

Sustainability Appraisal Scoping Report

**Hertfordshire Minerals and Waste
Local Plan 2040**

Hertfordshire County Council



February 2022

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1. Introduction

- 1.1 Sustainability Appraisal (SA) is a mandatory process for plan making. The requirement to undertake a SA is set out under Section 19 of the Planning and Compulsory Purchase Act 2004.
- 1.2 SA is integral to the preparation and development of a Local Plan to identify how sustainable development is being addressed.
- 1.3 In addition to the SA, Development Plan Documents (Local Plans) must also be subject to a Strategic Environmental Assessment (SEA). The SEA Directive (European Directive 2001/42/EC) was transposed into law in England by the Environmental Assessment of Plans and Programmes Regulations 2004.
- 1.4 The requirements to carry out SA and SEA are distinct, although it is possible to satisfy both using a single integrated SA process. SEA considers only the environmental effects of a plan. SA considers the plan's wider economic and social effects in addition to its potential environmental impacts, therefore SA incorporates the environmental considerations required by the SEA.
- 1.5 The SA prepared to support the emerging Minerals and Waste Local Plan (MWLP) will incorporate the requirements of SEA. Where reference is made to the SA, it includes the requirements of SEA.

Purpose of the Scoping Report

- 1.6 The SA process comprises a number of stages, with the Scoping Report being Stage A.
- 1.7 Stage A identifies the scope and level of detail of the information to be included in the SA Report. It sets out the context, objectives and approach of the assessment; and identifies relevant environmental, economic and social issues and objectives. A key aim of the scoping procedure is to help ensure the sustainability appraisal process is proportionate and relevant to the plan being assessed.¹ The key steps involved in Stage A include:

A1: Identifying other relevant policies, plans and programmes, and sustainability objectives.

A2: Collecting baseline information.

A3: Identifying sustainability issues and problems.

A4: Developing the SA framework.

A5: Consulting on the scope of the SA.

¹ NPPG Paragraph: 014 Reference ID: 11-014-20140306

1.8 There are several stages following Stage A, which are dealt with in the main SA of the Plan, and these include:

Stage B: Developing and refining options and assessing effects.

Stage C: Preparing the Sustainability Appraisal Report.

Stage D: Consulting on the Hertfordshire MWLP and the SA report.

Stage E: Monitoring the significant effects of implementing the Hertfordshire MWLP²

1.9 This Scoping Report includes some of the required elements of the final 'Environmental Report' (the output required by the SEA Regulations). Table 1 below signposts the relevant sections of the Scoping Report that are considered to meet the SEA Regulations requirements (the remainder will be met during subsequent stages of the SA). This table will be included in the full SA Report at each stage of the SA to show how the SEA Regulations requirements have been met through the SA process.

Table 1: SEA Requirements Checklist

SEA Requirement	Section of Report
An outline of the contents, main objectives of the plan or programme and relationship with other relevant plans and programmes	Chapter 2
The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme	Chapter 3 and Appendix 1
The environmental characteristics of areas likely to be significantly affected	Chapter 3 and Appendix 1
Any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC and 92/43/EEC	Chapter 3 and Appendix 1
The environmental protection objectives, established at International, Community or Member State level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation	Requirement will be met at a later stage in the SA process.
The likely significant effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material	Requirement will be met at a later stage in the SA process

² The significant environmental effects of implementing a plan which has been subject to SA should be monitored, as required by Regulation 17 of the SEA Regulations. Details of monitoring arrangements may be included in the SA Report, the post-adoption statement or in the Local Plan itself. The monitoring results are reported through the Authority's Monitoring Report (National Planning Practice Guidance, Paragraph: 025 Reference ID: 11-025-20140306)

assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors	
The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme	Requirement will be met at a later stage in the SA process
An outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information	Requirement will be met at a later stage in the SA process
A description of the measures envisaged concerning monitoring in accordance with Article 10	Requirement will be met at a later stage in the SA process
A non-technical summary of the information provided under the above headings	Requirement will be met at a later stage in the SA process

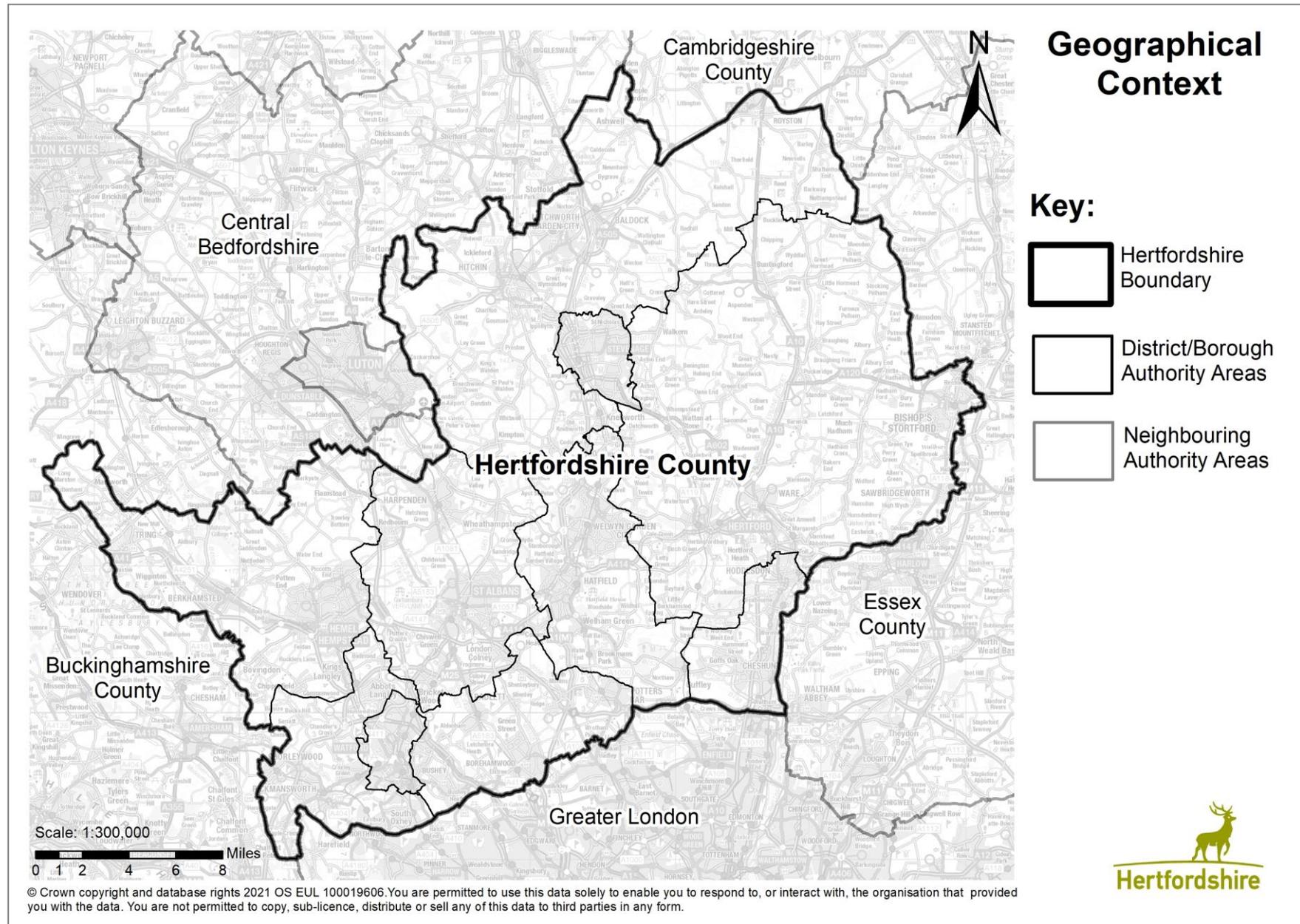
Hertfordshire Geographical Context

- 1.10 Hertfordshire is a landlocked county situated in the east of England which shares boundaries with Bedfordshire to the north, Cambridgeshire to the north-east, Essex to the east, Buckinghamshire to the west and Greater London to the south. The County includes ten Local Authorities (LAs): Broxbourne; Stevenage; Welwyn Hatfield; Hertsmere; Dacorum; North Hertfordshire; St. Albans City; Three Rivers; Watford and East Hertfordshire.
- 1.11 The largest town in Hertfordshire is Watford which has some of the characteristics of outer London. Cheshunt, Waltham Cross and Hoddesdon are old towns which now form an almost continuous belt of urbanisation extending out of London along the Lee Valley. St Albans, Hitchin, Hertford and Ware are historic market towns while Letchworth and Welwyn Garden City were the world's first garden cities. Stevenage, Hemel Hempstead and Hatfield are New Towns created since 1945.
- 1.12 The county covers an area of 164,300 hectares. Hertfordshire is defined by a varied landscape mosaic of chalk hills and plateaus sloping down from the chalk escarpment, in the northern part of the county. The landscape is cut by chalk river valleys, which form part of the Thames catchment. The tributaries of the Thames valley define its western edge with Buckinghamshire and the more open landscapes of Essex and Cambridgeshire comprise most of its eastern boundary. The valley of the River Lea creates a strongly defined south eastern boundary. The Chiltern Hills to the west and north-west of the county are designated as an Area of Outstanding Natural Beauty. The proximity of London and the pressures for development during the 20th century have resulted in the growth of suburban development in the southern part of Hertfordshire. This in turn led to the designation of a large proportion of the county as Green Belt comprising 84,640 hectares or 51.5%.
- 1.13 Hertfordshire is well connected nationally and internationally with four motorways (M1, A1(M), M11, and M25), three neighbouring international airports (London

Stansted, London Luton and Heathrow) and four major rail lines (West Coast Main Line, the Midland Main Line, the East Coast Main Line, and the West Anglia Line).

1.14 Figure 1 below displays the geographical context of Hertfordshire. Further baseline information for Hertfordshire is provided in Chapter 3 and Appendix 1 of this Scoping Report.

Figure 1: Geographical Context of Hertfordshire



Background to the Emerging Minerals and Waste Local Plan

- 1.15 Hertfordshire County Council has a statutory role under the Town and Country Planning Act 1990 (as amended) to prepare and review local planning policies for the future management of minerals and waste developments in the county. The current adopted Minerals and Waste Local Plan documents are comprised of the following:
- The Waste Core Strategy and Development Management Policies Development Plan Document 2011-2026 (adopted November 2012)
 - The Waste Site Allocations Development Plan Document 2011-2026 (adopted July 2014)
 - The Minerals Local Plan 2002-2016 (adopted March 2007)
- 1.16 To support the adopted Local Plan documents the county council also adopted the following Supplementary Planning Documents:
- The Minerals Consultation Areas Supplementary Planning Document (adopted November 2007)
 - The Employment Land Areas of Search Supplementary Planning Document (adopted November 2015)
- 1.17 Prior to commencing work on the emerging MWLP, the Minerals and Waste Planning Authority had been carrying out separate reviews for the current adopted Minerals and Waste Local Plan documents.
- 1.18 The review of the adopted Minerals Local Plan started in 2014 and the review of the adopted Waste Local Plan started in 2017. By 2021, the Waste Local Plan review had reached Draft Plan stage. A consultation on the Draft Waste Local Plan was carried out from January – March 2021, in line with Regulation 18 of The Town and Country Planning (Local Planning) (England) Regulations 2012 (hereafter referred to as the 2012 Regulations).
- 1.19 The Minerals Local Plan reached a later stage of plan production. A consultation on the Proposed Submission Minerals Local Plan was carried out from January to March 2019, in line with Regulation 19 of the 2012 Regulations.
- 1.20 In 2021, the Minerals and Waste Planning Authority made the decision to discontinue reviewing the plans separately. A report was presented to members of The Environment Cabinet Panel on 09 November 2021, setting out the authority's intention to merge the plans to create a single joint plan. An updated Minerals and Waste Development Scheme (MWDS) was also presented to members on 09 November 2021, which set out the proposed timeline for the preparation of the emerging MWLP.
- 1.21 The proposal to prepare a single joint plan and the proposed timeline for the preparation of the single joint plan received final approved from members at a full

Council meeting on 14 December 2021. The plans which were under preparation prior to the approval of a single joint plan (as described in Paragraphs 1.18 and 1.19), and their associated evidence base, were subsequently withdrawn and removed from the county council's webpages, as required by Regulation 27 of the 2012 Regulations.

1.22 Table 2 below sets out the production timetable for the emerging MWLP and shows the application of the SA process:

Table 2: Timetable for the Emerging MWLP and the SA Process

Date	Stage of Plan Preparation	SA Process
January 2022-May 2022	Draft MWLP and evidence base being prepared	Stage A: Scoping Report. Published for Consultation in February 2022 Stage B: Developing and refining options and assessing effects. Stage C: Preparing the Sustainability Appraisal Report.
June - July 2022	Publication of Draft MWLP for consultation (in line with Regulation 18 of the 2012 Regulations)	Stage D: First iteration of SA Report published for consultation alongside the Draft MWLP
March-April 2023	Publication of Proposed Submission MWLP for consultation (in line with Regulation 19 of the 2012 Regulations)	Stage D: Final SA Report published for consultation alongside the Proposed Submission MWLP
February 2024	Adoption of MWLP	Stage E: Monitoring the significant effects of implementing the Hertfordshire MWLP. Stage E takes place following adoption of the plan.

Structure of the Scoping Report

1.23 This chapter has described the background to the production of the emerging MWLP and the requirement to undertake SA. The remainder of this report is structured into the following sections:

- Chapter 2: Relevant Plans and Programmes
- Chapter 3: Baseline Information
- Chapter 4: SA Framework
- Chapter 5: Conclusion and Next Steps

2. Relevant Plans and Programmes

- 2.1 The emerging MWLP is not being prepared in isolation and is greatly influenced by other plans and programmes and by broader sustainability objectives. The emerging MWLP needs to be consistent with international and national guidance and strategic planning policies and should contribute to the goals of a wide range of other plans and programmes. It must also conform to environmental protection legislation and the sustainability objectives established at the international, national and local levels.
- 2.2 Schedule 2 of the SEA Regulations requires:
- (1) “an outline of the...relationship with other relevant plans or programmes”*
- (5) “the environmental protection objectives established at international, Community or National level, which are relevant to the plan and the way those objectives and any environmental considerations have been taken into account during its preparation”*
- 2.3 In order to establish a clear scope for the SA and meet the requirements of Schedule 2 of the SEA Regulations, it is necessary to review and develop an understanding of the environmental, social and economic objectives contained within international, national and local plans and programmes that are of relevance to the emerging MWLP.
- 2.4 The relevant plans and programmes that influence the preparation of the emerging MWLP are identified below in Table 3. The applicable objectives of the plans and programmes listed in Table 3 have been reviewed and it is considered that the key objectives are adequately covered by the SA Framework.
- 2.5 It is important to note that the review of the plans and programmes is not and cannot be exhaustive. The list of plans and programmes will be updated where appropriate as the SA Report progresses. The objective is not to identify every possible document, but to focus on the plans and programmes which are likely to have direct or significant implications for the emerging MWLP.

EU Legislation

- 2.6 The UK left the European Union (EU) on 31st December 2020. EU legislation as it applied to the UK on 31 December 2020 is now a part of UK domestic legislation and is known as ‘retained EU legislation’. It is retained under the control of the UK’s Parliaments and Assemblies.

