



South West Herts Joint Strategic Plan

Sustainability Appraisal Scoping Report

South West Hertfordshire Authorities

Final report

Prepared by LUC

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Chapter 1

Introduction

1.1 The South West Hertfordshire authorities, supported by Hertfordshire County Council (HCC), commissioned LUC in December 2021 to carry out the Scoping stage of a Sustainability Appraisal (SA) incorporating Strategic Environmental Assessment (SEA) for the emerging South West (SW) Hertfordshire Joint Strategic Plan (JSP). As explained later in this chapter, Health Impact Assessment (HIA) and Equalities Impact Assessment (EqIA) will be carried out as part of the SA and are addressed within this Scoping Report; however for simplicity most references throughout the report are just to the SA, which should be taken as incorporating SEA, HIA and EqIA.

1.2 The purpose of this Scoping Report is to provide the context for, and determine the scope of, the SA of the JSP and to set out the framework for undertaking the later stages of the SA.

1.3 The Scoping stage of SA is summarised below:

- Reviewing other plans, policies and programmes.
- Considering the current state of the environment, as well as social economic factors in the plan area (South West Hertfordshire)
- Identifying any key environmental, social and economic issues which may be affected by the JSP.
- Setting out the 'SA framework', which comprises specific sustainability objectives against which the likely effects of the JSP can be assessed.

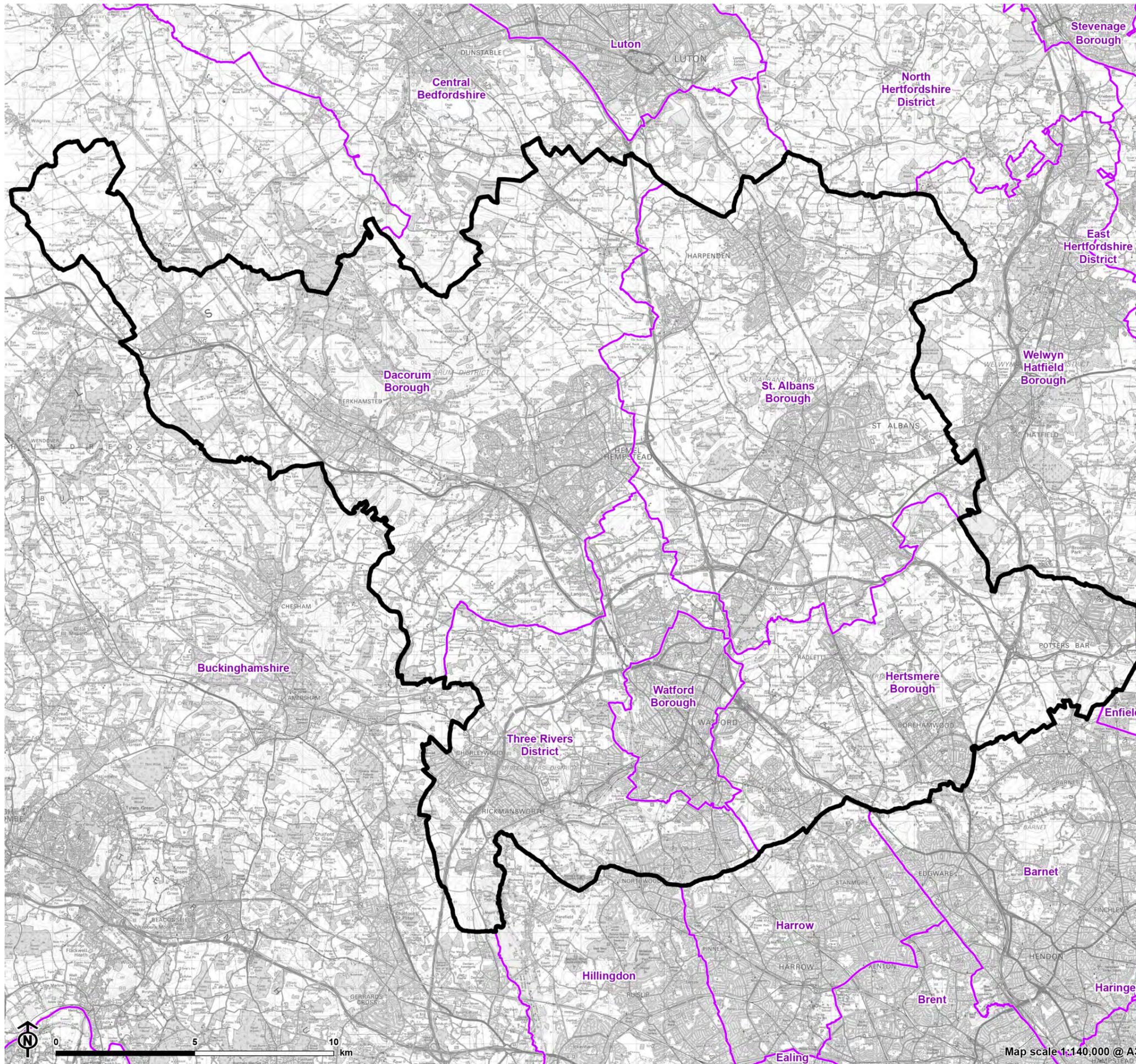
The Plan Area

1.4 SW Hertfordshire consists of the following five Local Planning Authorities: Dacorum, Hertsmere, St. Albans, Three Rivers and Watford (see **Figure 1.1**).

1.5 The area has a rich and varied natural and historic environment, which makes it an attractive place to live, visit and work. SW Hertfordshire is defined by its varied urban character and proximity to London as well as its rural character and access to the countryside. There is a diversity in character across the area, from rural villages to historic market towns and areas with more in common with outer London. SW Hertfordshire also contains important landscapes such as the Chilterns Area of Outstanding Natural Beauty (AONB) and Colne Valley Regional Park.

1.6 The M1, West Coast Mainline and Midland Mainline all cut across the west of Hertfordshire, close to three of Hertfordshire's largest towns, Watford, Hemel Hempstead and St Albans.

Figure 1.1: Joint Strategic Plan Area



South West Hertfordshire
Local Authority boundary

South West Herts Joint Strategic Plan

1.7 The five SW Hertfordshire authorities – Dacorum Borough Council, Hertsmere Borough Council, St. Albans City and District Council, Three Rivers District Council and Watford Borough Council – have committed to producing a JSP for SW Herts, supported by Hertfordshire County Council.

1.8 The JSP will provide an integrated strategic planning framework and evidence base to support sustainable growth across SW Hertfordshire to 2050, including the planned delivery of new homes and economic development, and the anticipated supporting infrastructure needed with an overall focus on combating the climate crisis and enhancing the natural environment.

1.9 As part of the formation of the plan, the authorities are committed to ensuring there will be early, proportionate and meaningful engagement between plan makers and communities, local organisations, businesses, infrastructure providers and statutory bodies. A Statement of Community Involvement (SCI) has been adopted and is supplemented by a more detailed Communications and Engagement Plan specifically covering the Issues and Options (Regulation 18) engagement.

1.10 The current programme anticipates that the JSP will be submitted to the Planning Inspectorate for independent examination in mid-2024 and adopted in late 2024, subject to the examination process. The programme is, however, dependent on progress made on the current round of district-level Local Plans and any national changes that may be announced to the plan-making system.

Sustainability Appraisal and Strategic Environmental Assessment

1.11 Under the amended Planning and Compulsory Purchase Act 2004 **[See reference 1]**, SA is mandatory for Development Plan Documents. For these

documents it is also necessary to conduct an environmental assessment in accordance with the requirements of the Strategic Environmental Assessment (SEA) Directive (European Directive 2001/42/EC) as transposed into law in England by the SEA Regulations [See reference 2], which remain in force despite the UK exiting the European Union in January 2020. Therefore, it is a legal requirement for the JSP to be subject to SA and SEA throughout its preparation.

1.12 The requirements to carry out SA and SEA are distinct, although it is possible to satisfy both using a single appraisal process (as advocated in the national Planning Practice Guidance [See reference 3]), whereby users can comply with the requirements of the SEA Regulations through a single integrated SA process – this is the process that is being undertaken for SW Hertfordshire. From here on, the term ‘SA’ should therefore be taken to mean ‘SA incorporating the requirements of the SEA Regulations’.

1.13 The SA process comprises a number of stages, with Scoping being Stage A as shown below.

Stage A: Setting the context and objectives, establishing the baseline and deciding on the scope.

Stage B: Developing and refining options and assessing effects.

Stage C: Preparing the Sustainability Appraisal Report.

Stage D: Consulting on the JSP and the SA Report.

Stage E: Monitoring the significant effects of implementing the JSP.

