along the border with Derby City.

Derby City also includes 13 Green Wedges, which are in place to maintain the identities of residential neighbourhoods, as well as to allow the countryside to penetrate into the urban area⁵⁷.

2.9.1 Issues

Table A-16: Landscape Related Sustainability Issues

Local Authority	Sustainability Issue Identified	Description
All	Areas of sensitive landscape	There are areas of multiple environmental sensitivity mainly within South Derbyshire and Amber Valley.
Derby City	Green Wedge	Areas designated as Green Wedge exist within the Derby City administrative area and these contain planning restraints.
South Derbyshire and Amber Valley	Green Belt	Areas designated as Green Belt exist within the Derby City administrative area and these contain planning restraints.

⁵⁶ Derbyshire County Council (2013). Areas of Multiple Environmental Sensitivity.

⁵⁷ Derby City Council (2012). Core Strategy Green Wedge Review.

*The AVBC Landscape Sensitivity Study (2016) does not contain data for the whole of the Borough. Site outside of the scope of the study were assessed as “uncertain effect” as part of the Local Plan SA.



2.10 Soils and Water

Soils

There is no Grade 1 (excellent quality) agricultural land in the Derby HMA. South Derbyshire contains the most Grade 2 land, though Amber Valley contains pockets of Grade 2 (very good) agricultural land located around Mackworth and Duffield. Agricultural land in South Derbyshire and Amber Valley is mostly classified as Grade 3 (good to moderate) and Grade 4 (poor). Derby City is almost entirely urban land, with the remaining land falling under Grade 3 and Grade 4.

Table A-17 highlights the net additional completed dwellings across the Derby HMA during 2022-2023, as well as the type of land these were developed on (greenfield/brownfield).

Table A-17: (Net) Additional Completed Dwellings in the Derby HMA

Local Authority	(Net) Additional Completed Dwellings	Greenfield (%)	Brownfield (%)
Amber Valley Borough	446	62	38
Derby City ⁵⁸	649	35	65
South Derbyshire District ⁵⁹	1118	73	27

Table A-17 suggests that there is a potential lack of previously developed land available for redevelopment within South Derbyshire. However, it is noted that the brownfield land register may not give a true impression of brownfield land for development, as it only includes sites allocated or with planning permission for housing- sites allocated for employment, but that could potentially be used for housing, are omitted. This could result in the loss of greenfield land and soils through development.

Water

Water supply in the Derby HMA is provided by Severn Trent Water. The Severn Trent Water Resource Area saw an increase in water use per capita per day between 2013 and 2018 from 129 litres per person to 133 litres per person⁶⁰. This was still lower than the England average of 141 litres per person per day⁶¹.

The 2024 Severn Trent Water Resource Management Plan (WRMP) indicates that there is a potential for demand to exceed supply for water. By 2040/41, a likely future supply / demand deficit of 244M litres/day is predicted, growing to 540M litres/day by 2050-2051, if no action is taken⁶². In order to bring supply into balance, Severn Trent aim to increase the focus on reducing leakage and reducing demand for water, while providing an increase in sustainable deployable output and a more flexible supply system.

⁵⁸ Derby City Council (2023). Authority Monitoring Report.

⁵⁹ South Derbyshire District Council (2023). Authority Monitoring Report.

⁶⁰ DEFRA (2018) Water Conservation Report- Action taken and planned by government to encourage the conservation of water.

⁶¹ DEFRA (2018) Water Conservation Report- Action taken and planned by government to encourage the conservation of water.

⁶² Severn Trent (2023). Draft Water Resources Management Plan 2024.



As shown in Table A-18, the majority of water bodies within the Derby HMA are in moderate condition, suggesting improvements could be made to water quality.

Table A-18: Water Quality of Water Bodies in the Derby HMA

Water Body	2019 Ecological Classification	2022 Ecological Classification
Derwent from Amber to Bottle Brook	Moderate	Moderate
Ecclesborne Catchment	Moderate	Moderate
Derwent from Bottle Brook to Trent Water Body	Moderate	Moderate
Markeaton Brook from Mackworth Brook to Derwent Water Body	Moderate	Moderate
Mackworth Brook Catchment (trib of Markeaton Brook) Water Body	Moderate	Poor
Chaddesden Brook Catchment (trib of Derwent) Water Body	Moderate	Moderate
Markeaton Brook from Source to Mackworth Brook Water Body	Moderate	Moderate
Kedleston Hall Lower Lake Water Body	Moderate	Moderate
Derwent from Wye to Amber Water Body	Moderate	Moderate
Leas Brook Catchment (trib of Derwent) Water Body	Good	Good

Minerals

Mineral extraction takes place across Derbyshire, and includes:

- Limestone (accounts for over 80% of all minerals produced by weight in the county)⁶³;
- Sand and gravel (accounts for around 9%);
- Coal (accounts for around 5%); and
- Small amounts of vein minerals (mainly fluorspar and barytes), gas, sandstone, silica sand and clay, and shale (unknown quantities, but likely to each be less than 1% of the total county production by weight)⁶⁴.

⁶³ Derbyshire and Derby Local Minerals Plan (2017)

⁶⁴ Derbyshire and Derby Local Minerals Plan (2017)



Derbyshire’s production of limestone is highly significant in national terms, providing about 20% of England’s overall production⁶⁵.

Table A-19 presents the active, proposed and dormant mineral sites in the Derby HMA⁶⁶.

Table A-19: Active, Proposed and Dormant Mineral Sites in the Derby HMA

Site	Active/Proposed/Dormant
Swarkestone Quarry	Active- sand and gravel
Shardlow Quarry	Active- sand and gravel
Willington Quarry	Active- sand and gravel
Elvaston Quarry	Active- sand and gravel
Mercaston Quarry	Active- sand and gravel
Longcliffe Quarry	Active- industrial limestone
Foston	Proposed- sand and gravel
Sudbury	Proposed- sand and gravel
Crich	Active- hard rock
Whatstandwell	Active- hard rock
Mugginton	Dormant- sand and gravel
Crich Cliff	Dormant- hard rock

2.10.1 Issues

Table A-20: Soil and Water Related Sustainability Issues

Local Authority	Sustainability Issue Identified	Description
South Derbyshire	Derelict Land	There is a lack of previously developed land available for development within the South Derbyshire District.
All	Loss of greenfield land	Development on greenfield land across the Derby HMA may result in losses of soils. Additionally, there are nationally important mineral resources within Derbyshire- particularly limestone- that contribute to England’s overall production. Proposed sites may lead to the loss of greenfield land. This may be more of a significant issue within South Derbyshire and Amber Valley than Derby which is already highly urbanised and contains little available greenfield land for development.
All	Water quality	The ecological status of water bodies across the Derby HMA could be improved to achieve ‘good’ status. Water quality may be affected by development.

⁶⁵ Derbyshire and Derby Local Minerals Plan (2017)

⁶⁶ Derbyshire County Council (2022). Local Aggregate Assessment.



2.11 Waste

The current Derby and Derbyshire Waste Local Plan was published in March 2005⁶⁷. A new Waste Local Plan for Derbyshire is currently being prepared by Derby City Council and Derbyshire County Council. It will guide waste related development in the county until 2035. The plan will be subject to its own SA.

It is unclear whether there are any waste safeguarded sites within the Derby HMA. It has not been possible to source a suitable GIS layer for this SA. As this is a strategic study, data on waste processing and recycling rates within the HMA is not relevant.

⁶⁷ [Derby and Derbyshire Waste Local Plan](#)