- 2.7 Some types of EU legislation such as Regulations and Decisions, are directly applicable as law in an EU Member State, under section 2(1) of the European Communities Act 1972 (c.68), without any further action required.
- 2.8 Other types of EU legislation, such as Directives, are indirectly applicable, which means they require a Member State of the EU to make domestic implementing legislation before becoming law in that State. In the UK this was often achieved by making Statutory Instruments rather than passing primary legislation.
- 2.9 The majority of EU waste management law has already been transposed into domestic law in the UK by way of statutory instrument. For example, The Waste Framework Directive 2008 (2008/98/EC) was transposed into UK Legislation through the Waste (England and Wales) Regulations 2011. The majority of the requirements for the minerals planning are set out within the National Planning Policy Framework (NPPF) and associated National Planning Practice Guidance (NPPG) chapters. The NPPF and NPPG are not affected by the UK leaving the EU.

Table 3: Relevant Plans and Programmes

International Policy Context
IPCC's Sixth Assessment Report on Climate Change (IPCC, 2022)
Johannesburg Declaration on Sustainable Development (2002)
Aarhus Convention (1998)
Bern Convention (1979)
Ramsar Convention – Convention on Wetlands of International Importance (1971)
UNESCO World Heritage Convention (1972)
Paris Agreement (2015)
Convention on Biological Diversity (1992)
Legislation originating from the EU: European Directives
SEA Directive 2001
The Waste Framework Directive 2008
The Landfill Directive 1999
EU Management of Waste from Extractive Industries (2006/21/EC)
The Industrial Emissions Directive 2010
The Packaging and Packaging Waste Directive 1994
The Birds Directive 2009
The Habitats Directive 1992
The Water Framework Directive 2000
The Floods Directive 2007
The Drinking Water Directive 1998
The Bathing Water Quality Directive 2006
The Air Quality Directive 2008
The Noise Directive 2000/14/EC
European Plans and Strategies
European Landscape Convention (Florence, 2002)
European Convention on the Protection of the Archaeological Heritage (Valletta, 1992)

The Convention for the Protection of the Architectural Heritage of Europe (Granada, 1985)
National Policies and Strategies and Guidance
MHCLG ³ (2021) National Planning Policy Framework
DLUHC & MHCLG (2019) Planning Practice Guidance on air quality
DLUHC & MHCLG (2019) Planning Practice Guidance on climate change
DLUHC & MHCLG (2019) Planning Practice Guidance on the historic environment
DLUHC & MHCLG (2019) Planning Practice Guidance on town centres and retail
DLUHC & MHCLG (2021) Planning Practice Guidance on flood risk and coastal change
DLUHC & MHCLG (2019) Planning Practice Guidance on healthy and safe communities
DLUHC & MHCLG (2021) Planning Practice Guidance on plan-making
DLUHC & MHCLG (2019) Planning Practice Guidance on the natural environment
DLUHC & MHCLG (2019) Planning Practice Guidance on noise
DLUHC & MHCLG (2019) Planning Practice Guidance on light pollution
DLUHC & MHCLG (2019) Planning Practice Guidance on open space, sports and recreation facilities, public rights of way and local green space
DLUHC & MHCLG (2019) Planning Practice Guidance on rural housing
DLUHC & MHCLG (2015) Planning Practice Guidance on renewable and low carbon energy
DLUHC & MHCLG (2014) Planning Practice Guidance on Minerals
DLUHC & MHCLG (2015) Planning Practice Guidance on Waste
DLUHC & MHCLG (2019) Planning Practice Guidance on water supply, wastewater and water quality
DLUHC & MHCLG (2019) Planning Practice Guidance on Design: process and tools
DCLG (2014) National Planning Policy for Waste
DEFRA ⁴ (2021) National Waste Management Plan for England
DEFRA (2012) National Policy Statement for Waste Water
DEFRA (2013) National Policy Statement for Hazardous Waste
HM Government (October 2021) Net Zero Strategy: Build Back Greener
MHCLG (2021) National Model Design Code
HM Government (2013) Waste prevention programme for England: Prevention is better than cure – The role of waste prevention in moving to a more resource efficient economy
HM Government (2009) The UK Low Carbon Transition Plan
HM Government (2011) The Carbon Plan: Delivering our low carbon future
HM Government (2017) The Clean Growth Strategy
HM Government (2018) A Green Future: Our 25 Year Plan to Improve the Environment
DEFRA (2018) Resources and Waste Strategy
DECC (2009) The UK Renewable Energy Strategy
DEFRA (2013) The National Adaptation Programme – Making the Country Resilient to a Changing Climate

³ Ministry of Housing, Communities and Local Government (formerly Department for Communities and Local Government)

⁴ Department for Environment, Food & Rural Affairs

DEFRA (2013) Underground, Under threat – Groundwater Protection: Policy and Practice (GP3)
Underground, Under threat – Groundwater Protection: Policy and Practice 2007
Environment Agency (2011) The National Flood and Coastal Erosion Risk Management Strategy for England
DEFRA (2008) Future Water: The Government's Water Strategy for England
Environment Agency (2009) Water for People and the Environment: Water Resources Strategy for England and Wales
DEFRA (2009) Safeguarding our Soils: A Strategy for England
DEFRA (2007) The Air Quality Strategy for England, Scotland, Wales and Northern Ireland
DEFRA (2011) Biodiversity 2020: A strategy for England's wildlife and ecosystem services
DEFRA (2011) Securing the Future: Delivering UK Sustainable Development Strategy
DEFRA (2017) UK plan for tackling roadside nitrogen dioxide concentrations
DEFRA (2019) Clean Air Strategy
DEFRA and DfT (2017) UK plan for tackling roadside nitrogen dioxide concentrations
DECC (2014) Community Energy Strategy
DoH (2010) Healthy Lives, Healthy People: our Strategy for Public health in England
Minerals Extraction and the Historic Environment 2012
Mineral Extraction and Archaeology: A Practice Guide 2008
Aggregate Mineral Survey for England and Wales 2019
England's statutory landscape designations: a practical guide to your duty of regard 2010
English Heritage (2008): Mineral Extraction and Archaeology: A Practice Guide
UK Minerals Strategy (2018)
Natural England (2010): England's statutory landscape designations: a practical guide to your duty of regard
DEFRA Underground (2007): A Strategy for England's Trees, Woods and Forests
JNCC (2011) The Geological Conservation Review in the Context of the Wider Earth Heritage Conservation Effort
White and Green Papers
'Planning for the Future' White Paper (2020)
Natural Environment White Paper 2011
The Natural Choice: securing the value of nature 2011
National Legislation
The Planning and Compulsory Purchase Act 2004
The Town and Country Planning Act 1990
The Environment Act 2021
Localism Act 2011
Flood and Water Management Act 2010
Climate Change Act 2008
The Countryside and Rights of Way Act 2000
The Natural Environment and Rural Communities Act 2006 – Section 41: list of habitats and species of principal importance in England 2008
Planning (Listed Buildings and Conservation Areas) Act 1990
Ancient Monuments and Archaeological Areas Act 1979
Regulations

The Conservation of Habitats and Species Regulations (2010) (as amended)
Waste (England & Wales) Regulations (2011)
Environmental Permitting (England and Wales) Regulations (2010)
The Hazardous Waste (England and Wales) Regulations (2005)
The Town and Country Planning (Local Planning) (England) Regulations 2012
Environmental Assessment of Plans and Programmes Regulations 2004
The Waste (Circular Economy) (Amendment) Regulations 2020
Local and Regional
Hertfordshire County Council Waste Core Strategy and Development Management Policies Document 2011-2026 (2012)
Hertfordshire County Council Waste Site Allocations document 2011-2026 (2014)
Hertfordshire County Council Employment Land Areas of Search Supplementary Planning Document (2015)
Hertfordshire County Council Minerals Local Plan Review 2002-2016 (2007)
Hertfordshire County Council Minerals Consultation Areas Supplementary Planning Document (2007)
Hertfordshire County Council Local Authority Collected Waste Spatial Strategy (May 2021).
Hertfordshire Climate Change and Sustainability Partnership 2021 Strategic Action Plans: Strategic Action Plan – Biodiversity October 2021 Strategic Action Plan – Transport October 2021 Strategic Action Plan – Carbon Reduction September 2021 Strategic Action Plan – Water Reduction August 2021
Hertfordshire Infrastructure Funding Prospectus 2018-2031 (prepared by AECOM)
Hertfordshire Key Employment Sites Strategy 2020 (prepared by Markides Associates for Hertfordshire Local Enterprise Partnership and Hertfordshire County Council)
Loss of Employment Space in Hertfordshire February 2019 (Hertfordshire Local Enterprise Partnership)
Perfectly Placed for Business: The refreshed Strategic Economic Plan for Hertfordshire 2017-2030 (Hertfordshire Local Enterprise Partnership, 2017)
Hertfordshire County Council Sustainable Hertfordshire Strategy 2020
Hertfordshire County Council Local Transport Plan 4 2018-2031
Hertfordshire County Council A414 Corridor Strategy 2019
Hertfordshire County Council Air Quality Strategic Plan for Hertfordshire 2015-2020
Hertfordshire County Council Air Quality Strategy 2019
Hertfordshire Renewable and Low Carbon Energy Study and Objectives 2010 (AECOM, 2010)
Hertfordshire County Council Health and Wellbeing Planning Guidance May 2017
Hertfordshire County Council Rights of Way Improvement Plan July 2017 (2017/18 – 2027/28)
GreenArc Strategic Green Infrastructure Plan (with Hertfordshire) (LUC, 2011)
Chilterns AONB Management Plan 2019-2024: Caring for the Chilterns forever and for everyone (Chilterns Conservation Board, 2019)
A 50-year vision for the wildlife and natural habitats of Hertfordshire: A Local Biodiversity Action Plan (Herts and Middlesex Wildlife Trust, 1998, revised 2006)

Planning for biodiversity and the natural environment in Hertfordshire – guiding principles (Hertfordshire Local Nature Partnership, 2014)
Hertfordshire Local Flood Risk Management Strategy (LUC, 2018)
Thames River Basin District River Basin Management Plan (Environment Agency and DEFRA, 2015)
Anglian River Basin District River Basin Management Plan (Environment Agency and DEFRA, 2015)
Thames Catchment Flood Management Plan (Environment Agency, 2009)
Great Ouse Catchment Flood Management Plan (Environment Agency, 2009)
Lower Lee Flood Risk Management Strategy (Environment Agency, 2013)
Essex and Southend-on-Sea Waste Local Plan (Southend on Sea Borough Council and Essex County Council, 2017)
Essex County Council Minerals Local Plan 2014 Essex County Council Minerals Local Plan 2014 (Draft Proposed Amendments) Regulation 18 Consultation
Essex Transport Strategy: The Local Transport Plan for Essex June 2011
Bedford Borough, Central Bedfordshire and Luton Borough Councils: Minerals and Waste Local Plan: Strategic Sites and Policies (Bedford Borough, Central Bedfordshire and Luton Borough Councils, 2014)
Central Bedfordshire Local Transport Plan 3 2011-2026
Luton Local Transport Plan 3 2011-2026
Buckinghamshire Minerals and Waste Local Plan 2016-2036 (Buckinghamshire County Council, 2019)
Buckinghamshire's Local Transport Plan 4 2016-2036
Cambridgeshire and Peterborough Minerals and Waste Plan July 2021 (Cambridgeshire County Council and Peterborough City Council)
Cambridgeshire Local Transport Plan 2011-2031
The London Plan March 2021
North London Waste Plan 2017-2032
West London Waste Plan 2014
The Broxbourne Local Plan 2018-2033 (Broxbourne Borough Council, 2020)
Dacorum Borough Council Core Strategy 2006-2031 (Dacorum Borough Council, 20123) Site Allocations Development Plan Document 2006-2031 (Dacorum Borough Council, 2017)
Dacorum Borough Council Emerging Strategy for Growth (2020-2038) Regulation 18
The East Herts District Plan (East Herts Council, 2018)
Hertsmere Local Plan (2012-2027): Core Strategy (2013), Elstree Way Corridor Area Action Plan (2015) and Site Allocations and Development Management Policies Plan (2016)
Hertsmere Borough Council Draft Local Plan September 2021 (Regulation 18)
North Hertfordshire Local Plan 2011 – 2031: Submission Version October 2016 (North Hertfordshire District Council, 2016)
St Albans City and District Council Local Plan Review 1994 – Saved and Deleted Policies Version (July 2020)
Stevenage Borough Local Plan 2011- 2031 (Stevenage Borough Council, 2019)
Three Rivers District Council Local Plan: Core Strategy 2011 & Development

Management Policies Local Development Document 2013 Three Rivers District Council Preferred Policy Options and Sites for Potential Allocation documents 2021 (Regulation 18)
Watford Borough Council Local Plan 2006-2031: Part 1 - Core Strategy (2013) and Part 2 - Site Allocations and Development Management Policies Draft Watford Borough Council Local Plan 2020-2036 (2021) (Regulation 18)
Welwyn Hatfield Borough Council Local Plan 2005 Welwyn Hatfield Borough Council Draft Local Plan Submission Document (Welwyn Hatfield Borough Council, 2017)
Broxbourne Borough Council Level 1 and 2 Strategic Flood Risk Assessment (Broxbourne Borough Council, 2016/2017)
South West Hertfordshire Strategic Flood Risk Assessment Stage 1 (JBA Consulting, 2019)
Level 1 and 2 Strategic Flood Risk Assessment (East Hertfordshire District Council, 2016)
Hertsmere Borough Council Strategic Flood Risk Assessment Stage 1 (AECOM, 2018)
North Hertfordshire District Council Strategic Flood Risk Assessment Update (North Hertfordshire District Council, 2016)
Stevenage Borough Council Level 1 Strategic Flood Risk Assessment Update (AECOM, 2016)
Welwyn Hatfield Borough Council Level 1 and 2 Strategic Flood Risk Assessment Final (JBA consulting, 2016)

3. Baseline Information

3.1 Baseline information provides the basis for predicting and monitoring the likely sustainability effects of the emerging MWLP and helps to identify key sustainability issues and means of dealing with them.

3.2 Baseline information is included within this Scoping Report to meet the requirements of Schedule 2 of the SEA Regulations. Schedule 2 requires information to be provided on:

(2) The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan.

(3) The environmental characteristics of areas likely to be significantly affected.

(4) Any existing environmental problems which are relevant to the plan including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC on the conservation of wild birds and the Habitats Directive

3.3 A summary of the baseline information, the key issues arising from the information and the likely evolution of the key issues without the MWLP, can be seen in Tables 4 to 7 below. Further details can be found in Appendix 1.