Health Impact Assessment

1.14 Although not a statutory requirement, Health Impact Assessment (HIA) aims to ensure that health-related issues are integrated into the plan-making process. The SA objectives will address health issues and the HIA of the JSP will be carried out as part of the SA. Recommendations will be made in relation to how the health-related impacts of the JSP can be optimised as the options are developed into detailed policies and broad locations for development.

Equalities Impact Assessment

1.15 The requirement to undertake formal Equalities Impact Assessment (EqIA) of development plans was introduced in the Equality Act 2010 but was abolished in 2012. Despite this, authorities are still required to have regard to the provisions of the Equality Act, namely the Public Sector Duty which requires public authorities to have due regard for equalities considerations when exercising their functions.

1.16 In fulfilling this duty, similar to the HIA, the SA objectives will address equality issues and the EqIA of the JSP will be carried out as part of the SA. Recommendations will be made in relation to how the equality-related impacts of the JSP can be optimised as the options are developed into detailed policies and broad locations for development.

Habitat Regulations Assessment

1.17 The requirement to undertake Habitats Regulations Assessment (HRA) of development plans was confirmed by the amendments to the Habitats Regulations published for England and Wales in July 2007 and updated in 2010 and again in 2012 and 2017 [**See reference 4**]. The Regulations translate Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna

and Flora (Habitats Directive) and 79/409/EEC (Birds Directive) into UK law and remain a legal requirement despite the UK exiting the European Union.

1.18 The purpose of HRA is to assess the impacts of a land-use plan against the conservation objectives of a European site and to ascertain whether it would adversely affect the integrity of that site.

1.19 The HRA will be undertaken separately but the findings will be taken into account in the SA where relevant (for example to inform judgements about the likely effects of potential broad development locations on biodiversity).

1.20 Recently the HRA for the emerging Dacorum Local Plan concluded that there may be likely significant effects on the Chiltern Beechwoods SAC due to recreational impacts and therefore an Appropriate Assessment was required. The visitor survey and recreation impact assessment [\[See reference 5\]](#) published in March 2022 to inform the HRA of the emerging Local Plan includes the need for mitigation in the form of a 'development exclusion zone' of 500m around the European site. The same issues are likely to arise within the HRA that will be carried out for the emerging JSP.

Approach to Scoping

1.21 There are five tasks involved at the Scoping Stage:

Stage A1: Setting out the policy context for the SA of the JSP (i.e. key government policies and strategies that influence what the JSP and the SA need to consider).

Stage A2: Setting out the baseline for the SA of the JSP (i.e. the current and likely future environmental, social and economic conditions in SW Herts).

Stage A3: Drawing on A1 and A2, identify the particular sustainability problems and/or opportunities ('issues') that the JSP and SA should address.

Stage A4: Drawing on A1, A2 and A3, develop a framework for SA objectives and assessment criteria to appraise the constituent parts of the JSP in isolation and in combination.

Stage A5: Consultation on the scope of the SA.

1.22 This Scoping Report fulfils the requirements set out above with a view to establishing the likely significant effects of constituent parts of the JSP in isolation and in combination. In accordance with national Planning Practice Guidance (PPG), published on-line by the Government, the Scoping Report should be proportionate and relevant to the JSP, focussing on what is needed to identify and assess the likely significant effects.

1.23 This report also includes an appraisal of the draft vision, objectives and high-level growth types as set out in the Regulation 18 consultation document (August 2022).

Meeting the requirements of the SEA Regulations

1.24 The relevant sections of the Scoping Report that are considered to meet the SEA Regulations requirements are signposted below (the remainder will be met during subsequent stages of the SA of the JSP). Signposting information should be included in the full SA Report at each stage of the SA to show how the requirements of the SEA Regulations have been met through the SA process.

1.25 The SEA Regulations require the responsible authority to prepare, or secure the preparation of, an 'environmental report', which in this case will comprise the SA report. The report shall identify, describe and evaluate the likely significant effects on the environment of the following:

a. An outline of the contents, main objectives of the plan or programme, and relationship with other relevant plans and programmes.

■ Covered in Chapters 1 and 3 and Appendix A.

b. The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme.

■ Covered in Chapters 3 and 4.

c. The environmental characteristics of areas likely to be significantly affected.

■ Covered in Chapter 3.

d. Any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC and 92/43/EEC.

■ Covered in Chapters 3 and 4.

e. The environmental protection, objectives, established at international, Community or national 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.

■ Covered in Chapter 3 and Appendix A.

f. The likely significant effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and

archaeological heritage, landscape and the interrelationship between the above factors. (Footnote: These effects should include secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects).

- Requirement will be met at a later stage in the SA process.

g. 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.

h. 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.

i. A description of measures envisaged concerning monitoring in accordance with Reg. 17.

- Requirement will be met at a later stage in the SA process.

j. A non-technical summary of the information provided under the above headings.

- Requirement will be met at a later stage in the SA process.

The report shall include the information that may reasonably be required taking into account current knowledge and methods of assessment, the contents and level of detail in the plan or programme, its stage in the decision-making process and the extent to which certain matters are more appropriately assessed at different levels in that process to avoid duplication of the assessment (Reg. 12(3)).

- This Scoping Report and the Environmental Reports will adhere to this requirement.

Authorities with environmental responsibility, when deciding on the scope and level of detail of the information which must be included in the environmental report (Reg. 12(5)).

- This SA Scoping Report will be published for consultation with the three statutory bodies (the Environment Agency, Historic England and Natural England) for a minimum of five weeks.

Authorities with environmental responsibility and the public, shall be given an early and effective opportunity within appropriate time frames to express their opinion on the draft plan or programme and the accompanying environmental report before the adoption of the plan or programme (Reg. 13).

- Public consultation on the Joint Strategic Plan and accompanying SA Reports will take place as the Plan develops.

Other EU Member States, where the implementation of the plan or programme is likely to have significant effects on the environment of that country (Reg. 14).

- The JSP is not expected to have significant effects on other EU Member States.

Provision of information on the decision:

When the plan or programme is adopted, the public and any countries consulted under Reg. 14 must be informed and the following made available to those so informed:

- the plan or programme as adopted;
- a statement summarising how environmental considerations have been integrated into the plan or programme and how the environmental report, the opinions expressed, and the results of consultations entered into have been taken into account, and the reasons for choosing the

plan or programme as adopted, in the light of the other reasonable alternatives dealt with; and

- the measures decided concerning monitoring.
- To be addressed after the JSP is adopted.

Monitoring of the significant environmental effects of the plan's or programme's implementation (Reg. 17).

- To be addressed after the JSP is adopted.

Quality assurance: environmental reports should be of a sufficient standard to meet the requirements of the SEA Regulations.

- This report has been produced in line with current guidance and good practice for SEA/SA and this section demonstrates where the requirements of the SEA Regulations have been met.

Structure of the Scoping Report

1.26 This chapter describes the background to the production of the JSP and the requirement to undertake SA and other assessment processes. The remainder of this Scoping Report is structured into the following sections:

- **Chapter 2** describes the other plans, policies and programmes of relevance to the SA of the JSP.
- **Chapter 3** presents the baseline information which will inform the assessment of the JSP.
- **Chapter 4** identifies the key environmental, social and economic issues in SW Hertfordshire of relevance to the emerging JSP and considers the likely evolution of those issues without its implementation.
- **Chapter 5** presents the SA framework that will be used for the appraisal of the JSP and the proposed method for carrying out the SA.

- **Chapter 6** presents an appraisal of the emerging Regulation 18 vision and objectives and alternative spatial growth scenarios presented within the JSP.
- **Chapter 7** describes the next steps to be undertaken in the SA of the JSP.

1.27 Appendix A sets out the international and national plans, policies and programmes which are of most relevance to the JSP.

Chapter 2

Policy Context for the Joint Strategic Plan

2.1 Schedule 2 of the SEA Regulations requires:

(a) “an outline of the contents and main objectives of the Plan and its relationship with other relevant plans or programmes” and

(e) “the environmental protection objectives established at International, Community or Member State level, which are relevant to the plan and the way those objectives and any environmental considerations have been taken into account during its preparation”

Outline of the SW Hertfordshire Joint Strategic Plan

2.2 The SW Hertfordshire JSP will provide a strategic policy framework for SW Hertfordshire to 2050. It will consider cross boundary issues and will set out high level policies for SW Hertfordshire. The JSP will cover the south west portion of the county of Hertfordshire, and will be prepared jointly by:

- Dacorum Borough Council.
- Hertsmere Borough Council.
- St. Albans City and District Council.
- Three Rivers District Council.
- Watford Borough Council.