Table 4: Minerals and Waste Baseline Information Summary

Topic	Summary of Baseline Information	Summary of Key Sustainability Issues	Summary of the likely evolution of the issues without the implementation of the plan
Minerals	<p>Currently sand and gravel extraction takes place at three quarries in Hertfordshire.</p> <p>The Annual Provision Rate for Hertfordshire stands at 1.31 million tonnes per annum. This figure will be used to plan for future sand and gravel supply within the emerging MWLP.</p> <p>There is no clay extraction taking place in Hertfordshire and chalk extraction takes place at a very small scale.</p> <p>There is a demand for crushed rock in Hertfordshire. The county receives its supply of crushed rock through imports primarily via the Hertfordshire rail aggregate depots.</p> <p>Paragraph 213 of the NPPF states that Minerals planning authorities should plan for a steady and adequate supply of aggregates by maintaining landbanks of at least 7 years for sand and gravel.</p> <p>When using the Annual Provision Rate of 1.31 million tonnes per annum, Hertfordshire has a landbank of 5.9 years (as of the end of 2020).</p>	<p>Permitted reserves of sand and gravel are running low and the landbank has dropped to 5.9 years (as of end 2020).</p> <p>Hertfordshire is therefore not currently (as of end 2020) meeting the requirements of the NPPF in maintaining a minimum landbank of 7 years.</p>	<p>In the absence of additional site allocations until the MWLP is adopted, the permitted reserves of sand and gravel and the landbank could drop even further, which could result in a shortage of sand and gravel supply in the county.</p> <p>However, there are two Preferred Areas (PA1 and PA2) in the current adopted MLP (2007) which have not been worked and still have the potential to supply the county with additional sand and gravel if they were to receive planning permission for extraction.</p> <p>The adopted MLP also provides a mechanism, through Policy 4, for applications for extraction to come forward outside of preferred areas if the landbank is below the required level.</p> <p>The new MWLP will provide the opportunity for new sites to be identified for future sand and gravel extraction and will ensure that there is enough supply planned for to meet the county's future needs.</p>
Waste	<p>The data for Hertfordshire shows that over 2.7 million tonnes of waste arose within the county in</p>	<p>There is a reliance on waste facilities</p>	<p>In the absence of the MWLP, it is likely that there would be a greater reliance on exporting waste to facilities outside the county for treating residual</p>

Topic	Summary of Baseline Information	Summary of Key Sustainability Issues	Summary of the likely evolution of the issues without the implementation of the plan
	<p>2019 which consisted of:</p> <p>1,797,677 tonnes of C,D&E waste (Construction, Demolition and Excavation waste)</p> <p>407,980 tonnes of C&I waste (Commercial and Industrial waste)</p> <p>504,449 tonnes of LAC waste (Local Authority Collected Waste)</p> <p>50,602 tonnes of Hazardous waste</p> <p>Of the above arisings, a large percentage was sent to landfill or deposited in/on land.</p> <p>Residual waste requiring disposal is set to reduce over time as recycling practices improve and the county council works towards achieving new targets for recycling and composting.</p> <p>Hertfordshire is estimated to require a total waste management capacity of 3.14 million tonnes per annum in order to meet net self-sufficiency by the end of the plan period. This is anticipated to require an additional 1.98 million tonnes per annum of waste capacity to be brought forward by the end of the plan period.</p> <p>It is projected that there will be significant capacity</p>	<p>outside the county to treat residual LAC waste.</p> <p>There is a significant capacity gap for the management of the two largest waste streams: Non-Hazardous and C,D&E waste.</p>	<p>waste and disposing of inert waste.</p> <p>Furthermore, without the Plan, it is also possible that waste developments will be sited in inappropriate locations resulting in negative social, economic and environmental effects.</p> <p>However, policies in the adopted Waste Local Plan documents contribute towards the management of this issue.</p> <p>The new MWLP offers an opportunity to update these policies in response to the current circumstances of the county, notably new development and growth requirements.</p> <p>Furthermore, the adopted Local Plans of the county's Local Planning Authorities also contain more localised policy at the District and Borough level that will help to manage this issue.</p> <p>In 2020 the County Council approved the procurement of contracts to deal with residual Local Authority Collected Waste outside of the county, which will account for a large proportion of the non-hazardous waste stream.</p>

Topic	Summary of Baseline Information	Summary of Key Sustainability Issues	Summary of the likely evolution of the issues without the implementation of the plan
	<p>gaps for the management of the two largest waste streams: Non-Hazardous residual waste and C, D & E waste.</p> <p>The significant shortfall in capacity projected for Non-Hazardous residual waste is due to the lack of facilities for final disposal of waste. This gap should decrease over the plan period as recycling rates increase but will only do so if sufficient facilities to recycle and compost the non-residual portion of the waste are developed.</p>		

Table 5: Environmental Baseline Information Summary

Topic	Summary of Baseline Information	Summary of Key Sustainability Issues	Summary of the likely evolution of the issues without the implementation of the plan
Air Quality	<p>There are key strategic transport arteries running north to south across Hertfordshire (e.g. A1M, A10, M1) and the M25 running east to west in the south of the county. Due to Hertfordshire's proximity to London and the key strategic transport arteries, the county experiences congestion hotspots.</p> <p>There are currently 34 designated AQMAs (Air Quality Management Areas) across Hertfordshire. With the exception of Stevenage Borough and Welwyn Hatfield District, all local authorities have Air Quality Management Areas</p>	<p>Poor air quality is experienced in a number of areas in Hertfordshire due to high concentrations of nitrogen oxide and particulate matter, and 34 AQMAs have been declared across the county.</p>	<p>In the absence of the new MWLP, which will support sustainable transport measures and aim to reduce emissions from transport of waste, air quality in Hertfordshire is more likely to be adversely affected. New and retrofitted minerals and waste sites are likely to have less stringent mitigation.</p> <p>However, the policies in the current adopted Minerals and Waste Local Plan documents contribute towards the management of this issue.</p> <p>The new MWLP offers an opportunity to update these policies in response to the current circumstances of the county, notably new development and growth requirements.</p> <p>Furthermore, the adopted Local Plans of the county's Local Planning Authorities also contain more localised policy at the District and Borough level that will help to manage this issue.</p>
Biodiversity and Geodiversity	<p>Hertfordshire County has a rich biodiversity offering including three sites of international importance for nature conservation, 44 Local Nature Reserves (LNRs) and 43 nationally designated Sites of Special Scientific Interest (SSSIs) and nearly 2,000 Local Wildlife Sites.</p>	<p>Hertfordshire contains many areas of high ecological value including sites of international and national</p>	<p>Although there is a high level of protection afforded to nature conservation sites within the NPPF and the NPPW, the implementation of the new MWLP can help to conserve biodiversity by directing minerals and waste developments away from sensitive locations and help to enhance biodiversity through the restoration of land at</p>

Topic	Summary of Baseline Information	Summary of Key Sustainability Issues	Summary of the likely evolution of the issues without the implementation of the plan
	<p>Furthermore, a number of sites in Hertfordshire are designated as important for their geology and geomorphology including 19 Regionally Important Geological Sites (RIGSs), eight Geological SSSIs, and seven Biological SSSIs with Earth Science Interest.</p>	<p>importance which are under pressure from farming and forestry, and also from development pressure for new housing and employment.</p>	<p>former waste sites, to an after-use including accessible greenspace.</p> <p>Without the new MWLP it is more likely that the county's ecological assets could be adversely affected by poorly planned minerals waste developments, with less stringent mitigation measures and significant enhancement measures applied. The opportunity to protect and enhance the environment and achieve net biodiversity gains (e.g. through restoration) could be limited.</p> <p>However, the policies in the current adopted Minerals and Waste Local Plan documents contribute towards the management of this issue</p> <p>The new MWLP offers an opportunity to update these policies in response to the current circumstances of the county, notably new development and growth requirements.</p> <p>Furthermore, the adopted Local Plans of the county's Local Planning Authorities also contain more localised policy at the District and Borough level that will help to manage this issue.</p>
Climate Change	<p>Both the minerals and waste industries have the potential to contribute to climate change via the emission of greenhouse gases generated by the use of energy in processes and transportation involved in the industries.</p>	<p>Hertfordshire is likely to experience more extreme impacts as a result of</p>	<p>Despite policies in the National Planning Policy Framework (NPPF) and the National Planning Policy for Waste (NPPW), in the absence of the new MWLP it is likely that contributions to climate change from minerals and waste developments in</p>

Topic	Summary of Baseline Information	Summary of Key Sustainability Issues	Summary of the likely evolution of the issues without the implementation of the plan
	<p>The UK Climate Projections (UKCP18) show that for the east of England mean daily maximum and minimum temperatures will increase both in summer and winter. Although the precise nature of environmental changes is not fully understood, changes to precipitation patterns (and river flow) and flooding have implications for the location, longevity and viability of minerals and waste developments.</p>	<p>climate change – wetter winters with greater incidences of flooding, and warmer, drier summers with greater incidences of low flow rivers (during the summer months).</p>	<p>Hertfordshire will be less appropriately controlled and mitigated.</p> <p>However, the policies in the current adopted Minerals and Waste Local Plan documents contribute towards the management of this issue</p> <p>The new MWLP offers an opportunity to update these policies in response to the current circumstances of the county, notably new development and growth requirements.</p> <p>Furthermore, the adopted Local Plans of the county’s Local Planning Authorities also contain more localised policy at the District and Borough level that will help to manage this issue.</p>
Historic Environment	<p>There are a number of heritage designations in Hertfordshire, from individual buildings and structures of interest to the distinctive character of the market towns of Ware, St Albans, Sawbridgeworth and Bishop’s Stortford.</p> <p>Historic buildings and landscapes make a significant contribution to the special character of Hertfordshire and contribute to a rich and varied cultural heritage, which benefits residents and visitors alike.</p>	<p>There are areas of significant historical importance in Hertfordshire and aesthetic quality, settings and important views should be preserved and enhanced. These are continuously facing pressures</p>	<p>Although there is a high level of protection afforded to historic assets within the NPPF and the NPPW, the implementation of the new MWLP can help to conserve historic assets by directing minerals and waste developments away from sensitive locations.</p> <p>The new MWLP can also help to enhance the historic environment through the restoration of land at former waste sites to appropriately landscaped after-use.</p> <p>Without the MWLP it is more likely that the county’s historic assets could be adversely affected by poorly planned minerals and waste</p>

Topic	Summary of Baseline Information	Summary of Key Sustainability Issues	Summary of the likely evolution of the issues without the implementation of the plan
		for change.	<p>developments, or with less stringent mitigation measures and significant enhancement measures applied.</p> <p>However, the policies in the current adopted Minerals and Waste Local Plan documents contribute towards the management of this issue</p> <p>The new MWLP offers an opportunity to update these policies in response to the current circumstances of the county, notably new development and growth requirements.</p> <p>Furthermore, the adopted Local Plans of the county's Local Planning Authorities also contain more localised policy at the District and Borough level that will help to manage this issue.</p>
Landscape	<p>Hertfordshire is defined by a varied landscape mosaic of chalk hills and plateaus sloping down from the chalk escarpment, in the northern part of the county.</p> <p>Hertfordshire's varied landscape is reflected by the fact that it lies within six National Character Areas and is home to nine landscape character types.</p> <p>Hertfordshire contains one nationally designated landscape, the Chilterns Area of Outstanding Natural Beauty (AONB), which has been protected</p>	<p>The county has significant areas of landscape importance including the Chilterns AONB. The Metropolitan Green Belt is under development pressure for new housing and</p>	<p>There is a high level of protection afforded to nationally designated landscapes within the NPPF. In the absence of the new MWLP there is more potential for new minerals and waste developments to be located in sensitive areas leading to negative impacts on valued landscapes.</p> <p>The new MWLP can help to direct new waste developments to previously developed land in preference to greenfield locations which can help to safeguard the Metropolitan Green Belt.</p> <p>The new MWLP can support the restoration of</p>

Topic	Summary of Baseline Information	Summary of Key Sustainability Issues	Summary of the likely evolution of the issues without the implementation of the plan
	<p>since 1965.</p> <p>The Metropolitan Green Belt covers an area of over 84,500 hectares or over 50% of Hertfordshire.</p> <p>Hertfordshire has a particularly high concentration of planned and designed 20th Century urban greenspace assets, due primarily to the presence of the world's first Garden City at Letchworth, the later Welwyn Garden City, and a number of New Towns.</p>	<p>employment.</p> <p>There is a deficiency of access to natural greenspace in certain parts of the county.</p>	<p>sites to an acceptable after use including the creation of accessible greenspace at former waste sites, including appropriate landscape measures. Without the implementation of the new MWLP this issue may be less well addressed.</p> <p>However, the policies in the current adopted Minerals and Waste Local Plan documents contribute towards the management of this issue</p> <p>The new MWLP offers an opportunity to update these policies in response to the current circumstances of the county, notably new development and growth requirements.</p> <p>Furthermore, the adopted Local Plans of the county's Local Planning Authorities also contain more localised policy at the District and Borough level that will help to manage this issue.</p>
Water Resources and Flooding	<p>Hertfordshire has 19 water courses classed as 'main rivers'. The majority of Hertfordshire lies within the Thames Catchment Area and the remainder is situated within the Anglian River Basin.</p> <p>There are a number of Groundwater Source Protection Zones (Zone I – Inner Protection Zone) found in Hertfordshire, primarily around Watford, Cheshunt, Welham Green, Hoddesdon, Hertford & Letchworth Garden City.</p>	<p>Hertfordshire is affected, to varying degrees, by fluvial, groundwater, surface water, canal, reservoir and sewer flooding. The effects of climate change</p>	<p>In the absence of the new MWLP, there could be an increase in the likelihood of future minerals and waste sites adversely affecting the county's groundwater and directly or indirectly increasing the risk of flooding.</p> <p>However, the policies in the current adopted Minerals and Waste Local Plan documents contribute towards the management of this issue</p> <p>The new MWLP an opportunity to update these</p>

Topic	Summary of Baseline Information	Summary of Key Sustainability Issues	Summary of the likely evolution of the issues without the implementation of the plan
	<p>Hertfordshire is at risk from a variety of sources of flooding. As well as events caused by a single source there may be in combination effects where, for example, elevated river levels impede surface water drainage.</p> <p>Most of Hertfordshire's settlements are predicted to be affected by surface water flooding. Significant levels of fluvial flood risk are seen in the south and south eastern parts of the county in particular. Flooding is expected to increase in frequency and severity as a result of climate change.</p>	<p>will most likely increase the incidence of flooding within the county.</p>	<p>policies in response to the current circumstances of the county, notably new development and growth requirements.</p> <p>Furthermore, the adopted Local Plans of the county's Local Planning Authorities also contain more localised policy at the District and Borough level that will help to manage this issue.</p>
Soil Quality	<p>The Agricultural Land Classification (ALC) system provides a framework for classifying land according to the extent to which its physical or chemical characteristics impose long-term limitations to agricultural use.</p> <p>The majority of Hertfordshire consists of grade 2 and grade 3 agricultural land. There are no areas classified as grade 1 land. There are some small areas of lower quality, grade 4 land, particularly in the north west of the county. Larger settlements do not have associated ALC grades as they are predominantly in urban use.</p>	<p>The majority of Hertfordshire consists of best and most versatile agricultural land, which could be lost to development.</p>	<p>The new MWLP will prioritise the co-location of similar or related facilities on existing waste sites or previously developed sites in preference to greenfield locations. The new MWLP will protect and maintain soils throughout the life of mineral developments by requiring development proposals to be supported by a comprehensive assessment of existing soils, a soil management and handling strategy and where possible, demonstrating any improvements that can be made to the soils. Without the implementation of the MWLP this issue would be less well addressed.</p> <p>However, the policies in the current adopted Minerals and Waste Local Plan documents contribute towards the management of this issue.</p>

Topic	Summary of Baseline Information	Summary of Key Sustainability Issues	Summary of the likely evolution of the issues without the implementation of the plan
			<p>The new MWLP offers an opportunity to update these policies in response to the current circumstances of the county, notably new development and growth requirements.</p> <p>Furthermore, the adopted Local Plans of the county's Local Planning Authorities also contain more localised policy at the District and Borough level that will help to manage this issue.</p>

Table 6: Social Baseline Information Summary

Topic	Summary of Baseline Information	Summary of Key Sustainability Issues	Summary of the likely evolution of the issues without the implementation of the plan
Crime	<p>There is a direct correlation between crime and the most deprived areas in Hertfordshire. Crime is an important feature of measuring deprivation that has major effects on individuals and communities.</p> <p>To measure crime deprivation in Hertfordshire, the county is split into 690 Lower Layer Super Output Areas (LSOA) and each area is ranked from 1 to 690. The most deprived LSOA in Hertfordshire is given a rank of 1, and the least deprived a rank of 690.</p> <p>In 2019 the three most deprived LSOA's in Hertfordshire in the crime domain were located within Welwyn Hatfield and Watford.</p> <p>The number of fly-tipping incidents in Hertfordshire have continued to progressively decrease.</p> <p>During 2019/20 the total number of reported fly tipping incidents was 11,208. This is an 11.7% reduction on 2018/19 and a 26.3% reduction on the highs of 2016/17.</p>	<p>Hertfordshire generally has a low level of crime; however, there is a disparity between amount of crime in the most deprived areas and the least deprived areas.</p>	<p>The new MWLP will support the provision of additional waste management facilities which may reduce the number of fly-tipping incidences in the county. Without the implementation of the new MWLP this issue may be less well addressed.</p> <p>However, the policies in the current adopted Minerals and Waste Local Plan documents contribute towards the management of this issue.</p> <p>The new MWLP offers an opportunity to update these policies in response to the current circumstances of the county, notably new development and growth requirements.</p> <p>Furthermore, the adopted Local Plans of the county's Local Planning Authorities also contain more localised policy at the District and Borough level that will help to manage this issue.</p>

Topic	Summary of Baseline Information	Summary of Key Sustainability Issues	Summary of the likely evolution of the issues without the implementation of the plan
Culture, Leisure & Recreation	<p>Hertfordshire has a range of cultural and leisure attractions, including the Henry Moore Studios and Gardens, ten museums such as the National History Museum Tring, three wildlife parks, numerous adventure and leisure centres, and various tourist attractions such as the Warner Bros. Harry Potter Studio.</p> <p>Many visitors to Hertfordshire come for its countryside, including the Chilterns AONB in the west and north-west, and the wealth of walking and cycling opportunities across the county.</p> <p>According to the Hertfordshire Strategic Green Infrastructure Plan (incorporating the GreenArc area) 2011, there is a deficiency in access to natural greenspace particularly in East Hertfordshire, North Hertfordshire, Hertsmere, and Welwyn Hatfield.</p>	<p>Improved provision and connectivity of recreational resources (be that to linear routes, open space, or recreational facilities) is required.</p>	<p>The new MWLP aims to ensure that minerals and waste developments provide opportunities to improve health and amenity through delivery of green infrastructure, enhanced public rights of way and improved access to recreation as part of the development and restoration of sites. Without the implementation of the MWLP this issue may be less well addressed.</p> <p>However, the policies in the current adopted Minerals and Waste Local Plan documents contribute towards the management of this issue.</p> <p>The new MWLP offers an opportunity to update these policies in response to the current circumstances of the county, notably new development and growth requirements.</p> <p>Furthermore, the adopted Local Plans of the county's Local Planning Authorities also contain more localised policy at the District and Borough level that will help to manage this issue.</p>
Health	<p>The life expectancy at birth for a resident in Hertfordshire for 2017 to 2019 was 81.0 years for men and 84.3 years for women.</p> <p>Stevenage and Watford are the only local authority areas to have worse life expectancy figures (at birth) for women and men in the county compared to the national average figures. St Albans has the</p>	<p>Although Hertfordshire performs better than or at least as good as regional and national averages</p>	<p>The new MWLP aims to ensure that minerals waste developments protect the health, wellbeing, safety and amenity of people and communities in and around Hertfordshire. Without the implementation of the new MWLP this issue may be less well addressed.</p> <p>However, the policies in the current adopted</p>

Topic	Summary of Baseline Information	Summary of Key Sustainability Issues	Summary of the likely evolution of the issues without the implementation of the plan
	<p>highest life expectancy figures for both men and women.</p> <p>In total, 20.1% of 4–5-year-olds are classified as overweight or obese in Hertfordshire and 30% of 10-11-year-olds classified as overweight or obese in Hertfordshire.</p> <p>A total of 59.5% of adults (18+) are classified as overweight or obese in Hertfordshire.</p> <p>In the period 2017 to 2019, the mortality rate from cardiovascular disease for people aged 75 and under in Hertfordshire was 58.5 per 100,000 population, that was 1,698 deaths. The comparable rates in East of England and England are 62.9 and 70.4 per 100,000 population respectively.</p> <p>In the period 2017 - 19, the mortality rate from cancer for people aged 75 and under in Hertfordshire was 117.8 per 100,000 population (directly standardised), that was 3,410 deaths. The comparable rates in East of England and England are 122.6 and 129.2 per 100,000 population respectively.</p>	<p>against the majority of health indicators, health inequalities exist between the least and most deprived areas of the county.</p>	<p>Minerals and Waste Local Plan documents contribute towards the management of this issue.</p> <p>The new MWLP offers an opportunity to update these policies in response to the current circumstances of the county, notably new development and growth requirements.</p> <p>Furthermore, the adopted Local Plans of the county's Local Planning Authorities also contain more localised policy at the District and Borough level that will help to manage this issue.</p>
Housing	<p>The number of dwellings in Hertfordshire is rising.</p> <p>The number of dwellings increased from 478,720 in 2015 to 498,880 in 2020. It is</p>	<p>As there is a high demand for housing in Hertfordshire,</p>	<p>The new MWLP can help to ensure that there are sufficient waste management facilities in the county to meet the waste requirements from the additional dwellings planned by the county's local</p>

Topic	Summary of Baseline Information	Summary of Key Sustainability Issues	Summary of the likely evolution of the issues without the implementation of the plan
	<p>projected that by 2043, the number of households in Hertfordshire will reach 535,521.</p> <p>As of October 2019, there were 10,635 registered vacant dwellings in Hertfordshire. Of the total vacant dwellings, 3,727 (35%) had been so for more than six months.</p> <p>The average sale price of a house in Hertfordshire, as of June 2020, was £395,000. The median sale price for all house types in Hertfordshire from the period of October 2019 to September 2020 was £400,000.</p> <p>Housing in Hertfordshire is less affordable than the England average which has a median house price of £249,000.</p>	<p>the number of households in Hertfordshire over the plan period is projected to increase which will have a direct impact on waste production and management and will contribute towards the demand for sand and gravel supply in the county.</p>	<p>planning authorities. The MWLP will also help to ensure that there is a sufficient supply of minerals to help support the construction of the additional dwellings.</p> <p>Without the implementation of the new MWLP these issues may be less well addressed.</p> <p>However, the policies in the current adopted Minerals and Waste Local Plan documents contribute towards the management of this issue. Two of the Preferred Areas in the current adopted Minerals Local Plan (PA1 & PA2) have not been worked and still have the potential to supply the county with additional sand and gravel if they were to receive planning permission for extraction.</p> <p>The new MWLP offers an opportunity to update these policies in response to the current circumstances of the county, notably new development and growth requirements.</p> <p>Furthermore, the adopted Local Plans of the county's Local Planning Authorities also contain more localised policy at the District and Borough level that will help to manage this issue.</p>
Population	<p>As of mid-2020, Hertfordshire was estimated to have a total population of 1,195,672.</p> <p>Hertfordshire's population has increased by</p>	<p>Hertfordshire's population is increasing. The number of</p>	<p>The new MWLP can ensure that new waste management facilities are located in areas which have the highest source of waste arisings, i.e. the most densely populated areas.</p>

Topic	Summary of Baseline Information	Summary of Key Sustainability Issues	Summary of the likely evolution of the issues without the implementation of the plan
	<p>approximately 155,000 since 2002. That's 14.9% population growth.</p> <p>The total population in Hertfordshire is projected to reach 1,243,138 by mid-2043. That's an increase of approximately 47,466 people between the years of 2020 to 2043.</p> <p>The highest proportion of residents in Hertfordshire are between the ages of 35-54. Of the estimated population of Hertfordshire at mid-2020, 743,114 (62.2%) people were aged between 16 to 64, 205,909 (17.2%) people were aged 65 and over and 246,649 (20.6%) people were aged under 16.</p> <p>Approximately 80% of Hertfordshire's population is white English/Welsh/Scottish/Northern Irish/British. This is more diverse than the average for the East of England (85.28%) but less diverse than the national average of (79.75%).</p>	<p>elderly residents is increasing as people are living longer.</p> <p>High levels of housebuilding are planned for Hertfordshire and this will have a direct influence on population numbers for the county.</p>	<p>The new MWLP can help to ensure that there are sufficient waste management facilities in the county to meet the waste requirements from the increase in population. Without the implementation of the MWLP this issue may be less well addressed.</p> <p>It is likely that the age structure of the population will increase with or without the implementation of the MWLP. These issues are more likely to be addressed through policies in the Hertfordshire District and Borough Local Plans.</p> <p>However, the policies in the current adopted Minerals and Waste Local Plan documents contribute towards the management of this issue.</p> <p>The new MWLP offers an opportunity to update these policies in response to the current circumstances of the county, notably new development and growth requirements.</p> <p>Furthermore, the adopted Local Plans of the county's Local Planning Authorities also contain more localised policy at the District and Borough level that will help to manage this issue.</p>
Social Inclusion	The Index of Multiple Deprivation is a measure of multiple deprivation factors within small areas,	While the overall level of	The new MWLP will enable development of minerals and waste facilities which will provide

Topic	Summary of Baseline Information	Summary of Key Sustainability Issues	Summary of the likely evolution of the issues without the implementation of the plan
and Deprivation	<p>known as Lower-layer Super Output Areas (LSOA). It is a result of combining data from seven distinct domains of deprivation to give a multiple deprivation score.</p> <p>There are 690 LSOAs in Hertfordshire. Each LSOA is ranked from 1 to 690. The most deprived LSOA in Hertfordshire is given a rank of 1, and the least deprived a rank of 690.</p> <p>In 2019 the three most deprived LSOA's in Hertfordshire were located within Hertsmere, Stevenage, and Three Rivers respectively.</p> <p>When compared to all other upper tier local authorities in England, Hertfordshire ranks at 135 out of 151 (with a rank of 1 being the most deprived and 151 being the least).</p>	<p>deprivation is low in the county, there are pockets of high deprivation.</p>	<p>opportunities for employment and help to address deprivation. Without the implementation of the new MWLP investment in and delivery of new minerals and waste facilities and their associated economic benefits are likely to take longer.</p> <p>However, the policies in the current adopted Minerals and Waste Local Plan documents contribute towards the management of this issue.</p> <p>The new MWLP offers an opportunity to update these policies in response to the current circumstances of the county, notably new development and growth requirements.</p> <p>Furthermore, the adopted Local Plans of the county's Local Planning Authorities also contain more localised policy at the District and Borough level that will help to manage this issue.</p>

Table 7: Economy Baseline Information Summary

Topic	Summary of Baseline Information	Summary of Key Sustainability Issues	Summary of the likely evolution of the issues without the implementation of the plan
Economy and Employment	<p>Of those residents of working age (16-64), 82.6% are economically active. This is higher than the proportion for Great Britain (78.4%) and the East of England (80.4%). Of the estimated working age population in Hertfordshire in 2021, 3.7% are unemployed.</p> <p>There are 637,000 employee jobs in Hertfordshire, 64.8% of which are full time and 35.2% of which are part time.</p> <p>The 2019 data for Employee Jobs reports that there are 150 employee jobs in the Mining and Quarrying industries and 4,000 employee jobs in the Water Supply; Sewerage, Waste Management and Remediation Activities industries.</p> <p>Linked with employment in the minerals and waste industries is the employment opportunities provided through the transport industry. The 2019 data for Employee Jobs reports that there are 23,000 employee jobs in the Transportation and Storage industries.</p> <p>The average gross weekly pay in Hertfordshire is £613.3, which is higher than both the regional (£574.9) and national (£586.7) averages.</p>	<p>Higher proportion of residents in Hertfordshire are economically active compared to regional and national averages. Gross weekly earnings remain higher than the regional and national averages.</p>	<p>New waste management facilities are most likely to be located closer to the source of arisings (e.g. urban areas) where the greatest number of employees are located.</p> <p>Without the implementation of the new MWLP opportunities to build the local minerals and waste economies are likely to be taken up less.</p> <p>However, the policies in the current adopted Minerals and Waste Local Plan documents contribute towards the management of this issue.</p> <p>The new MWLP offers an opportunity to update the current adopted Minerals and Waste Local Plan documents, to identify new locations for future minerals and waste developments, which will help to ensure that future proposals are guided towards the most suitable locations of the county.</p> <p>Furthermore, the adopted Local Plans of the county's Local Planning Authorities also contain more localised policy at the District and Borough level that will help to manage this issue.</p>
Transport &	Transport in Hertfordshire reflects the county's	High reliance on	In the absence of the new MWLP which will aim to

Topic	Summary of Baseline Information	Summary of Key Sustainability Issues	Summary of the likely evolution of the issues without the implementation of the plan
Accessibility	<p>location immediately to the north of London. The major roads and railways run north-south through the county.</p> <p>There are five major rail lines running through Hertfordshire. There is no east-west rail line across the county.</p> <p>Immediately to the east and to the west of the county are two major civil airports.</p> <p>There are two systems of navigable waterways in the county, the Grand Union Canal and the Lea and Stort Rivers.</p> <p>The road network, like the railways, is dominated by the north-south routes, the M1 and A1(M) motorways with the M11 immediately to the east of the county. The M25 provides an east-west route across the south of the county with the A414 another east-west route a little to the north.</p> <p>The Hertfordshire Motorway, trunk and Principal A road network carry traffic flows which are double the national average. Traffic is forecast to grow in Hertfordshire by 21% from 2018 to 2036, with most growth occurring on trunk roads, followed by rural roads.</p> <p>Hertfordshire's motorway and trunk road networks</p>	<p>private cars.</p> <p>Traffic levels and congestion throughout the road network at peak times is a major issue.</p> <p>Hertfordshire's motorway and trunk road networks carry three times the national level of HGVs, with principal A roads carrying almost double the national levels.</p> <p>Most of Hertfordshire's rail network suffers with constraints.</p>	<p>reduce emissions and road congestion from the transporting of waste and minerals, traffic growth and congestion may continue in certain areas and along particular routes. However, other non-minerals and waste related road traffic is likely to contribute more to overall traffic growth and congestion in the County.</p> <p>However, the policies in the current adopted Minerals and Waste Local Plan documents contribute towards the management of this issue.</p> <p>The new MWLP offers an opportunity to update these policies in response to the current circumstances of the county, notably new development and growth requirements.</p> <p>Furthermore, the adopted Local Plans of the county's Local Planning Authorities also contain more localised policy at the District and Borough level that will help to manage this issue.</p> <p>A new Local Transport Plan is being prepared by the council (LTP5) which will help to further address some of the identified issues.</p>

Topic	Summary of Baseline Information	Summary of Key Sustainability Issues	Summary of the likely evolution of the issues without the implementation of the plan
	carry three times the national level of HGVs, with principal A roads carrying almost double the national levels.		