2.3 The JSP is being prepared in partnership with Hertfordshire County Council, which has a key role given its responsibilities for the delivery of key infrastructure and services such as transport and education. It will also seek to address linkages to wider planning considerations.

2.4 In order to establish a clear scope for the SA it is necessary to review and develop an understanding of the environmental, social and economic objectives contained within international, national and local policies, plans and strategies that are of relevance to the JSP. Given the SEA Regulations requirements above, it is also necessary to consider the relationship between the JSP and other relevant plans, policies and programmes.

2.5 This chapter summarises the relationship of the JSP to the relevant international and national policies, plans and programmes which should be taken into consideration during preparation of the plan and its SA, as well as those plans and programmes which are of relevance at a County/sub-regional level. The objectives of these plans and programmes have been taken into account when drafting the SA framework in Chapter 5.

The Implications of Brexit

2.6 As of the end of January 2020 the UK has left the EU. As set out in the Explanatory Memorandum accompanying the Brexit amendments [See [reference 6](#)], the purpose of the Brexit amendments to the SEA Regulations is to ensure that the law functions correctly after the UK has left the EU. No substantive changes are being made by this instrument to the way the SEA regime operates.

2.7 Relevant international plans and policy (including those at the EU level) are transposed into national plans, policy and legislation and these have been considered.

Relationships with other relevant plans or programmes

2.8 The National Planning Policy Framework (NPPF) [See reference 7] provides the national policy context for the JSP and it must be consistent with the NPPF requirements for local plan making. The JSP will then provide the spatial planning framework that will set the context for a future round of Local Plans to be prepared by the five SW Hertfordshire councils. This approach will allow those authorities to subsequently establish detailed planning policies and site allocations at a borough and district level. In doing so, it will also help to set the SW Hertfordshire planning policy framework for the preparation of neighbourhood local plans at the local community level. Other relevant national policies and plans are outlined in Appendix A.

2.9 Relevant plans and initiatives at the County and area level include:

Hertfordshire Local Transport Plan 2018 - 2031

2.10 The Hertfordshire Local Transport Plan 2018 - 2031 [See reference 8] sets out how transport can help deliver a positive future vision for Hertfordshire by having a major input into wider policies such as economic growth, meeting housing needs, improving public health and reducing environmental damage whilst also providing for safe and efficient travel. The plan also considers how future planning decisions and emerging technology might affect the way that transport needs to be provided in the longer term.

Hertfordshire's Rail Strategy

2.11 The Hertfordshire Rail Strategy [See reference 9] aims to demonstrate how the railway in Hertfordshire can support economic growth and development. The strategy sets out overall aspirations for the rail network in

Hertfordshire from improvements to local to long-distance services to achieving net zero emissions from all forms of transport by 2050.

South West Hertfordshire Growth and Transport Plan Prospectus

2.12 The Growth and Transport Plan (GTP) [See reference 10] is a new approach to sub-county transport planning. This report is the first of a suite of new GTPs which will cover different sub-areas of Hertfordshire with the intention of promoting modal shift to non-motorised and public transport, providing greater modal choice, and facilitating growth sustainably. The Plan sets out seven objectives to address the transport challenges across SW Hertfordshire.

South Central Hertfordshire Growth and Transport Plan

2.13 The Growth and Transport Plan (GTP) [See reference 11] sets out a vision and objectives for the south-central area of Hertfordshire with an emphasis on a connected, reliable and accessible transport network for the area.

Hertfordshire Public Health Service Strategy (2017-2021)

2.14 The Hertfordshire Public Health Service Strategy (2017- 2021) [See reference 12] outlines the Council's vision and principles for improving the health and wellbeing of people in Hertfordshire.

Hertfordshire Adult Mental Health Strategy (2016-2021)

2.15 The Hertfordshire Adult Mental Health Strategy (2016-2021) [See reference 13] outlines the steps that need to be taken to ensure that people in

Hertfordshire can manage their own mental health and well-being, access treatment and help when they need it and recover, with support if required, and maximise the independence of Hertfordshire's residents.

Hertfordshire County Active Travel Strategy

2.16 The Hertfordshire County Council (2013) Active Travel Strategy [[See reference 14](#)] sets out how the County Council and its partners will identify, deliver and promote interventions to increase the number of people walking and cycling in Hertfordshire.

Hertfordshire's Recovery Plan, 2020

2.17 Hertfordshire's Recovery Plan 2020 [[See reference 15](#)] outlines the short- and medium-term economic effects of the Covid-19 pandemic and defines recovery actions. The plan is structured around three main Delivery Packages:

- Enterprise and Innovation.
- Skills and Creativity.
- International Trade and Investment.

Perfectly Placed for Business Strategic Economic Plan 2017 - 2030

2.18 The Perfectly Placed for Business Strategic Economic Plan: 2017-2030 [[See reference 16](#)] outlines four key economic strategies for Hertfordshire, reflecting the changes to the wider political landscape and the uncertainties surrounding the UK's departure from the European Union for the County:

- Priority 1: Maintaining global excellence in science and technology.
- Priority 2: Harnessing Hertfordshire's relationships with London and elsewhere.

- Priority 3: Reinvigorating our places for the 21st Century.
- Priority 4: Foundations for growth.

Hertfordshire Air Quality Strategy

2.19 The Hertfordshire Air Quality Strategy [See reference 17] includes the County Council's strategic vision, aims and objectives for improving air quality for Hertfordshire. The aims are as follows:

- To gain a stronger understanding of the air quality issues within Hertfordshire.
- To ensure that air quality is an integral part of everything that the County Council do.
- To develop a productive relationship with partners, in particular the District and Borough Councils, to achieve positive air quality outcomes.
- To create clear leadership on air quality
- To establish a coherent workstream on air quality, including clarification on roles and responsibilities.

Sustainable Hertfordshire Strategy

2.20 Following the County's Climate Emergency Declaration in July 2019, Hertfordshire County Council committed to developing a Sustainable Hertfordshire Strategy [See reference 18] that sets out the initial policies and strategies needed to embed sustainability across all Council operations and services and throughout the county. The strategy covers areas such as energy and carbon, climate change and flooding, biodiversity and air quality.

National and International

2.21 At the international level, there is a wide range of plans and programmes which act to inform and shape national level legislation. Planning policy in England at a national and local level (i.e. the NPPF, the JSP and the individual authorities' Local Plans) should be aware of and in conformity with the relevant legislation. The main sustainability objectives of international plans and programmes which are of most relevance for the JSP and the SA are included in **Appendix A**.

Chapter 3

Baseline Information

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

3.2 The baseline information presented in the most recent SA Reports for each district and borough's Local Plan (listed below) has been drawn on to prepare this chapter (supplemented by more up to date sources as appropriate, which are referenced individually):

- Dacorum Borough Council – Interim SA Report for the Dacorum Local Plan (2020 – 2038) Emerging Strategy for Growth (November 2020) **[See reference 19]**
- Hertsmere Borough Council – SA report for the Draft Local Plan (October 2021) **[See reference 20]**
- St Albans City and District Council – SA Scoping Report for the St Albans City and District Local Plan 2020 to 2038 (January 2021) **[See reference 21]**
- Three Rivers District Council – Interim SA Report for the Regulation 18 Preferred Policy Options and Sites **[See reference 22]**
- Watford Borough Council – SA report for the Watford Final Draft Local Plan (January 2021) **[See reference 23]**

Climate Change Mitigation and Adaptation

3.3 Climate change presents a global risk, with a range of different impacts that are likely to be felt within SW Hertfordshire across numerous receptors. The 2018 Intergovernmental Panel on Climate Change (IPCC) identified a reduced

timeframe to act to keep world temperature rises to 1.5 degrees Celsius before 2050 in line with the Paris Agreement [\[See reference 24\]](#).

3.4 Planning has a significant role to play in mitigating the effects of and adapting to the inevitable impacts of climate change. In the past this has focussed on reducing the need to travel but in the future buildings will need to be more energy efficient, use decentralised, low carbon or renewable energy sources and be designed and located to be resilient to more extreme weather events and increased risk of flooding. It should also be recognised that climate change is a cross cutting issue that can contribute to increasing the significance of effects related to other sustainability issues. Defra's 25 Year Environment Plan aims to improve the global environment by providing international leadership in tackling climate change.

3.5 Changes to the climate will bring new challenges to SW Hertfordshire's built and natural environments. Climate change estimates (at the 50% probability level) for the East of England between 2080 to 2099, based on medium emissions scenarios, predict an increase in winter mean temperature of approximately 2.5 degrees Celsius and an increase in summer mean temperature of approximately 3.8 degrees Celsius [\[See reference 25\]](#) Furthermore, winter mean precipitation is predicted to increase by 16% and summer mean precipitation is predicted to decrease by 27%.