4. SA Framework

- 4.1 Schedule 2(6) of the SEA Regulations require the Environmental Report to consider:

“The likely significant effects on the environment, including short, medium and long term effects, permanent and temporary effects, positive and negative effects and secondary, cumulative and synergistic effects, on issues such as -

- (a) biodiversity,*
- (b) population,*
- (c) human health,*
- (d) fauna,*
- (e) flora,*
- (f) soil,*
- (g) water,*
- (h) air,*
- (i) climatic factors,*
- (j) material assets,*
- (k) cultural heritage including architectural and archaeological heritage,*
- (l) landscape and*
- (m) the inter-relationship between the issues referred to in sub-paragraphs (a)–(l).”*

- 4.2 The development of a set of SA Objectives and Sub-Objectives (known as the SA Framework) is a recognised way in which the likely environmental and sustainability effects of a plan can be described, analysed and compared.

Table 8: SA Framework

Objective	Sub-Objective / Criteria for Assessing the Effects
1. Ensure a steady and adequate supply of minerals to meet demand and protect mineral resources and infrastructure	1.1. Ensure a sufficient supply of minerals to meet the county's needs over the plan period 1.2. Ensure that mineral sterilisation is minimised through the use of Mineral Safeguarding Areas 1.3. Encourage the extraction of minerals prior to other development taking place 1.4. Ensure the continued operation of minerals infrastructure through safeguarding
2. Encourage the appropriate location of waste management facilities, including waste water	2.1. Encourage the provision of appropriate waste management facilities as close as practicable to the origin of waste 2.2. Promote and support the co-location of waste management facilities 2.3. Protect and ensure the continued operation of the county's network of waste management facilities through safeguarding 2.4. Where appropriate, give priority to the re-use of previously developed land and sites identified for employment uses
3. Encourage the sustainable use of materials, including the use of secondary and recycled aggregates, and the prior extraction of mineral before other development takes place	3.1. Encourage the increased use of recycled and secondary aggregates 3.2. Encourage the use of virgin materials on-site in the construction of non-mineral development 3.3. Promote the re-use, recovery and recycling of waste through circular economy principles.
4. Promote and encourage sustainable waste management facilities and practices	4.1. Oppose the disposal of waste to landfill, and where waste cannot be avoided, maximise its recovery 4.2. Promote the provision of well-designed, modern and efficient facilities 4.3. Work towards waste net self-sufficiency
5. Ensure that mineral and waste	5.1. Reduce operational emissions through improved or enhanced technologies

Objective	Sub-Objective / Criteria for Assessing the Effects
management development addresses and minimises the impacts of climate change through appropriate mitigation and built-in resilience measures	<p>5.2. Reduce greenhouse gas emissions from minerals and waste transportation and management activities.</p> <p>5.3. Promote energy efficiency by encouraging the use of energy efficient buildings and plant, and the use of appropriate renewable or lower carbon energy sources on site.</p>
6. Support the sustainable transport of minerals and waste by road, rail and water	<p>6.1. Encourage and reduce reliance on road freight movements and seek to increase the efficient use of rail and water where appropriate.</p> <p>6.2. Encourage the use of low emission vehicles for the transportation of waste and minerals</p>
7. Protect and positively contribute towards human health and wellbeing	<p>7.1. Avoid or minimise adverse effects on human health and safety to acceptable levels</p> <p>7.2. Provide opportunities to improve health and amenity through delivery of green and blue infrastructure, enhanced public rights of way and improved access to recreation.</p> <p>7.3. Avoid or minimise adverse effects on the quality and extent of existing recreational assets.</p> <p>7.4. Reduce the incidence of crime associated with waste (e.g. fly-tipping and illegal dumping of large volumes of waste).</p> <p>7.5. Ensure that mineral sites (including their afteruse) do not compromise the operation and safety of aerodromes</p> <p>7.6. Safeguard residential amenity by minimising noise, light and air pollution from activities associated with mineral and waste development</p>
8. Protect and enhance the natural, built and historic environment	<p>8.1. Reduce soil contamination and safeguard soil quality and quantity</p> <p>8.2. Protect the County's best and most versatile agricultural land</p> <p>8.3. Protect against the loss of priority habitats and species and provide opportunities for enhancing geodiversity and biodiversity and achieve net gains</p>

Objective	Sub-Objective / Criteria for Assessing the Effects
	<p>8.4. Conserve and enhance the character and quality of Hertfordshire's landscapes and natural environmental assets including AONB's, historic landscapes, open spaces, parks and gardens and their settings.</p> <p>8.5. Provide for the high quality and expedient restoration of land to an appropriate after-use</p> <p>8.6. Ensure minerals and waste development conserves, protects and enhances designated and non-designated heritage assets (including archaeological assets) and their setting</p>
<p>9. Protect against flooding and safeguard water quality and quantity</p>	<p>9.1. Protect against the risk of flooding and provide opportunities for flood alleviation and mitigation</p> <p>9.2. Protect and enhance the quality of watercourses.</p> <p>9.3. Maximise the efficient use of water and protect the quantity of ground and surface water from over abstraction.</p> <p>9.4 Protect the quality of groundwater</p>
<p>10. Recognise the importance of the minerals and waste sector in the local and wider economy as a generator of employment and its provision of infrastructure which supports businesses and communities</p>	<p>10.1. Generate employment opportunities in the minerals and waste sectors for local people</p> <p>10.2. Ensure an adequate supply of materials for construction</p> <p>10.3. Ensure appropriate waste infrastructure to manage current and future arisings</p>

Use of the SA framework

- 4.3 The findings from the SA of the policies in the emerging MWLP will be presented in matrices, which will include a scoring system using a series of symbols, showing the score for the policy against each of the SA Sub-Objectives, along with a concise justification for the score given.
- 4.4 The SA matrices will be presented as an appendix to the full SA Report. Summaries of the findings for each component of the Plan will be described in the main body of the SA Report. The proposed scoring system is set out within Table 9 below.

Table 9: Scoring System

++	Likely significant positive effect
+	Likely minor positive effect
0	Likely negligible or no effect
+/-	Likely mixed effect
-	Likely minor negative effect
--	Likely significant negative effect
?	Effects of the policy are uncertain

Reasonable Alternatives

- 4.5 Part 3 of the SEA Regulations 12(2) require that:

“The report shall identify, describe and evaluate the likely significant effects on the environment of:

(a) Implementing the plan or programme; and

(b) Reasonable alternatives taking into account the objectives and the geographical scope of the Plan or Programme.”

- 4.6 Schedule 2 (h) of the SEA Regulations requires that the Environmental Report includes a description of:

(h) an outline of the reasons for selecting the alternatives dealt with

- 4.7 Therefore, the SA must appraise not only the policies included in the emerging MWLP but also “reasonable alternatives” to those policies. This implies that alternatives that are not reasonable do not need to be subject to appraisal. There is no requirement in the SEA Regulations for all possible alternatives to be subject to appraisal.
- 4.8 Part (b) of Regulation 12(2) above notes that reasonable alternatives will take into account the objectives of the plan, as well as its geographical scope. Therefore, alternatives that do not meet the objectives of national policy or which are outside the Plan area are unlikely to be reasonable.

4.9 The objectives and policies in the emerging MWLP and reasonable alternatives are still being defined. The Council's reasons for selecting the alternatives to be included in the emerging MWLP will be reported at a later stage in the SA process.

5. Conclusion and Next Steps

- 5.1 In order to meet the requirements of the SEA Regulations, the views of the three statutory consultees (Natural England, Historic England and the Environment Agency) are being sought in relation to the scope and level of detail to be included in the SA Report.
- 5.2 This SA Scoping Report is being published for a five-week consultation with the three statutory bodies from February 2022 to March 2022.
- 5.3 In particular, the consultees are requested to consider:
- Whether there are any additional plans or programmes that are relevant to the SA which should be included (see **Chapter 2**).
 - Whether the information provided in **Appendix 1** is robust and comprehensive, and provides a suitable baseline for the SA of the emerging MWLP.
 - Whether there are any additional key sustainability issues arising from the baseline information (**Chapter 3**) that should be included.
 - Whether the SA framework (**Chapter 4**) is appropriate and includes a suitable range of objectives.
- 5.4 As the emerging MWLP is drafted, it will be subject to the later stages of the SA, using the SA Framework presented in Chapter 4. A full SA report (incorporating the later stages of the SA process) will then be produced and made available to other stakeholders and the general public for wider consultation alongside the emerging MWLP.
- 5.5 The SA Report will contain information on the effects of the Plan's policies and will be published for formal public consultation. It will include an updated Table 1, 'signposting' where each of the requirements of the SEA Regulations have been met.
- 5.6 The SA reports will be written in a user-friendly way in order to ensure that they will be understood by as wide an audience as possible. The SA Report produced at the next stage is likely to be structured as set out below:
- **Summary** - a non-technical summary; a statement of the likely significant effects of the plan; a statement on the difference the process has made; how to comment on the SA report.

- **Introduction** – purpose of SA and the SA report; the Hertfordshire Minerals and Waste Local Plan’s objectives and an outline of its contents; compliance with the SEA Regulations.
- **Relationship with other Plans and Programmes** – links to other plans and programmes and how these have been taken into account.
- **Baseline information** - description of the social, environmental and economic baseline characteristics and the predicted future baseline; difficulties in data collection and its limitations; likely evolution without implementation of the Plan.
- **SA methodology** – description of the SA framework being used and the assessment of alternatives.
- **Assessment of options** – main policy options and how they were identified; comparison of their social, environmental and economic effects, how social, economic and environmental issues/problems were considered in choosing the preferred options; other options considered and why these were rejected.
- **Assessment of policies**– significant social, environmental, and economic effects of the draft policies; how social, environmental and economic issues/problems were considered in developing the policies.
- **Mitigation and enhancement** – proposed mitigation and enhancement measures.
- **Monitoring** – a proposed framework for monitoring the significant effects identified.
- **Conclusion** – conclusions regarding the SA findings, including a summary of the potential significant effects.

Appendix 1: Baseline Information

Minerals Baseline Information:

The main mineral resources in Hertfordshire are sand and gravel with smaller deposits of chalk and brick clay. NPPF paragraph 213 requires Minerals Planning Authorities to plan for a steady and adequate supply of aggregates by preparing an annual Local Aggregate Assessment (LAA). In line with the requirements of the NPPF, Hertfordshire County Council produces an annual LAA to assess the current level of permitted reserves and sales of sand and gravel in Hertfordshire.

Other potential sources of aggregates are also assessed within the LAA, namely secondary and recycled aggregates and imports of sand and gravel and crushed rock, as these can contribute towards the county's supply of aggregate and reduce reliance on the need for primary extracted material.

The following information is taken from the LAA 2021 (covering the calendar year of 2020)⁵, unless otherwise referenced.

Sand and Gravel

Sand and gravel deposits are found in most parts of the County although they are concentrated in an area south of a line between Bishops Stortford in the east and Hemel Hempstead in the west. Currently sand and gravel extraction takes place at three quarries in Hertfordshire:

- Tyttenhanger Quarry, Colney Heath;
- Hatfield Quarry with the linked Symondshyde extraction site; and
- Thorley Hall Farm.

In addition to the in-county supply provided by the three sites listed above, a small portion of sand and gravel consumed within Hertfordshire is supplied by other authorities and marine dredged sources.

A national four-yearly Aggregate Minerals Survey (AMS) provides in-depth information of regional and national sales, inter-regional flows, transportation, consumption and permitted reserves of primary aggregates in England and Wales.

Conducted by MHCLG and BGS, the latest survey was carried out in 2020 to capture data for 2019. The 2019 AMS reports that Hertfordshire received 222,000 tonnes of imported land won sand and gravel and received 216,000 tonnes of

⁵ <https://www.hertfordshire.gov.uk/services/recycling-waste-and-environment/planning-in-hertfordshire/minerals-and-waste-planning/minerals-and-waste-planning.aspx>

imported marine sand and gravel⁶.

The total sales figure for 2020 was 1.12 million tonnes. The average sales of sand and gravel in Hertfordshire over the last 10 years is 1.19 million tonnes (2011-2020). The average sales of sand and gravel in Hertfordshire over the last 3 years is 1.19 million tonnes (2018-2020).

Prior to the NPPF, the government allocated/apportioned Mineral Planning Authorities an amount of sand and gravel they had to supply to the market. This figure was known as the 'sub-regional apportionment'. The 'sub-regional apportionment' figure was used in the adopted Minerals Local Plan (2007). The figure for Hertfordshire at that time was 1.99 million tonnes per annum.

Hertfordshire's Annual Provision Rate (formerly referred to as the sub-regional apportionment) has changed over time due to periodic reviews. The Annual Provision Rate was reviewed through the 2009 National and Regional Guidelines for Aggregates Provision, resulting in a decreased Annual Provision Rate of 1.39 million tonnes per annum.

The 2009 National and Regional Guidelines for Aggregates Provision in England are now out of date (the Guidelines covered the period from 2005-2020) and therefore no longer provide an accurate basis upon which to inform the Annual Provision Rate.

The Annual Provision Rate for Hertfordshire was revised in 2021 and now stands at 1.31 million tonnes per annum. This figure is based on the 2020 10-year average sales figure (1.19Mt), plus an extra ten percent uplift, to provide flexibility and accommodate to future growth. The Annual Provision Rate of 1.31 million tonnes per annum will be used to plan for future sand and gravel supply within the emerging MWLP.

Paragraph 213 of the NPPF states that Minerals planning authorities should plan for a steady and adequate supply of aggregates by maintaining landbanks of at least 7 years for sand and gravel. When using the Annual Provision Rate of 1.31 million tonnes per annum, Hertfordshire has a landbank of 5.9 years (as of the end of 2020).

Clay

The main clay resource in Hertfordshire is brick clay, which is concentrated in the north west of the County, particularly the Hemel Hempstead area, where it has been worked at a number of sites. Clay deposits in Hertfordshire can be patchy and vary in quantity, quality and thickness.

⁶ Table 10 of the Collated results of the 2019 Aggregate Minerals Survey for England and Wales

Brick clay is not currently worked in Hertfordshire and there is very little demand for this type of mineral in the county. The Minerals Planning Authority does not plan for a supply of brick clay but it is safeguarded through the current adopted MLP (2007) and will be safeguarded in the emerging MWLP, through Mineral Safeguarding Areas.

Chalk

The scale of chalk extraction in the county has historically been relatively small compared to other minerals. Chalk has been quarried at a small number of sites in the county for use as an agricultural lime on farms to improve soil quality and is therefore classed as an industrial mineral rather than an aggregate used in construction. There is currently one permitted chalk extraction site in Hertfordshire at Bedwell Park Quarry.

Crushed Rock

There is a local demand for crushed rock in Hertfordshire. Hertfordshire relies on imports of crushed rock via the rail aggregate depots as the geology of the county does not allow for local extraction. According to the 2019 AMS, Hertfordshire received 729,000 tonnes of imported crushed rock⁷ the majority of which either came from Leicestershire or Somerset.

Secondary and Recycled Aggregates

A considerable amount of inert waste is currently being used in the restoration of extraction sites within Hertfordshire. The use of inert waste for restoration and fill will persist as the demand for primary extracted minerals continues.

Inert waste can be turned into recycled aggregate which can be used as a replacement or substitute for primary material (such as virgin sand and gravel). There are currently six sites with planning permission which provide capacity for the production of secondary or recycled aggregates in Hertfordshire.

Waste Baseline Information:

The waste arisings in Hertfordshire are split into the following categories:

- Non-Hazardous waste, consisting of LACW;
- C&I waste; and
- C,D&E and Hazardous waste.

⁷ Table 10 of the Collated results of the 2019 Aggregate Minerals Survey for England and Wales

In terms of Hazardous Waste, Hertfordshire has sufficient capacity to manage this waste stream and is expected to continue to have sufficient capacity throughout the duration of the MWLP Plan period.

The data for Hertfordshire⁸ shows that over 2.7 million tonnes of waste arose within the county in 2019 which consisted of:

- 1,797,677 tonnes of C,D&E
- 407,980 tonnes of C&I waste
- 504,449 tonnes of LAC waste
- 50,602 tonnes of Hazardous waste

Of the above arisings, a large percentage was sent to landfill or deposited in/on land.

Residual waste requiring disposal is set to reduce over time as recycling practices improve and the county council works towards achieving new targets for recycling and composting in line with the Government's Resources and Waste Strategy which sets a target recycling rate of 65% Municipal Solid Waste by 2035.

Hertfordshire is estimated to require a total waste management capacity of 3.14Mtpa (million tonnes per annum) in order to meet net self-sufficiency by the end of the plan period. This is anticipated to require an additional 1.98Mtpa of waste capacity to be brought forward by the end of the plan period.

It is projected that there will be significant capacity gaps for the management of the two largest waste streams: Non-Hazardous residual waste and C, D & E waste.

There is also a projected shortfall in capacity for the recycling and composting of non-hazardous waste by the end of the Plan period.

The significant shortfall in capacity projected for Non-Hazardous residual waste is due to the lack of facilities for final disposal of waste. This gap should decrease over the plan period as recycling rates increase but will only do so if sufficient facilities to recycle and compost the non-residual portion of the waste are developed.

⁸ The primary source of waste data is taken from the Waste Data Interrogator 2019

Environmental Baseline Information

Air Quality

The Environment Act 1995 introduced the National Air Quality Strategy and the requirement for local authorities to determine if statutory air quality objectives are likely to be exceeded.

All local authorities now report to DEFRA on an annual basis and have the obligation to declare Air Quality Management Areas (AQMA)⁹ and develop action plans for improvement of air quality if objectives are likely to be exceeded.

For Hertfordshire, the legal responsibilities around air quality primarily sit with district and borough councils. The district and borough councils are responsible for declaring AQMA's within the county.

There are key strategic transport arteries running north to south across Hertfordshire (e.g. A1M, A10, M1) and the M25 running east to west in the south of the county. Due to Hertfordshire's proximity to London and the key strategic transport arteries, the county experiences congestion hotspots.

The air quality in Hertfordshire is mostly very good, however, a number of locations where the combination of traffic, road layout and geography result in pollutants that build up and are slow to disperse, causing concentrations that reach occasional, unacceptable levels.

There are currently 34 designated AQMAs across Hertfordshire. With the exception of Stevenage Borough and Welwyn Hatfield District, all local authorities have Air Quality Management Areas.¹⁰

Broxbourne Borough Council and Watford Borough Council have the highest number of AQMAs (7 each) while Hertsmere Borough Council has the second highest number of AQMAs (6).

Biodiversity and Geodiversity

Minerals and waste operations can have both negative and positive effects on biodiversity. Landtake for new developments can result in the loss of habitats, and factors such as air, noise, light and water pollution will affect species and habitats in close proximity to minerals and waste developments. However, operations may be located and designed to avoid impacts on protected species and habitats, and the restoration of sites provides opportunities to achieve net gains in biodiversity.

⁹ For Hertfordshire, the legal responsibilities around air quality primarily sit with district and borough councils. The District and Borough Council's declare the AQMA's for the county

¹⁰ <https://uk-air.defra.gov.uk/aqma/list>

Hertfordshire County has a rich biodiversity offering including three sites of international importance for nature conservation: the Lee Valley Special Protection Area (SPA) and Ramsar site, Chilterns Beechwoods Special Area of Conservation (SAC), and Wormley-Hoddesdonpark Woods SAC. Broxbourne Wood (which forms part of Wormley- Hoddesdonpark Woods SAC) is one of Hertfordshire's 36 National Nature Reserve (NNR).

There are also 44 Local Nature Reserves (LNRs) and 43 nationally designated Sites of Special Scientific Interest (SSSIs) of which 52% are considered to be in 'favourable' condition with 45% classified as 'unfavourable recovering'. In addition, there are nearly 2,000 Local Wildlife Sites. Furthermore, a number of sites in Hertfordshire are designated as important for their geology and geomorphology including 19 Regionally Important Geological Sites (RIGSs), eight Geological SSSIs, and seven Biological SSSIs with Earth Science Interest¹¹. The Herts and Middlesex Wildlife Trust manage over 40 nature reserves covering nearly 1,900 acres in Hertfordshire and the former county of Middlesex including SPAs, SSSIs, Ramsar sites, LNRs, and RIGS.

The Herts and Middlesex Wildlife Trust and the Hertfordshire Local Nature Partnership have published an Ecological Network map which identifies the key areas for biodiversity and priority areas for habitat creation. The Hertfordshire Biodiversity Action Plan¹² (BAP) (1998, updated 2006) sets out specific action plans to increase the quality of habitats or population numbers for a number of habitats and species. It also identifies 30 Key Biodiversity Areas which reflect higher concentrations and/or distinctive types of habitat resource. The Hertfordshire BAP identifies five species action plans and eight habitat action plans that guide work on protecting, restoring and recreating a sustainable level of biodiversity in the county.

The Hertfordshire Environmental Forum published Biodiversity Action Plan highlights of 2010, which included projects that contribute towards the implementation of the plan. For example, the Woodland Trust's Heartwood Forest is a new 850 acre forest that began in 2009 with the final aim of 600,000 broadleaved trees being planted¹³.

According to Hertfordshire's Ecological Networks: A report on the current situation and priorities for restoration¹⁴ there is a total of 359km² (35,900 ha) of habitat in Hertfordshire, equating to approximately 22% of the total county area. The findings on individual habitat networks and conditions are summarised below:

- **Woodland** is the most common habitat in Hertfordshire, comprising 10% of land cover. However, less than half of this is able to be classed as semi-natural and only

¹¹ <http://www.hertsgeolsoc.org.uk/rigs.htm>

¹² http://www.hef.org.uk/nature/biodiversity_vision/contents.htm

¹³ http://www.hef.org.uk/nature/action_plan_highlights_2010.pdf

¹⁴ <https://www.hertswildlifetrust.org.uk/sites/default/files/2018-07/Hertfordshire%27s%20ecological%20networks%20report%20-%20Final%20Aug%202014.pdf>

3,876 ha (less than one-quarter of Hertfordshire's woodland) is ancient. Wooded habitats have a scattered distribution throughout the whole county but are particularly concentrated within the Hornbeams & Heaths area in the central and south.

- **Neutral grassland** is the second most common habitat, totalling approximately half of the woodland cover. However, of this only 280ha are of known decent quality. The biggest concentration is in the Hornbeams & Heaths character area.
- **Chalk grassland** is highly restricted to the chalk escarpment in the north between Royston and Tring, although outliers occur elsewhere where the underlying comprising 10% of land cover. However, less than half chalk geology reaches the surface. There are only a handful of good sized patches left, the most significant being Therfield Heath. The majority of sites and the best potential for connectivity are along the chalk escarpment, with a particular priority around the Therfield Heath vicinity. Chalk grassland elsewhere is generally rare, of small patch size and extremely isolated from other patches. Whilst these are an important natural resource in their own right, there is little potential to connect them as part of a chalk grassland network.
- **Heathland and chalk grassland** are the rarest and most threatened habitats. Heathland is now all but wiped out, with just 13ha remaining, while there is just 148ha of high quality chalk grassland sites remaining.
- **Acid open habitats** are the second most vulnerable and poorly connected habitat after chalk grassland. This is despite merging heathland with acid grassland. The distribution of acid grassland is patchy within the county but clearly concentrated in the Hornbeams and Heaths, around Ashridge Estate and Berkhamsted Common in the north-west and Patmore Heath in the east, with lots of potential for improving network connectivity. The soils and open nature of the wooded area around the Ashridge Estate still support fragments of acid open habitats and rare species associated with them.
- **Wetland habitats** are found throughout the river valleys but are notably most concentrated along the Stort in the east and parts of the Lea and Mimram. Old gravel pits in the Lea and the Colne are very important sites for wetland birds. The nationally and internationally important open water bodies at Tring and in the Colne and Lea Valleys are particularly obvious and show a good deal of connectivity due to their large size and concentration in those areas. The most impressive network connectivity, however, is in the Stort Valley where there is a relatively continuous corridor alongside the river and the model shows a lot of high priority potential between these patches. Conversely, apart from small parts of the Mimram and a few others, there is generally very little current or modelled potential wetland habitat connectivity along the important chalk river tributaries of the Lea or Colne. This highlights one of the reasons why chalk river ecosystems in Hertfordshire are failing. Without significant habitat creation alongside these rivers, they will continue

to be highly vulnerable to erosion and diffuse pollution, as well as being unable to support their full range of flora and fauna.

Climate Change

Climate change has the potential not only to affect the environment but also the social and economic aspects of life in Hertfordshire.

General climate change trends projected over UK land for the 21st century in UKCP18¹⁵ are broadly consistent with earlier projections (UKCP09) showing an increased chance of warmer, wetter winters and hotter, drier summers along with an increase in the frequency and intensity of extremes.¹⁶ The UK Climate Projections (UKCP18) show that for the east of England, mean daily maximum and minimum temperatures will increase both in summer and winter. Although the precise nature of environmental changes is not fully understood, changes to precipitation patterns (and river flow) and flooding have implications for the location, longevity and viability of minerals and waste developments. Conversely, predicted dry, hot summers will cause problems of low flows for some of the rivers in the area which will increase demand for water. Extreme weather events may also increase disruption to supply chains, infrastructure and transport of minerals and waste.

Both the minerals and waste industries have the potential to contribute to climate change via the emission of greenhouse gases generated by the use of energy in processes and transportation involved in the industries. In addition, a large amount of methane is produced by landfill sites, generated by the breakdown of biodegradable waste. However, diversion of waste from landfill to other waste management processes have the potential to cut methane emissions and if the energy from waste is recovered and used, it has the potential to offset CO₂ emissions that would otherwise arise from burning fossil fuels for energy.

The latest Department for Business, Energy & Industrial Strategy (DBEIS) figures¹⁷ are set out in the table below and show generally decreasing trends for CO₂ emissions (kilotonnes) in Hertfordshire from 2005 to 2019. The decreasing trend in emissions reflects the decrease in overall emissions for the UK during this period driven mainly by reductions in emissions from power stations, industrial combustion and passenger cars. The reduction from power stations is driven by change in the fuel mix used for electricity generation with a reduction in the amount of coal, which is a carbon intensive fuel.

¹⁵ <https://www.metoffice.gov.uk/research/approach/collaboration/ukcp/index>

¹⁶ Source of text:

https://www.metoffice.gov.uk/binaries/content/assets/metofficegovuk/pdf/research/ukcp/ukcp18_headline_findings_v3.pdf

¹⁷ <https://www.gov.uk/government/statistics/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics-2005-to-2018>

Year	Industry (kt CO2)	Commercial (kt CO2)	Domestic (kt CO2)	Transport (kt CO2)	Total (kt CO2)
2005	1,007.6	1,282.4	2,690.1	2,961.8	7,941.9
2006	1,004.7	1,269.9	2,689.3	2,999.8	7,963.7
2007	977.8	1,225.1	2,622.6	2,991.1	7,816.5
2008	936.0	1,238.3	2,621.0	2,802.6	7,598.0
2009	840.5	1,108.2	2,393.4	2,744.0	7,086.1
2010	889.8	1,163.1	2,577.4	2,672.3	7,302.6
2011	805.2	1,025.2	2,257.8	2,665.4	6,753.5
2012	861.5	1,146.1	2,442.3	2,660.4	7,110.3
2013	819.7	1,100.2	2,405.5	2,647.2	6,972.6
2014	765.9	973.6	2,024.1	2,694.3	6,457.8
2015	697.9	816.3	1,975.5	2,772.4	6,262.1
2016	623.8	692.7	1,879.1	2,826.3	6,021.8
2017	584.8	653.8	1,752.6	2,813.0	5,804.2
2018	566.9	650.0	1,751.6	2,750.6	5,719.1
2019	548.9	596.6	1,702.3	2,637.3	5,485.1
Totals:	11,930.8	14,941.6	33,784.5	41,638.4	102,295.2

Emissions for many Local Authorities are heavily influenced by activities at industrial sites, and changes at a single site can have a big impact on emissions trends. As can be seen from the table above, the transport sector produced the highest CO2 emissions out of the sectors highlighted.

Historic Environment

There are a number of heritage designations in Hertfordshire, from individual buildings and structures of interest to the distinctive character of the market towns of Ware, St Albans, Sawbridgeworth and Bishop's Stortford.

There are over 8,000 Listed Buildings in Hertfordshire (110 Grade I, 7,491 Grade II, and 477 Grade II*), roughly 180 Scheduled Monuments, 46 Registered Parks and Gardens (including two Grade I, 10 Grade II* and 34 Grade II), and one Registered Battlefield (Battle of Barnet 1471). There are 199 Conservation Areas in Hertfordshire, including country house estates and the historic centres of towns and villages. There are also 17,112 entries on the Hertfordshire Historic Environmental Record (HER) and St Albans Urban Archaeological Database (UAD). The majority of designations are within North Hertfordshire and East Hertfordshire¹⁸. Historic England's national Heritage at Risk Register 2020¹⁹, identifies heritage assets in

¹⁸ <https://historicengland.org.uk/research/heritage-counts/2016-heritage-and-place-branding/indicator-data/local-authority-profiles/>

¹⁹ <https://historicengland.org.uk/images-books/publications/har-2020-registers/ee-har-register2020/>

Hertfordshire which warrant extra protection through the planning system. Some of the heritage assets (including buildings, structures, scheduled monuments and places of worship) identified include:

- The Grotto, the Tomb, and the Tunnel at Ashridge Management College
- Remains of old church tower of St Mary and All Saints Church, Thundridge
- Remains of St Mary and All Saints, Old Church Lane, Thundridge
- Church of St Mary, The Street, Furneux Pelham
- Panshanger, Hertingfordbury / Hertfordshire
- Briggens, Hunsdon / Roydon / Stanstead Abbots
- Knebworth House, Knebworth
- North Hertfordshire Masonic Lodge (the Cloisters), Barrington Road, Letchworth Garden City
- The Benedictine Priory of St Mary (Sopwell Priory) and the post-medieval mansions known as Sopwell House or Lee Hall

Historic buildings and landscapes make a significant contribution to the special character of Hertfordshire and contribute to a rich and varied cultural heritage, which benefits residents and visitors alike.