3.6 Urban growth can contribute to the urban heat island effect. This is due to the land surfaces in towns and cities, which are made of materials like tarmac and stone, which absorb and store heat, that coupled with concentrated energy use and less ventilation than in rural areas, creates a heating effect [\[See reference 26\]](#). With an expected increase in population in SW Hertfordshire, urban heat island effect becomes an increasing stressor on the towns and cities.

3.7 Successfully adapting to climate change involves understanding the risks and quantifying the likely impacts, so that informed decisions can be taken about the costs and benefits of reducing those risks. Taking the impacts of a changing climate into account in all short, medium and long term planning is an

investment to save money. Actions to increase resilience help to maximise the capacity of all to adapt. Adaptation plans need to be kept under regular review as adaptation will become increasingly important if appropriate mitigation is not put in place in time [\[See reference 27\]](#)

3.8 Hertfordshire County Council (HCC) declared a climate emergency in July 2019. Each of the councils within SW Hertfordshire have also declared climate emergencies. Following on from this, HCC developed a Sustainable Hertfordshire Strategy which sets out initial policies and strategies needed to embed sustainability throughout the county. Furthermore, in January 2020, the Hertfordshire Climate Change and Sustainability Partnership was formed with the aim of co-ordinating positive climate action across the county. Additionally, the Hertfordshire Energy Strategy (2019) set a goal of reducing carbon dioxide emissions to 80% of those in 2012/13 by 2025, with a longer-term ambition of achieving ‘net zero’.

3.9 Table 3.1 sets out the per capita carbon dioxide emissions from each of the SW Hertfordshire authorities for 2019 and shows that the highest total emissions were from Hertsmere Borough. However, St Albans City and District has the highest transport emissions compared to the rest of SW Hertfordshire.

Table 3.1: Carbon dioxide emissions 2019 [\[See reference 28\]](#)

Borough/ District	Industry (kt CO2)	Commercial (kt CO2)	Public Sector (kt CO2)	Domestic (kt CO2)	Transport (kt CO2)	Total (t CO2 per person)
Dacorum	40.6	80.8	23.8	224.4	269.5	4.0
Hertsmere	46.4	65.3	16.2	164.7	354.3	6.1
Three Rivers	24.8	39.0	11.7	151.2	308.9	5.7
Watford	26.3	62.5	15.7	125.4	95.2	3.4
St Albans	32.6	57.4	13.8	230.5	534.9	5.8

3.10 The Green Alliance Trust has estimated the capacity for renewable energy generation across England and Wales for 348 local authorities. Out of the Boroughs and Districts within SW Hertfordshire, Dacorum has ranked highest in terms of renewable energy capacity and generation (**Table 3.2**).

Table 3.2: Renewable Energy Generation and Capacity [See reference 29]

Borough/District	Capacity (MW)	Rank	Generation (MWh)	Rank
Dacorum	21.8	184	23,789	244
St Albans	7.1	286	10,370	290
Watford	3.1	327	6,424	309
Three Rivers	3.2	325	5,044	316
Hertsmere	3.1	329	4,585	321

3.11 There are currently three commercial renewable energy facilities within SW Herts, in Three Rivers and Hertsmere. The RES wind facility at Kings Langley which has a capacity of 0.23MW and the co-firing biomass fossil facility at Maple Cross which has a capacity of 2.88MW are both located within the Three Rivers. Therefore, there is 3.11MW of installed commercial renewable energy capacity in Three Rivers [See reference 30]. There is also a solar farm within Potters Bar, Hertsmere which has a capacity of 5.0MW [See reference 31].

3.12 Communities and governments around the world must adapt and plan in the face of climate uncertainty, as it is not possible to know the exact extent to which our climate will change. Adaptation and mitigation plans must incorporate the full range of climate risks, take account of uncertainty over timing and severity and build climate resilience [See reference 32].

Flood Risk

3.13 Development within high flood risk areas, or the loss of greenfield land to development, could contribute to increased flood risk. Properties outside the floodplain are also susceptible to flooding due to an increase in surface water runoff and large development sites outside the floodplain may exacerbate surface water flooding issues further without appropriate mitigation. However, mitigation may be achieved through the incorporation of Sustainable Drainage Systems (SuDS) into the new development.

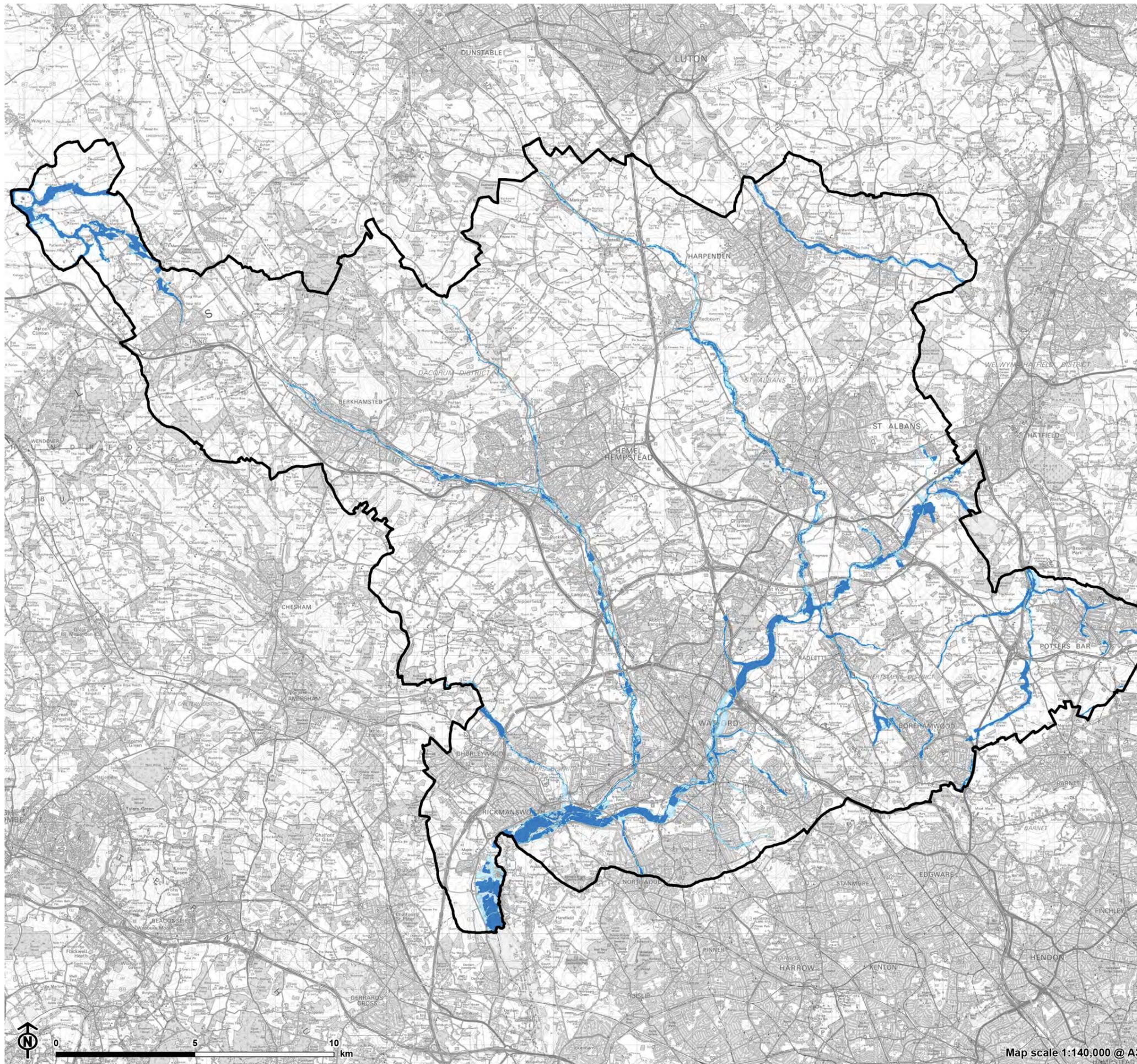
3.14 In Hertfordshire the main surfaces of flood risk are surface water, rivers and other watercourses (fluvial) and, less frequently, groundwater. The areas most at risk of surface water flooding are predominately within SW Hertfordshire, especially surrounding Watford. Surface water flooding is caused when local drainage capacity and infiltration is unable to cope with the volume of water experience during periods of sustained or heavy rainfall. The estimated numbers of properties for each SW Hertfordshire district/borough likely to be affected during a 1 in 30 year rainfall event and a 1 in 100 year rainfall event are shown in **Table 3.3** below. The risk of surface water flooding in the county is likely to increase as the extent of built-up areas and the area of impermeable surfaces increase.

Table 3.3: Number of properties shown to be at risk of surface water flooding [See reference 33]

Local Authority	1 in 30 (3.33% AEP)	1 in 100 (1% AEP)
Dacorum	4,188	8,213
St. Albans	3,667	7,661
Watford	2,167	4,886
Three Rivers	2,452	4,868
Hertsmere	3,347	6,665

3.15 Across the entire area of SW Hertfordshire, 3.6% falls within Flood Zone 2 and 2.7% falls within Flood Zone 3. These areas are shown in **Figure 3.1** below. Climate change is forecast to result in milder and wetter winters and more storms in summer months. Changes in farming practices can exacerbate overland flow due to the removal of hedgerows and trees and the issue is likely to become increasingly important due to climate change. Further development pressure will increase the pressure on existing sewer systems effectively reducing their capacity, leading to more frequent flooding.

Figure 3.1: Flood Risk (Flood Zones 2 and 3)



- South West Hertfordshire
- Flood Zone 3
- Flood Zone 2

Population, Health and Wellbeing

3.16 SW Hertfordshire lies within the East of England, see **Figure 1.1**. The area is divided between five local planning authorities: Dacorum, Hertsmere, St. Albans, Three Rivers and Watford. The majority of the population of the area is spread across the following areas:

- Hemel Hempstead
- Watford
- St. Albans
- Rickmansworth
- Harpenden
- Radlett
- Borehamwood

3.17 Watford has the highest population density out of the five authorities.

3.18 The latest population forecasts for SW Hertfordshire predicts an increase in the number of residents of 16,645 between 2018 and 2040 as shown in **Table 3.4**, with the largest percentage increase of 6.5% expected in Dacorum.

Table 3.4: Projected growth in total resident population 2018 to 2040 [See reference 34]

District/Borough	2018	2040	% change
Dacorum	154,280	164,343	6.5
St. Albans	147,373	148,580	0.8
Watford	96,767	97,523	0.8
Three Rivers	93,045	93,739	0.7

District/Borough	2018	2040	% change
Hertsmere	104,205	108,130	3.7

3.19 Hertsmere has a higher than the area average proportion of those aged over 75 years, 6%, and this trend is predicted to continue. In 2019, those aged 65 and over represented 16.8% of SW Hertfordshire’s population. This is predicted to rise to 22.7% by 2041. An ageing population will increase demands for different types of housing as well as accessible healthcare and local facilities.

Health

3.20 There are a wide range of leisure, cultural and recreation facilities throughout SW Hertfordshire.

3.21 SW Hertfordshire tends to be relatively healthy compared with other parts of the country. The majority of the area has above average life expectancy compared to the rest of England; however Watford is below the England average as shown in **Table 3.5** below.

Table 3.5: Life expectancy in SW Hertfordshire [See reference 35]

Life expectancy	England	Dacorum	Three Rivers	St. Albans	Watford	Hertsmere
Males	79.6	81.4	81.5	82.0	79.1	81.0
Females	83.2	84.3	84.0	85.3	82.7	84.0

3.22 Open space and sports and recreation facilities in SW Hertfordshire provide residents with space in which they can undertake physical activity to the

benefit of public health. The UK Chief Medical Officers advise that for good physical and mental health, adults should aim to be physically active every day. Over the course of a week adults should accumulate at least 150 minutes of moderate intensity activity; or 75 minutes of vigorous intensity activity day; or even shorter durations of very vigorous intensity activity; or a combination of moderate, vigorous and very vigorous intensity activity [See reference 36].

3.23 Hertfordshire contains a lower than average proportion of physically active adults (65.4% compared to 66.3% national average) and a very slightly higher than average proportion of adults over 18 with excess weight (62.1% compared to the national average of 62.%) [See reference 37]. Out of the five planning authorities within SW Hertfordshire, Watford is the only authority that is below the national average for physically active adults (60.5% compared to that national average 66.3%) and is above the national average for adults who are overweight with 67% compared to 62% nationally.

Access to green space

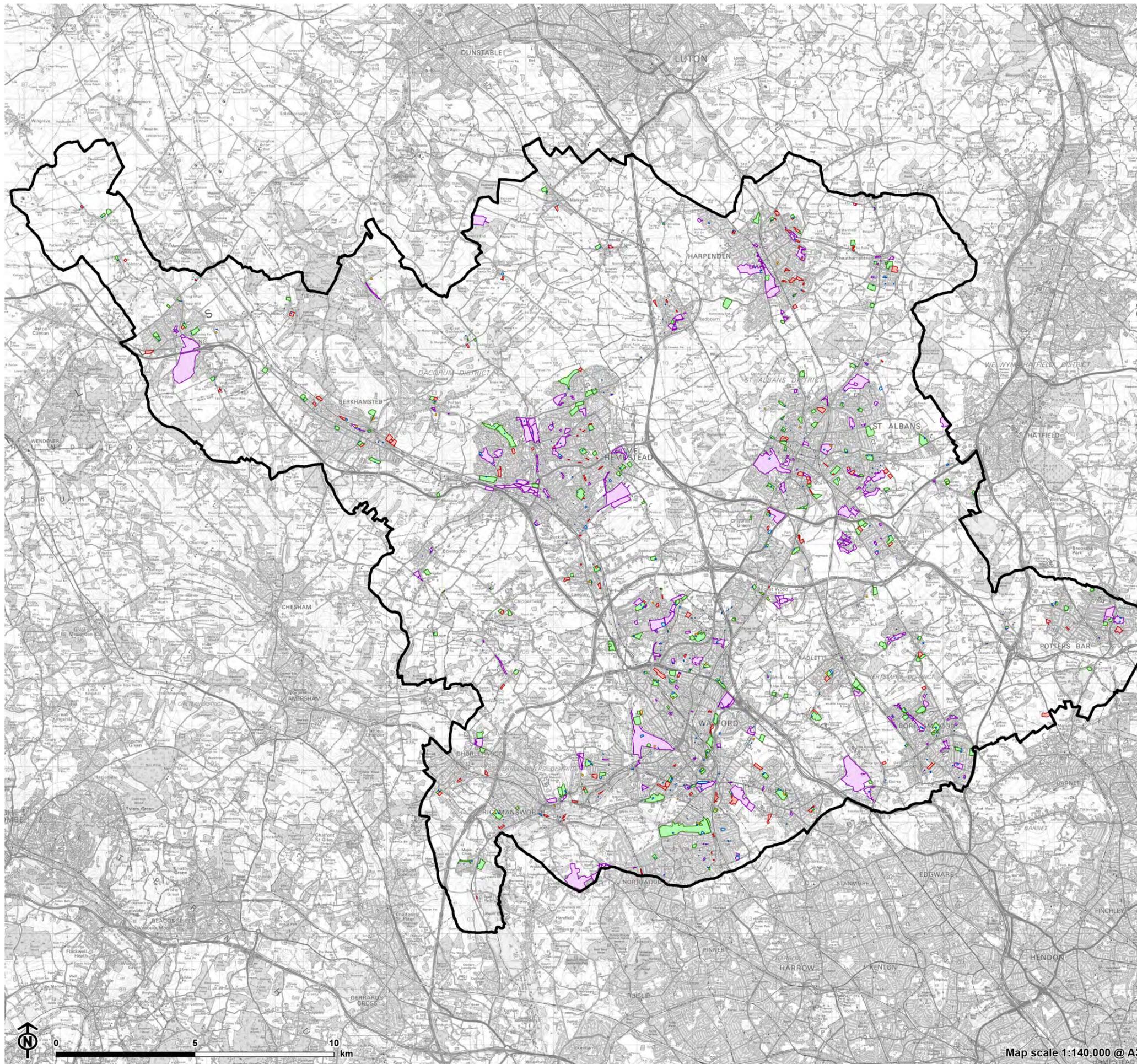
3.24 Access to the countryside via rights of way can provide an important recreation resource. Hertfordshire has a rich green infrastructure network encompassing parts of the Chilterns AONB, river valleys, chalk grasslands, farmlands, ancient woodland, designated historic landscape and parklands and urban greening assets. Part of the Chilterns AONB falls within SW Hertfordshire with the majority falling within Dacorum.

3.25 The Heartwood Forest, located within St. Albans, is the largest continuous new native forest in England. The Forest is 347-hectares which is made up of new and ancient woodland and has a network of paths, including a public footpath and two bridleways. The Colne Valley Regional Park also runs into Rickmansworth covering 43 square miles. Both of these green spaces are essential parts of SW Hertfordshire's green infrastructure network and provide a wide variety of benefits. However, the Regional Park in particular suffers from being poorly served by transport links.