Landscape

Hertfordshire is defined by a varied landscape mosaic of chalk hills and plateaus sloping down from the chalk escarpment, in the northern part of the county. The landscape is cut by chalk river valleys, which form part of the Thames catchment. Hertfordshire's varied landscape is reflected by the fact that it lies within six National Character Areas (NCAs)²⁰:

- 86 South Suffolk and North Essex Clayland
- 87 East Anglian Chalk
- 88 Bedfordshire and Cambridgeshire Claylands
- 110 Chilterns
- 111 Northern Thames Basin
- 115 Thames Valley

The East of England Regional Landscape Framework²¹ identified nine landscape character types in Hertfordshire including:

- Chalk slopes and ridges
- Rolling chalk hills
- Wooded chalk valleys
- Settled chalk valleys

²⁰ <https://www.gov.uk/government/publications/national-character-area-profiles-data-for-local-decision-making/national-character-area-profiles>

²¹ <http://landscape-east.org.uk/map.html>

- Wooded plateau farmlands
- Estate farmlands
- Wooded plateau claylands
- Valley meadowlands
- Urban areas

Hertfordshire also contains over 230 distinct local landscape character areas. Each area is mapped and includes an evaluation of its condition and robustness, and a strategy for influencing landscape change.

Hertfordshire contains one nationally designated landscape, the Chilterns AONB, which has been protected since 1965. It is located north of Hemel Hempstead and west of Watford. Approximately 14% of the Chilterns AONB falls within the county.

The Metropolitan Green Belt covers an area of over 84,500 hectares or over 50% of Hertfordshire. There are no national parks within Hertfordshire, however there are nine county parks, 46 Registered Parks and Gardens, and approximately 5,940 hectares of ancient woodland, all of which contribute to the substantial existing green infrastructure resource in Hertfordshire.

Hertfordshire has a particularly high concentration of planned and designed 20th Century urban greenspace assets, due primarily to the presence of the world's first Garden City at Letchworth, the later Welwyn Garden City, and a number of New Towns (Hemel Hempstead, Stevenage and Hatfield). All are important to green infrastructure as they include greenspace provision as an integral part of the settlement layout and development configuration.

According to the GreenArc Strategic Green Infrastructure Plan (with Hertfordshire)²², there is a deficiency in Access to Natural Greenspace (ANG) particularly in East Hertfordshire, North Hertfordshire, Hertsmere, Welwyn Hatfield, Watford and Stevenage. Broxbourne has a proportionally higher than average provision of ANG.

Soil Quality

The Agricultural Land Classification (ALC) system²³ provides a framework for classifying land according to the extent to which its physical or chemical characteristics impose long-term limitations to agricultural use. The principal factors influencing agricultural production are soil wetness, drought and erosion. These factors together with interactions between them form the basis for classifying land use into one of five grades, where 1 describes land as excellent (land of high agricultural quality and potential) and 5 describes land as very poor (land of low

²² Hertfordshire Strategic Green Infrastructure Plan 2011 available at: <https://www.hertfordshire.gov.uk/media-library/documents/environment-and-planning/landscape/hertfordshire-strategic-gi-plan-2011.pdf>

²³ <http://publications.naturalengland.org.uk/category/5954148537204736>

agricultural quality and potential). Land falling outside these scores is deemed to be 'primarily in non-agricultural use', or 'predominantly in urban use'. Grade 3 can be further separated into grades 3a and 3b, although this requires further local surveys and therefore such data is only available for small areas. Grades 1, 2 and 3a are considered to be best and most versatile agricultural land.

The majority of Hertfordshire consists of grade 2 and grade 3 agricultural land. There are no areas classified as grade 1 land. There are some small areas of lower quality, grade 4 land, particularly in the north west of the county. Larger settlements do not have associated ALC grades as they are predominantly in urban use.

Water Resources and Flooding

Hertfordshire has 19 water courses classed as 'main rivers'. Other rivers, streams, ditches, drains, culverts etc., are classified as an 'ordinary watercourse' which may also contribute to flood risk within the county.

The majority of Hertfordshire lies within the Thames Catchment Area, which covers a total area of 6,229 square miles from Swindon in the west to Crawley in the south. St Albans, Watford, Hatfield, Welwyn Garden City, Hemel Hempstead, Hertford, Ware and Stevenage are situated within the Thames Catchment Area. The remainder of Hertfordshire is situated within the Anglian River Basin, which covers an area of 10,768 square miles from Lincoln in the north to Chelmsford in the south. Letchworth Garden City, Hitchin and Royston are situated within the Anglian River Basin.

The Environment Agency has published a number of Catchment Flood Management Plans (CFMPs) that consider all types of inland flooding. CFMPs are grouped by river basin district. There are a total of three CFMPs that fall within the Thames River Basin District and ten that fall within the Anglian River Basin District. CFMPs that cover Hertfordshire include The Thames CFMP and The Great Ouse CFMP.

There are a number of Groundwater Source Protection Zones (Zone I – Inner Protection Zone) found in Hertfordshire, primarily around Watford, Cheshunt, Welham Green, Hoddesdon, Hertford, Letchworth Garden City.

Hertfordshire is at risk from a variety of sources of flooding, including groundwater, surface water, river flooding (fluvial), sewer or highway flooding, canal flooding and reservoir flooding. As well as events caused by a single source there may be in combination effects where, for example, elevated river levels impede surface water drainage.

Most of Hertfordshire's settlements are predicted to be affected by surface water flooding. Significant levels of fluvial flood risk are seen in the south and south eastern parts of the county in particular. Flooding from all of the sources outlined

above is expected to increase in frequency and severity as a result of climate change.

More information on flooding in Hertfordshire can be found in the county council's adopted Local Flood Risk Management Strategy, the LFRMS 2 (February 2019)²⁴.

Social Baseline Information

Crime

Over the 12-month period from May 2021 to April 2021, 73,377 crimes were reported in Hertfordshire, with the most crimes being reported as anti-social behaviour or violence and sexual offences.

Welwyn Hatfield, Dacorum and St Albans had the highest numbers of total reported crimes within this period.

There is a direct correlation between crime and the most deprived areas in Hertfordshire. Crime is an important feature of measuring deprivation that has major effects on individuals and communities.

To measure crime deprivation in Hertfordshire, the county is split into 690 Lower Layer Super Output Areas (LSOA) and each area is ranked from 1 to 690. The most deprived LSOA in Hertfordshire is given a rank of 1, and the least deprived a rank of 690.

In 2019 the three most deprived LSOA's in Hertfordshire in the crime domain were located within Welwyn Hatfield and Watford²⁵.

The number of fly-tipping incidents in Hertfordshire have continued to progressively decrease. During 2019/20 the total number of reported fly tipping incidents was 11,208. This is an 11.7% reduction on 2018/19 and a 26.3% reduction on the highs of 2016/17²⁶.

Culture, Leisure & Recreation

Leisure activities contribute to the quality of life of residents, providing amenity and opportunities for enhancing intellectual, spiritual and physical wellbeing. Additionally, they represent a tourism asset and their provision can result in

²⁴ <https://www.hertfordshire.gov.uk/services/recycling-waste-and-environment/water/managing-flood-risks.aspx>

²⁵ <https://iao.blob.core.windows.net/publications/reports/9c2e911a581042b993ab668dd0eee15f/E10000015.html>

²⁶ Hertfordshire Waste Partnership Annual Report 2019/2020. Available at: <https://www.hertfordshire.gov.uk/media-library/documents/environment-and-planning/waste-and-recycling/residual-waste-treatment-contracts/hwp-annual-report-2019.20.pdf>

economic benefits to the area. Minerals and waste operations have the potential to affect areas valued for recreation through their operations however, they can also enhance recreation opportunities through the restoration of mineral extraction sites.

Hertfordshire has a range of cultural and leisure attractions, including the Henry Moore Studios and Gardens, ten museums such as the National History Museum in Tring, three wildlife parks, numerous adventure and leisure centres, and various tourist attractions such as the Warner Bros. Harry Potter Studio²⁷.

Hertfordshire has five historic houses and gardens which are open to the public including Knebworth House, Brocket Hall Estate, Hatfield House, Place House Hall, and Benington Lordship Gardens. The historic market towns and villages of Hertfordshire contain many historic assets such as St Albans Cathedral and Clock Tower, the Welwyn Roman Baths, Scott's Grotto, and the Bhaktivedanta Manor Krishna Temple. Hertfordshire is home to numerous golf courses including courses at Chorleywood, Batchworth Park, East Hertfordshire, Whipsnade Park and Cheshunt Park.

Many visitors to Hertfordshire come for its countryside, including the Chilterns AONB in the west and north-west, and the wealth of walking and cycling opportunities across the county. Hertfordshire has an extensive Public Right of Way network of over 5,200 paths totalling more than 3,000km²⁸. The Ridgeway, a National Trail, passes through the county northwest of Hemel Hempstead through the Chilterns AONB. There are a number of National Cycle Network (NCN) routes across Hertfordshire including Route 1 (Dover to Shetland Islands), Route 6 (London to the Lake District), Route 12 (Great North Way), and Routes 57 and 61 (Hertfordshire Greenways –Wheathampstead to Ware).

According to the Hertfordshire Strategic Green Infrastructure Plan (incorporating the GreenArc area) 2011, there is a deficiency in access to natural greenspace particularly in East Hertfordshire, North Hertfordshire, Hertsmere, and Welwyn Hatfield.

Education, Skills & Training

There are over 525 nursery, primary, secondary and special schools in Hertfordshire with the greatest concentration within East Hertfordshire, St Albans, Dacorum and North Hertfordshire. 50.8% of pupils in Hertfordshire achieved GCSEs which is above the national average of 46.9% and the East of England average of 47.0%²⁹.

²⁷ <https://www.visitherts.co.uk>

²⁸ Hertfordshire County Council Rights of Way Improvement Plan July 2017. Available at: https://www.hertfordshire.gov.uk/services/recycling-waste-and-environment/countryside-access/rights-of-way/rights-of-way.aspx#DynamicJumpMenuManager_1_Anchor_3

²⁹ <https://fingertips.phe.org.uk/profile/health-profiles/data#page/13/ati/202/are/E10000015>

According to the English Indices of Deprivation, there are 690 LSOAs in Hertfordshire. Education, Skills and Training is one of the seven domains measured to calculate deprivation. The Education, Skills and Training domain measures the lack of attainment and skills in the local population. According to the 2019 Indices of Deprivation for Hertfordshire, the top three most deprived LSOA areas are located within Dacorum (within Hemel Hempstead Town Ward), North Herts (within Letchworth South East Ward) and Broxbourne (within Waltham Cross Ward).

The University of Hertfordshire is primarily based in Hatfield and has a student community of 25,520 (in 2019/2020) of which, approximately 4,720 are students from outside the UK³⁰. There are also a number of further education colleges located throughout the county including West Herts College, Oaklands College, North Hertfordshire College and Hertford Regional College.

Health

The life expectancy at birth for a resident in Hertfordshire for 2017 to 2019 was 81.0 years for men and 84.3 years for women³¹.

Life expectancy at birth in the UK in 2017 to 2019 was 79.4 years for men and 83.1 years for women³². This means that average life expectancies in Hertfordshire are higher than the national average.

Stevenage and Watford are the only local authority areas to have worse life expectancy figures (at birth) for women and men in the county compared to the national average figures. St Albans has the highest life expectancy figures for both men and women out of all ten District and Boroughs.

In total, 20.1% of 4–5-year-olds are classified as overweight or obese in Hertfordshire and 30% of 10-11-year-olds classified as overweight or obese in Hertfordshire.

At 23.2% Welwyn Hatfield has the highest percentage of overweight or obese 4–5-year-olds and Stevenage has the highest percentage (37.1%) of overweight or obese 10-11-year-olds.

At 17%, Three Rivers has the lowest percentage of overweight or obese 4–5-year-olds and St Albans has the lowest percentage (22.8%) of overweight or obese 10-11-year-olds.

³⁰ University of Hertfordshire Strategic Reports and Financial Statements 2019-2020: https://www.herts.ac.uk/__data/assets/pdf_file/0006/320568/0903-UH-Full-Finance_Strategic-Report-2020_P6_nosigs_2_-1.pdf

³¹ <https://www.hertfordshire.gov.uk/microsites/herts-insight/topics/wellbeing-and-health.aspx>

³² <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/lifeexpectancies/bulletins/nationallifetablesunitedkingdom/2017to2019>

A total of 59.5% of adults (18+) are classified as overweight or obese in Hertfordshire. At 69.5%, Stevenage has the highest percentage of adults classified as overweight or obese and at 51.1%, St Albans has the lowest percentage of adults classed as overweight or obese.

In 2014/15³³, 7.2% of teenagers aged 15 in Hertfordshire were estimated to be current smokers and in 2019 11% of adults in Hertfordshire were current smokers.

In Hertfordshire in 2018, there were 10.4 teenage (under 18) conceptions per thousand women aged 15 to 17 years - that was a total of 207 conceptions over the year. The comparable rates in East of England and England are 14.4 and 16.7 per 1,000 women aged 15 to 17 years respectively.

The most recent data (January 2021) shows that the number children with an Education, Health and Care Plan (EHCP)³⁴ was 6,062 within Hertfordshire. This equates to a rate of 2.7% of children on the school roll compared to 3.5% in the East of England and 3.7% in England.

The data for 2019/2020, shows that 69.2% of adults (19+) were physically active³⁵ in Hertfordshire.

Although the rates are falling, cardiovascular disease is one of the major causes of death in people under the age of 75 in England. In the period 2017 to 2019, the mortality rate from cardiovascular disease for people aged 75 and under in Hertfordshire was 58.5 per 100,000 population (directly standardised), that was 1,698 deaths. The comparable rates in East of England and England are 62.9 and 70.4 per 100,000 population respectively.

In the period 2017 to 2019, the mortality rate from cancer for people aged 75 and under in Hertfordshire was 117.8 per 100,000 population (directly standardised), that was 3,410 deaths. The comparable rates in East of England and England are 122.6 and 129.2 per 100,000 population respectively.

One of the top causes of death in England for people under the age of 75 is respiratory disease. One of the leading causes is smoking which can also cause chronic obstructive pulmonary disease, one of the major respiratory diseases.

In the period 2017 to 2019, the mortality rate from respiratory disease for people

³³ This is the most up to date data available. The Health and Social Care Information Centre (HSCIC) was commissioned by the Department of Health to develop the What About YOUth 2014 (WAY 2014) survey. This large-scale survey would provide valuable information on the health and wellbeing of teenagers including information on smoking prevalence

³⁴ EHCP is for children and young people aged up to 25 who need more support than is available through special educational needs support

³⁵ Physically active adults are those who state that they took part in at least 150 minutes of moderate intensity activity per week, in bouts of 10 minutes or more, in the previous 28 days

aged 75 and under in Hertfordshire was 27.5 per 100,000 population (directly standardised), that was 785 deaths. The comparable rates in East of England and England are 29.1 and 34.2 per 100,000 population respectively.

Housing

The number of dwellings in Hertfordshire is rising. The number of dwellings increased from 478,720 in 2015 to 498,880 in 2020. It is projected that by 2043, the number of households in Hertfordshire will reach 535,521.

As of October 2019, there were 10,635 registered vacant dwellings in Hertfordshire, the majority of which are located in Dacorum, Hertsmere, North Hertfordshire and St Albans. Of the total vacant dwellings, 3,727 (35%) had been so for more than six months.

According to the English Indices of Deprivation, there are 690 LSOAs in Hertfordshire. Housing and local services is one of the seven domains measured for deprivation. The indicators of this domain fall into two sub-domains: 'geographical barriers', which relate to the physical proximity of local services, and 'wider barriers' which include issues relating to access to housing such as affordability.