3.26 An assessment of available green spaces within Hertfordshire against Natural England's Accessible Natural Greenspace Standards (ANGSt) concluded that the main areas of deficiency are within Hertsmere as it does not meet the ANGSt standards. However, Watford also has below average provision of accessible natural greenspace. There is a relatively high proportion of accessible natural greenspace within St Albans District. However, Ashridge, within Dacorum Borough, is the closest 500ha accessible natural greenspace. Dacorum and Three Rivers have the largest proportion of accessible natural greenspace provision throughout Hertfordshire. Green links to the west of the County could help alleviate deficiencies in greenspace elsewhere [See [reference 38](#)]. Linking many of the existing recreational routes (e.g. Hertfordshire Way and Chilterns Way) could serve to create an integrated network of green corridors providing easy access to many of the County's green infrastructure assets. Figure 3.2 below shows all of the accessible green spaces within SW Hertfordshire.

3.27 Three Rivers, Dacorum, Hertsmere, St Albans and Watford have all conducted their own Green Infrastructure Strategies, prepared in 2011 and 2012 (a new Green Infrastructure Strategy for Hertfordshire is currently being prepared). New and existing development has the potential to create additional green infrastructure or destroy the existing network, therefore affecting the area's resilience to climate change, biological and ecological networks and the health and wellbeing of residents.

Figure 3.2: Accessible Greenspace within South West Hertfordshire



-  South West Hertfordshire
-  Allotments Or Community Growing Spaces
-  Bowling Green
-  Play Space
-  Playing Field
-  Public Park Or Garden

Housing

3.28 The South West Hertfordshire Local Housing Needs Assessment (LHNA) [See reference 39] considers housing need in the South West Hertfordshire Housing Market Area (HMA). The HMA comprises the five local planning authorities within the area.

3.29 The National Planning Policy Framework in February 2019 introduced a new Standard Method for assessing local housing need. It draws on 2014 - based household projections and increases the local housing need based on local affordability. However, the new method is subject to review as part of the expected changes to the planning system due to be announced later this year. The average workplace-based mean affordability ratio in the HMA is 13.9, when using the prescribed formula, the local affordability ratio results in an average uplift of 61%. This means the latest local housing need projection for the area, as set out in the Local Housing Needs Assessment, has increased from 2,888 dwellings to 4,043 dwellings per annum from the period 2020 to 2030. If 4,043 dwellings per annum are provided this would likely result in an additional 122,682 people in the area, over the period 2020-2036, likely to be divided as follows:

- Dacorum: 31,724
- Hertsmere: 21,765
- St. Albans: 26,128
- Three Rivers: 18,294
- Watford: 24,771

3.30 In terms of housing mix, the LHNA recommends that the majority of market housing should be 3 or more bedrooms, whereas 1, 2 and 3 bedroom properties are more in demand for affordable homes (both to buy and to rent).

3.31 House prices in the area are impacted by its proximity to London, being, 82% above the national average, 13% above the county and just 7% below London's 2020 housing values. Over the last 20 years, housing values within

SW Hertfordshire have grown above both the national and regional equivalents but just below London's growth. As such, there are affordability pressures across the area.

Equalities

3.32 The Equality Act 2010 identifies nine 'protected characteristics' and seeks to protect people from discrimination on the basis of these characteristics. It presents three main duties: to eliminate discrimination, harassment, victimisation and other conduct that is prohibited under the Act; to advance equality of opportunity between persons who share relevant protected characteristics and persons who do not share it; and to foster good relations between persons who share a relevant protected characteristic and persons who do not share it. The nine protected characteristics identified through the Act are:

- Age;
- Disability;
- Gender reassignment;
- Marriage and civil partnership;
- Pregnancy and maternity;
- Race;
- Religion and belief;
- Sex; and
- Sexual orientation.

3.33 The potential effects of the plan on these nine 'protected characteristics' will be assessed separately to the SA. This work will comprise the Equalities Impact Assessment (EqIA) which will be presented in an appendix to the SA.

3.34 While socio-economic status is not a characteristic protected by the Equality Act 2010, the Council is committed to also considering the effects that the plan will have in this sense. The EqIA will therefore also consider the

potential effects on socio-economic groups not limited to but including the following:

- People on low incomes;
- Young and adult carers;
- People living in deprived areas/rural areas; and
- Groups suffering multiple disadvantages.

3.35 The population of SW Hertfordshire in mid-2020 was 600,834 compared to 565,499 in the 2011 Census. The population in the mid-2020s was 307,169 (51%) females and 293,665 (49%) males [See reference 40].

Age

3.36 The median age for SW Hertfordshire’s population based on mid-2020s figures was 40.5 years. For the 10-year period starting in mid-2010 there was an increase in average age of 1.3 years from 39.2 years. The median age for SW Hertfordshire’s population in the mid-2020 was slightly higher than the median age for both the UK (39.7 years) and for the county of Hertfordshire as a whole (39.7 years). Based on the latest figures, the age profile for SW Hertfordshire was broadly similar to that for England as a whole although as a proportion there were slightly more people in Hertfordshire aged 65 and older than in the national population. A more detailed breakdown of the estimated age makeup of the population for SW Hertfordshire in 2020 is provided in **Table 3.6** below.

Table 3.6: Estimated breakdown of SW Hertfordshire’s 2020 population by age group [See reference 41]

Age Group	Male	Female	Total
19 and younger	79,291	74,982	154,273
20-34	48,484	50,412	98,896

Age Group	Male	Female	Total
35-49	63,277	67,786	131,063
50-64	56,656	57,744	114,400
65 and older	45,957	56,245	102,202

3.37 It is expected that the ratio of those residents who are state pension age or older compared to those of working age will increase in the future throughout the UK. SW Hertfordshire has a similar old age dependency ratio (273.4) compared to Hertfordshire (274.8) - this indicates the number of people of state pension age per 1,000 people of working age. In SW Hertfordshire, this figure is expected to rise to 348 by 2043, while the Hertfordshire figure is expected to increase to a similar figure of 345.3 by this time [\[See reference 42\]](#).

Disability

3.38 The 2011 census presented figures on people with disabilities in the UK. Within SW Hertfordshire, the proportion of population reporting a disability that limits them a lot in their activities is as follows for each of the five local authorities: Dacorum (13.1%), Hertsmere (13.3%), St Albans (11.2%), Three Rivers (12.2%) and Watford (15%). The proportion of SW Hertfordshire’s population who were reported as being 'limited a lot' is below the average for England and Wales of 17.9% in all five districts [\[See reference 43\]](#).

Marriage and Civil Partnership

3.39 Based on the 2011 Census data, 37.3% of Hertfordshire’s population was married or in a same-sex civil partnership, with a further 9.8% cohabitating. 36.6% of the population was single and 9.7% were lone parents with dependant or non-dependant children. The remaining 6.5% of the population falls within other household types [\[See reference 44\]](#).

Pregnancy and maternity

3.40 In recent years, the number of births in the UK has decreased along with the fertility rate. For the fifth consecutive year, the number of live births in 2020 for England and Wales decreased to 613,936, the lowest since 2002. In 2020 there were 6,710 live births within SW Hertfordshire. Of these, 3,149 were to non-UK born mothers [See reference 45]. The average age of mothers at childbirth in 2020 remained the same as 2019, at 30.7 years following a gradual increase since 1973. The average fertility rate for SW Hertfordshire is 1.73 children per woman [See reference 46].

Race

3.41 The ONS publishes detailed population estimates by ethnic group for areas in England and Wales following each census. However, there are currently no reliable population estimates by ethnic group available at the local authority level for the years between censuses. Therefore, the most recent census data presents the most reliable overview of the likely ethnic makeup of SW Hertfordshire. 19.2% of Hertfordshire residents in 2011 were from an ethnic minority, equating to 214,056 residents. **Table 3.7** below shows the broad ethnic makeup within the five local authorities that comprise SW Hertfordshire.

Table 3.7: Broad Ethnic Makeup (%) of SW Hertfordshire

Area	Asian/ Asian British	Black/ African/ Caribbean /Black British	Mixed/ multiple ethnic groups	Other ethnic group	White
Dacorum	4.7%	2.1%	2.1%	0.3%	90.8%
Hertsmere	7.4%	3.9%	2.6%	1.0%	85.0%
St Albans	6.4%	1.7%	2.8%	0.7%	88.4%

Area	Asian/ Asian British	Black/ African/ Caribbean /Black British	Mixed/ multiple ethnic groups	Other ethnic group	White
Three Rivers	9.2%	1.8%	2.3%	0.5%	86.2%
Watford	17.9%	5.8%	3.4%	0.9%	71.9%

3.42 A significant majority of Hertfordshire’s resident population in 2011 (83.9% or 936,681 residents) were born in England. 3.7% (41,101) of the population were born in an EU country and 8.6% (96,025) of the population were born in a non-EU country [See reference 47].

3.43 Migration figures for SW Hertfordshire show that the area has experienced a small net inflow of both internal and international migration during most years from 2010 to 2020 (the exception being international migration for the period mid-2011 to mid-2012 when a small net outflow was experienced). Generally, internal migration outweighs international migration. During the most recent reporting period (mid-2019 to mid-2020) the inflow of long-term international migration was recorded as 3,220 individuals and the outflow was recorded as 2,755 individuals across SW Hertfordshire. During the same period the inflow of internal migration was recorded as 35,317 individuals and the outflow was recorded as 34,432 individuals [See reference 48].

Religion

3.44 In 2018 the majority of SW Hertfordshire’s total population (50%) considered themselves to be Christian. Those who reported to have no religion accounted for 36% of residents. A further 12% of residents were reported to follow other religions, with Hindu being the largest group (5% of residents). These figures demonstrate that for the five-year period beginning in 2013, the number of residents reporting to have no religion grew (from 184,800 to 217,397 residents) and the number of residents recorded as Christian fell slightly (from 309,272 to 297,625 residents). The breakdown of religion by the

five local authority areas within SW Hertfordshire is shown in **Table 3.8** below [See reference 49].

Table 3.8: Number of people following a religion in 2018

	Dacorum	Hertsmere	Three Rivers	Watford	St. Albans
No Religion	60,364	25,551	41,936	27,784	61,762
Christian	79,609	49,869	39,007	49,704	79,436
Buddhist	-	*	*	2,341	*
Hindu	4,127	6,352	5,266	10,352	2,558
Jewish	*	15,948	1,852	-	*
Muslim	5,483	3,145	2,628	6,316	1,535
Sikh	-	-	1,436	-	-
Other Religion	1,464	1,784	-	*	*

* Sample size too small to provide reliable estimates.

- No figures to report.

3.1 There is little baseline information available that is directly relevant to other protected characteristics under the Equality Act, including gender reassignment and sexual orientation.

Social Inclusion and Deprivation

3.2 The English Indices of Deprivation of 2019 (IMD) is a measure of multiple deprivation in small areas or neighbourhoods, Lower Layer Super Output Areas (LSOA) to measure deprivation at local authority and county level. The seven distinct domains of deprivation: Income; Employment; Health Deprivation and

Disability; Education and Skills Training; Crime; Barriers to Housing and Services; and Living Environment. Each domain contains a number of indicators. The seven domains are combined to give a multiple deprivation score. There are 32,844 LSOAs nationally.

3.3 In 2019, the following rankings for overall deprivation were given to the five local authorities within Hertfordshire: Dacorum (240 out of 317); Three Rivers (291 out of 317); St Albans (306 out of 317); Watford (195 out of 317); and Hertsmere (224 out of 317) (1 being the most deprived). SW Hertfordshire overall performs particularly strongly in terms of measures relating to income, employment, education skills and training, health and disability, income deprivation affecting children and income deprivation affecting older people. The area performed less favourably in relation to barriers to housing and services and crime [\[See reference 50\]](#). Although the area is generally prosperous, there are pockets of deprivation, mostly focused within the larger centres of Watford, Hemel Hempstead and Borehamwood.

3.4 Three Rivers is one of the 20% least deprived districts/unitary authorities in England. 22 out of 53 LSOAs (42%) fall within the 10% least deprived areas. Only one LSOA (Three Rivers 012D) falls within the 20% most deprived areas. In relation to living environment, 42 out of 53 LSOAs (79%) fall within the least deprived areas [\[See reference 51\]](#). However, about 9.7% (1,620) children live in low-income families [\[See reference 52\]](#). Within Three Rivers, it was estimated that 4,053 out of 37,918 households were fuel poor in 2019, which equates to 10.7% of all households [\[See reference 53\]](#).

3.5 In 2019, Watford had four out of 53 LSOAs within the 20 - 30% most deprived areas while 33 out of 53 LSOAs fell within the least deprived areas. About 11.5% (2,305) children lived in low-income families. Since 2015, the number of LSOAs within the most deprived in relation to crime has increased from 18 to 35 in 2019. Within Watford, it was estimated that 5,417 out of 39,453 households were fuel poor in 2019, which equates to 13.7% of all households. Watford has the highest rate of fuel poverty in SW Hertfordshire.

3.6 St Albans is one of the 20% least deprived districts/unitary authorities in England. There is only one LSOA (St Albans 009A) in St Albans that falls within the 30% most deprived areas. 23 areas within St Albans are in the 10 - 30% most deprived in relation to barriers to housing and services. Approximately 44% of LSQA (38 out of 87) fall within 10% least deprived areas. About 8.5% (2,355) children live in low-income families. Within St Albans, it was estimated that 5,623 out of 60,507 households were fuel poor in 2019, which equates to 9.3% of all households.

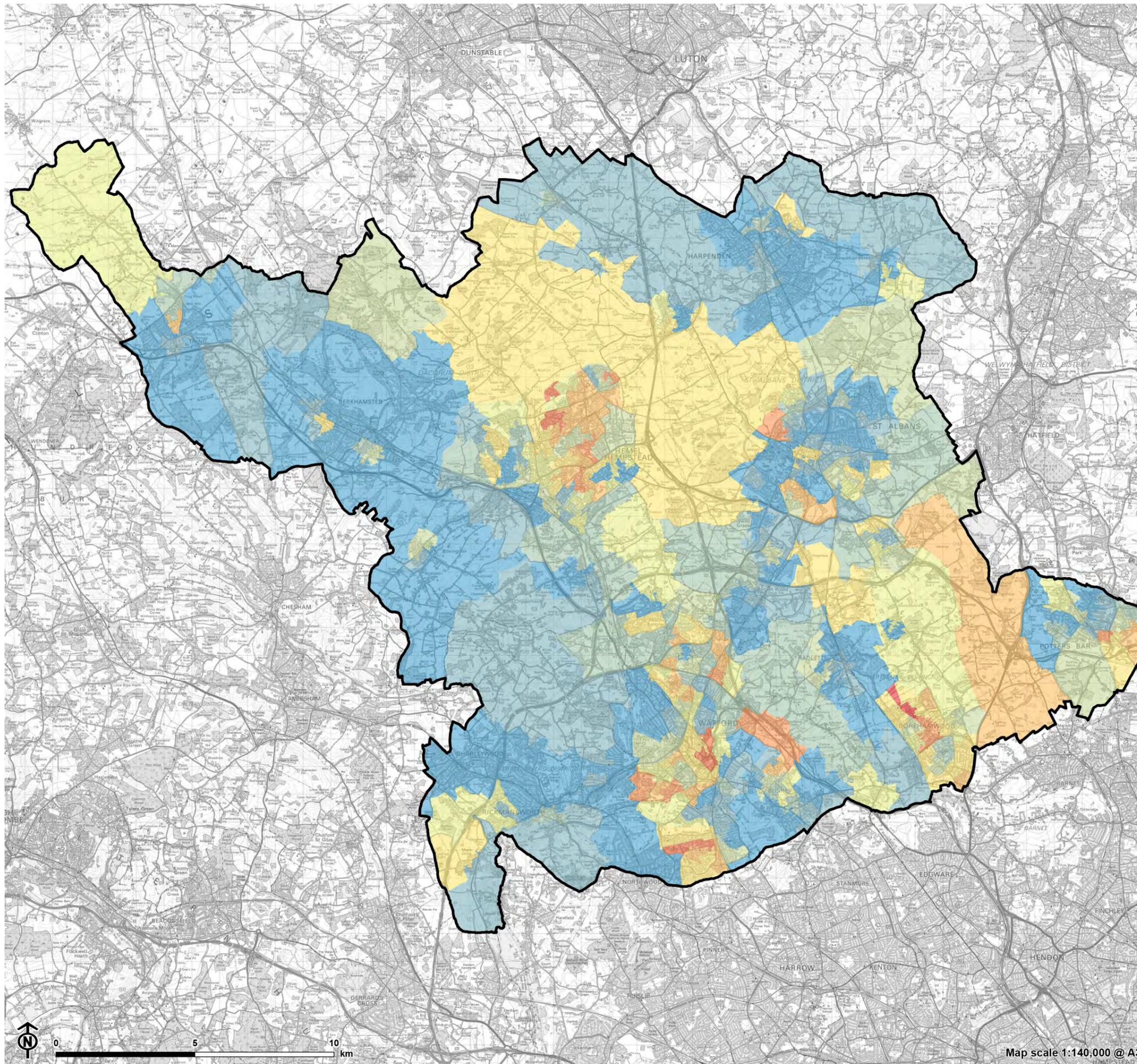
3.7 The majority of Hertsmere lies within the least deprived areas, with 19% of LSOAs falling within 10% least deprived. There is one LSOA (Hertsmere 006C within Borehamwood Cowley Hill ward) that lies within the 10% most deprived. Hertsmere performs relatively poorly in relation to barriers to housing and services with 51 out of 62 LSOAs (82%) falling within the most deprived areas. This may be due to Hertsmere's more rural setting. About 11.9% (2,380) of children live in low-income families. Within Hertsmere, it was estimated that 4,537 out of 42,914 households were fuel poor in 2019, which equates to 11.0% of all households.