The most deprived LSOA in Hertfordshire for housing and local services is in Dacorum (within Ashridge Ward) and the least deprived LSOA is in East Hertfordshire (within Sawbridgeworth Ward). The top 10 most deprived LSOA's fall within Dacorum, East Herts, Welwyn Hatfield, St Albans and Hertsmere.

The majority of houses in Hertfordshire are terraced houses (accounting for 30% of houses), followed by flats/maisonettes (25%) then semi-detached houses (22%). The remainder of houses in Hertfordshire are comprised of detached houses (17%) and bungalows (6%)³⁶.

The average sale price of a house in Hertfordshire, as of June 2020, was £395,000. The median sale price for all house types in Hertfordshire from the period of October 2019 to September 2020 was £400,000. The areas with the highest median house prices include St Albans, Three Rivers and Hertsmere.

Housing in Hertfordshire is less affordable than the England average which has a median house price of £249,000.

Hertfordshire is set to experience substantial housing growth over the coming decades. Each of the local authorities within Hertfordshire have outlined how much housing growth they aim to achieve within their designated Local Plan periods.

³⁶ Percentage of housing by type in 2021

The table below shows roughly how many houses are being planned for within the Hertfordshire District/Borough Local Plans.

Council	Planned Housing Figure	Source of housing figure
Broxbourne	7,700 homes by 2033	Adopted Local Plan (2018 - 2033) June 2020
Dacorum	16,600 homes by 2038	Emerging Strategy for Growth Consultation (Anticipated Plan period:2020-2038)
East Herts	18,458 homes by 2033	2018 East Herts District Local Plan (2011-2033) Adopted October
Hertsmere	Approximately 12,000 homes by 2038	Duty to Cooperate meeting 02/06/2021
North Herts	15,950 homes by 2031	Proposed Submission Local Plan October 2016 (Anticipated Plan period:2011-2031)
St Albans	14,608 homes by 2036	St Albans Draft Regulation 19 Local Plan 2018 ³⁷
Stevenage	7,600 homes from 2011-2031	Stevenage Borough Local Plan (2011-2031) Adopted May 2019
Three Rivers	12,624 homes by 2038	Local Plan Regulation 18 Preferred Policy Options Consultation (Anticipated Plan period:2018-2038)
Watford	7,500 homes by 2036 ³⁸	Regulation 18 Preferred Options Local Plan Consultation September 2019 (Anticipated Plan period:2020-2036)
Welwyn Hatfield	12,000 homes by 2032 ³⁹	Draft Local Plan Submission Document, August 2016 (Anticipated Plan period:2013-2032)

³⁷ The emerging St Albans Local Plan was withdrawn in November 2020. St Albans District Council are now preparing a new Local Plan and the housing numbers in the new plan will vary from what is set out within this table. The figures will be updated as the SA Report progresses (and as updated figures become available)

³⁸ The government has set Watford a challenging target: to deliver approximately 12,000 new homes up to 2036. However, to date the council has identified that there is only enough land available for about 7,500 new homes

³⁹ The housing target and plan period may change as a result of the current examination taking place for the submitted Welwyn Hatfield Borough Council Local Plan.

Population

As of mid-2020, Hertfordshire was estimated to have a total population of 1,195,672⁴⁰, with an almost even split between females (51%) and males (49%)⁴¹.

Hertfordshire's population has increased by approximately 155,000 since 2002. That's 14.9% population growth. Population average age was 39.9 in 2020 and it increased by 1.6 years since 2002. The county was ageing slower than England and Wales in which the age grew by 1.7 years in the same period.⁴²

The highest proportion of residents in Hertfordshire are between the ages of 35-54. Of the estimated population of Hertfordshire at mid-2020, 743,114 (62.2%) people were aged between 16 to 64, 205,909 (17.2%) people were aged 65 and over and 246,649 (20.6%) people were aged under 16.

There were 197,200 people aged 65 and over in Hertfordshire as of mid-2016. This means that there has been an increase in people aged 65 and over by approximately 8,709 in the four-year period from mid-2016 to mid-2020.

The total population in Hertfordshire is projected to reach 1,243,138 by mid-2043. That's an increase of approximately 47,466 people between the years of 2020 to 2043.⁴³ By mid-2043, it is projected that 224,805 people aged 65 and above will be living in Hertfordshire. That's an increase of approximately 18,896 people within this age range when compared to mid-2020 figures.

Approximately 80.8%⁴⁴ of Hertfordshire's population is white English/ Welsh/ Scottish/ Northern Irish/ British. This is more diverse than the average for the East of England (85.28%) but less diverse than the national average of (79.75%).

Social Inclusion and Deprivation

The Index of Multiple Deprivation is a measure of multiple deprivation factors within LSOA's. It is a result of combining data from seven distinct domains of deprivation to give a multiple deprivation score.

⁴⁰ Figure taken from: <https://reports.instantatlas.com/view-report/881ccb3a8b2b44afa72d1dc3d7db3aca/E10000015?clear=true> . Estimates of the Hertfordshire Population are produced annually by the Office for National Statistics giving the population as at 30th June each year. These "mid year" estimates are based on the previous National Census and are calculated using the numbers of births and deaths in the area and estimates of migration between areas within the UK and internationally to and from areas of the UK

⁴¹ <https://reports.instantatlas.com/view-report/881ccb3a8b2b44afa72d1dc3d7db3aca/E10000015?clear=true>

⁴² <https://www.plumplot.co.uk/Hertfordshire-population-changes.html>

⁴³ Every two years the Office for National Statistics uses the mid-year population estimates as the basis of a set of 25-year population projections. The total population projections stated in this report are based on mid-2018 data (most up to date data available) and will differ from the previous projections which were based on mid-2016 data

⁴⁴ Figure based on 2011 Census data

The seven domains include: Income Deprivation; Employment Deprivation; Health Deprivation and Disability; Education, Skills and Training Deprivation; Crime; Barriers to Housing and Services; and Living Environment Deprivation. Each domain contains a number of indicators.

There are 690 LSOAs in Hertfordshire. Each LSOA has a population of approximately 1500 residents and 650 households and can be thought of as 'Neighbourhoods'. Each LSOA is ranked from 1 to 690. The most deprived LSOA in Hertfordshire is given a rank of 1, and the least deprived a rank of 690.

In 2019 the three most deprived LSOA's in Hertfordshire were located within Hertsmere, Stevenage, and Three Rivers respectively⁴⁵.

When compared to all other upper tier local authorities in England, Hertfordshire ranks at 135 out of 151 (with a rank of 1 being the most deprived and 151 being the least).

Economy Baseline Information

Economy and Employment

Of those residents of working age (16-64), 82.6% are economically active⁴⁶. This is higher than the proportion for Great Britain (78.4%) and the East of England (80.4%). Of the estimated working age population in Hertfordshire in 2021, 3.7% are unemployed.⁴⁷

Unemployment within Hertfordshire is at 4.0% which is below the national average of 5.0% and below the East of England average of 4.3%.

Of those in work, the most common types of employment are professional occupations, and associate professional and technical occupations.

The 2019 data for Employee Jobs⁴⁸ reports that there are 150 employee jobs in the Mining and Quarrying industries and 4,000 employee jobs in the Water Supply; Sewerage, Waste Management and Remediation Activities industries.⁴⁹ Linked with employment in the minerals and waste industries is the employment opportunities

⁴⁵ Indices of Deprivation in Hertfordshire 2019:

<https://hertscc.maps.arcgis.com/apps/MapSeries/index.html?appid=faa9c3160cf8409ba082fd73a597df20>

⁴⁶ Economically active residents include people who are either in employment or unemployed.

⁴⁷ Unemployment Profile for Hertfordshire: <https://reports.instantatlas.com/view-report/e8a1ce3ece784eafa723373cfcedabb0/E10000015?clear=true>

⁴⁸ Labour Market Profile for Hertfordshire:

<https://www.nomisweb.co.uk/reports/Imp/la/1941962834/report.aspx#tabempunemp>

⁴⁹ Employee Jobs is the number of jobs held by employees. Employee jobs excludes self-employed, government-supported trainees and HM Forces, so this count will be smaller than the total jobs figure

provided through the transport industry. The 2019 data for Employee Jobs reports that there are 23,000 employee jobs in the Transportation and Storage industries.

There are 637,000 employee jobs⁵⁰ in Hertfordshire, 64.8% of which are full time and 35.2% of which are part time.

The average gross weekly pay in Hertfordshire is £613.3, which is higher than both the regional (£574.9) and national (£586.7) averages.

There are 62,870 enterprises and 70,520 local units (sites or workplaces) in Hertfordshire. The majority of businesses are micro, with up to 9 people in the business.

Broxbourne, Stevenage, and Watford have the highest percentages of claimant counts⁵¹ in the county and East Hertfordshire, Broxbourne and Watford are reported to have the highest levels of economic inactivity⁵².

Each of the local authorities within Hertfordshire have outlined the amount of employment growth either through the amount of jobs or employment land they would like to provide within their Local Plan periods.

Transport & Accessibility

Transport in Hertfordshire reflects the county's location immediately to the north of London. The major roads and railways run north-south through the county as part of the national transport system linking London to the rest of the country and traffic levels are high with a complex movement pattern both within the county and across the borders⁵³.

The five major rail lines through Hertfordshire are the West Coast Main Line through Watford, the Midland Main Line through St Albans, the East Coast Main Line through Stevenage, the West Anglia Line through Broxbourne and Bishop's Stortford and the Chiltern Main Line through Rickmansworth. The Midlands Main Line is also part of the Thameslink system which crosses through London to the south. The other lines include the Abbey Line, from St Albans Abbey station to Watford, and the Metropolitan Line from West Watford and Rickmansworth which is

⁵⁰ Employee Jobs is the number of jobs held by employees. Employee jobs excludes self-employed, government-supported trainees and HM Forces, so this count will be smaller than the total jobs figure

⁵¹ Claimant Count is the number of people claiming Jobseeker's Allowance plus those who claim Universal Credit and are required to seek work and be available for work, **and is** not a definitive measure of unemployment.

⁵² Claimant Count Dashboard for Hertfordshire:

<https://dashboards.instantatlas.com/viewer/report?appid=2e395d1ccdbf4b2d9ae17e768bf1067c>

⁵³ Hertfordshire County Council Local Transport Plan, available at:

<https://www.hertfordshire.gov.uk/services/recycling-waste-and-environment/planning-in-hertfordshire/transport-planning/local-transport-plan.aspx>

part of the London Underground system. There is no east-west rail line across the county.

The majority of Hertfordshire's rail users are commuters to central London leading to capacity problems and overcrowding at peak hours, however, there are also reliability issues. There is also considerable commuter usage in the opposite direction to the main flow and use of the long-distance lines to destinations north of the county.

Similar to Great Britain, Hertfordshire has experienced growth from the mid-90s, apart from the 2009 recession where there was a slight decline. Since 2009 rail levels have seen large growth and are now at their highest recorded. Most rail trips in Hertfordshire (60%) are for travelling to work.⁵⁴

Most of Hertfordshire's rail network suffers with constraints, whether from line capacity or from infrastructure, such as service frequencies or platform length. A number of Hertfordshire's rail lines are forecast to be over capacity by 2031: Midland Main Line long distance services to St Pancras are forecast to be at 133% of capacity by 2031; West Coast Main Line suburban services at 107%; Great Northern services to Moorgate at 104%; and Chiltern services to Marylebone at 100%. Forecast rail growth up to 2043 will quickly erode much of the spare capacity delivered by the Thameslink and Crossrail 2.

Immediately to the east and to the west of the county are two major civil airports, London Stansted, near Bishop's Stortford, and London Luton, north of Harpenden. Heathrow lies to the southwest of the county.

There are two systems of navigable waterways in the county, the Grand Union Canal in the west through Berkhamsted and the Lea and Stort Rivers in the east from Hertford and Bishop's Stortford. They are mainly used for recreation, boating, fishing and walking and cycling on the tow paths (both are Sustrans routes).

The road network, like the railways, is dominated by the north-south routes, the M1 and A1(M) motorways with the M11 immediately to the east of the county. The M25 provides an east-west route across the south of the county with the A414 another east-west route a little to the north. In the north of the county the A505 links the M11 to the A1(M) via the Baldock Bypass and then continues through Hitchin to Luton.

As an economically buoyant county near London, traffic levels are high. The Hertfordshire Motorway, trunk and Principal A road network carry traffic flows which are double the national average. Traffic is forecast to grow in Hertfordshire by 21%

⁵⁴ Hertfordshire County Council Traffic and Transport Data Report 2019. Available at: <https://www.hertfordshire.gov.uk/services/highways-roads-and-pavements/speed-awareness-and-driver-training/transport-and-accident-data/transport-and-accident-data.aspx>

from 2018 to 2036⁵⁵, with most growth occurring on trunk roads, followed by rural roads. There is considerable variation between districts in the predicted growth rates over the next twenty years, with St Albans having the lowest (16%) and North Herts the highest (25%). The main factor behind these growth rates are the proposed increases in the numbers of households and jobs⁵⁶.

Serious link congestion occurs on sections of the M25, M1 and the A1, along with the A602 and A1000. All of Hertfordshire's main towns suffer with congestion junctions. There were 194 congestion hotspots in 2018, with 67% of these located in urban areas.

Hertfordshire has both freight traffic distributing goods within the county and a large number of HGVs (heavy goods vehicles over 3.5 tonnes) passing through the county on the strategic routes. Hertfordshire's motorway and trunk road networks carry three times the national level of HGVs, with principal A roads carrying almost double the national levels.

Hertfordshire has some of the highest car/van ownership levels in the country. The majority of households in car ownership has increased in Hertfordshire since the 2011 Census, with the highest levels found in East Hertfordshire and the lowest levels of car ownership found in Stevenage and Watford. Over 60% of people aged 16-74 in Hertfordshire use a car (either as the driver or passenger) as their main mode of transport to work. Hertfordshire residents travel to work less by bus, bicycle and as a car passenger than nationally or regionally, but have higher proportions travelling by rail reflecting the commute into London. In Hertfordshire, 18.3% of residents take the train to work and 10.3% walk to work.

Approximately 22% of people work from home at least once a week in Hertfordshire, although this percentage is likely to significantly increase following the implications of Covid-19.

Cycling levels fell in 2017 compared to 2016 by 6%, however the 2017 levels are still higher than pre-2008 levels. The 2018 Hertfordshire County Travel Survey found that only 1.9% of journeys less than 3 miles were undertaken by bicycle, which is well below the target level.

In 2018, bus usage levels fell nationally by 1.9% and by 8% in Hertfordshire compared to the previous year. Since many people use their car to travel short distances, Hertfordshire County Council has a number of strategies in place to make walking a more attractive alternative. The Active Lives Strategy 2015/16 states that 80% of people in Hertfordshire walked at least once a month for any

⁵⁵ It should be noted that these projections are likely to change as Hertfordshire District and Borough Council Local Plans are published

⁵⁶ Hertfordshire County Council Traffic and Transport Data Report 2019. Available at: <https://www.hertfordshire.gov.uk/services/highways-roads-and-pavements/speed-awareness-and-driver-training/transport-and-accident-data/transport-and-accident-data.aspx>

purpose, which is slightly higher than the national average of 77%. In 2018, 76.3% of all journeys under 1 mile in length in Hertfordshire were made by walking.