3.8 Within Dacorum, only three LSOAs lie within the 20% most deprived areas. The majority of LSOAs (72%) are less deprived, with 24 LSOAs falling within the 10% least deprived domain. Dacorum ranks highest in relation to living environment with 68% of LSOAs falling within the least deprived. Crime is ranked the highest, however, with the majority of LSOAs falling within the most deprived. About 12.3% (3,450) children live in low-income families. Within Dacorum, it was estimated that 7,095 out of 64,610 households were fuel poor in 2019, which equates to 10.7% of all households.

3.9 New development near to deprived neighbourhoods can help to stimulate regeneration in those areas. Therefore, the location of the JSP growth types in relation to the most deprived neighbourhoods could influence the extent to which they can have positive effects on those areas. **Figure 3.3** shows the Indices of Multiples Deprivation for SW Hertfordshire.

3.10 Further information regarding unemployment levels and income is provided in the Economy section.

Figure 3.3: Index of Multiple Deprivation (IMD)



South West Hertfordshire

IMD Decile

- 1 (Most deprived)
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10 (Least deprived)

Educational Attainment

3.11 The quality of schools within the area is generally very good. In SW Hertfordshire, as of January 2017, only 2,143 pupils (out of a total of 48,868) are reported to attend primary schools that have been rated as 'requiring improvement' or 'inadequate' by Ofsted. Only 1,900 pupils (out of a total of 33,703) are reported to attend secondary schools that have been rated as 'requiring improvement' or 'inadequate' by Ofsted.

3.12 The percentage of pupils reaching the expected standard in relation to attainment of primary pupils at Key stage 2 in reading, writing and mathematics for SW Hertfordshire is higher than the England average of 54%. The averages for the five local authorities are: Dacorum (57%), Hertsmere (56%), Three Rivers (62%), Watford (59%) and St Albans (68%).

3.13 Pupils in SW Hertfordshire perform more favourably than the national average for Attainment 8 scores for English and Mathematics. For English, the average score for SW Hertfordshire in 2015/16 was 11.4 compared to the national average of 10.6, while for Mathematics the average score for the area was 11 compared to the national average of 9.8.

3.14 SW Hertfordshire also reported a higher percentage (72.8%) of pupils attaining grades A to C in both English and Mathematics than the English average (63.3%) for the same period [\[See reference 54\]](#).

Economy

3.15 At a county level, the Local Industrial Strategy (2019) [\[See reference 55\]](#) sets out the economic priorities for the county and builds on Hertfordshire's Strategic Economic Plan [\[See reference 56\]](#). The Strategic Economic Plan for Hertfordshire sets out actions based around four priorities for the county: maintaining global excellence in science and technology, harness relationships with London and elsewhere, reinvigorate Hertfordshire's places for the 21st

Century and create foundations for long-term growth. Further to this, Hertfordshire's Clean Growth Strategy [See reference 57] sets out how it aims to support a transition to clean growth across the county. One action set out to achieve this will be by developing the green economy through the growth of the Low Carbon Environmental Goods and Services sector.

3.16 The SW Hertfordshire economy has grown since 2011 with the growth of real gross value added (GVA) by around 4% per year [See reference 58]. The key sectors that are present in SW Hertfordshire are the life sciences, advanced engineering/manufacturing, agri-science and agri-tech, sustainable construction and creative industries (film, TV, digital sectors). A number of international businesses' headquarters are located within the area.

3.17 At the county level, residents have a far higher level of earning than the national average. The earnings are higher for residents than by workplace, reflecting the fact that many people commute into London to access higher paid jobs. In broad terms, out-commuters from Hertfordshire tend to be better qualified than in-commuters into the county [See reference 59].

3.18 As of 2017, at a county level, there are 58,000 enterprises, most of which are small, producing a wide array of different good and services. These range from pharmaceutical products to accountancy services and sustainable construction techniques, and from logistics to advanced materials and satellites [See reference 60].

3.19 The county is home to many well qualified people, but still, over 40,000 working age residents have no qualifications at all. The average resident of St. Albans who is employed on a full-time basis earns weekly pay of around £684, while the average weekly pay on a full-time basis in Hertsmere is £525 showing that there are substantial differences across the SW Hertfordshire area [See reference 61]. According to the 2011 census, 12,688 people were registered as unemployed and an additional 93,148 were economically inactive, not claiming anything from the state, but wanting a job. Dacorum has the highest number of people in both categories and Watford has the least compared with the rest of SW Hertfordshire.

3.20 The South West Hertfordshire Economic Study (2019) [See reference 62] outlines key information about the economy in South West Hertfordshire, including:

- The previous 2016 study identified a Functional Economic Market Area (FEMA) made up of Dacorum, Hertsmere, St Albans, Three Rivers and Watford. This was based on evidence of strong commuting and migration relationships and shared leisure, retail and public sector catchment areas. The definition of FEMA is still relevant. The FEMA is thought to share strong relationships with other areas (London, Luton/Central Beds, and the Cambridge-Milton Keynes-Oxford Corridor) which could exert a growing influence on economic and labour market trends in SW Hertfordshire. It is uncertain how these relationships might change in the future; however it is suggested that:
 - The loss of employment floor space in London presents opportunities for SW Hertfordshire to attract jobs and businesses.
 - As the economies of SW Hertfordshire and Luton/Central Beds are sufficiently different, the expected employment and housing growth planned around Luton is anticipated to complement rather than compete with growth in the FEMA.
 - While any effects on SW Hertfordshire of the significant growth up to 2050 within the Cambridge-Milton Keynes-Oxford Corridor are expected to be long term, there may be a risk that the scale of development and new infrastructure investment could make this a more attractive investment location for certain sectors where there may be competition with SW Hertfordshire.

3.21 Given the high level of housing growth already planned through emerging Local Plans for SW Hertfordshire and continuing affordability challenges in London, it is likely that the strong in-migration and out-commuting flows between the FEMA and London will continue to grow. The loss of employment floorspace in London presents opportunities for SW Hertfordshire to attract jobs and businesses, although this is dependent on SW Hertfordshire authorities addressing the current undersupply of employment space.

3.22 Trends identified that employment was growing at a strong rate up until 2019, as levels of growth were much stronger (1.5 to 2.8% p.a. based on the average growth rate over the previous ten and five year periods) when compared to the long-term growth rate of 0.4% p.a.

3.23 Trends identified that productivity had fallen prior to COVID-19 and was lower than the UK average: average GVA per job fell by £1,000 and was 2% lower than the national average, having been 8% higher in 2001. Supporting the growth of established sectors (e.g. professional services, ICT and film and TV production) is thought to be key to addressing these productivity challenges. SW Hertfordshire has a large supply of highly skilled workers to support the growth of these sectors. The main barrier to growth has been a shortage of high quality business premises to attract investment and to support the growth of indigenous businesses.

3.24 Supply of employment space is at critically low levels – a combination of growth and the loss of existing premises has resulted in a significant reduction in the availability of employment space in SW Hertfordshire. This has the potential to act as a significant constraint on growth, particularly in those office-based sectors which are key to increasing productivity.

3.25 Public transport access and connections to London are key for high value office investors.

3.26 The COVID-19 pandemic brought unprecedented economic upheaval across the world, including for SW Hertfordshire. Businesses have experienced significant financial pressure and those within town centres have experienced particularly acute challenges [See reference 63]. Hertfordshire's Economic Recovery Plan has been developed in response and is structured around three main Delivery Packages, which are concerned with Hertfordshire's businesses and workforce (existing and future), and focus on:

- Enterprise and innovation.
- Skills and creativity.
- International trade and innovation.

3.27 Hertfordshire's Economic Recovery Plan outlines the key challenges experienced by the Districts and Boroughs due to COVID-19 and what the future looks like. The future likely scenarios identified in this report for the five local planning authorities within SW Hertfordshire is outlined below:

- Dacorum – Looking ahead, the future of logistics will be important, given high levels of local concentration. The future of professional services will also underpin the pattern of recovery. Among the risks that will need to be considered local is the relatively large concentration of retail activity.
- Hertsmere – The London fringe economy of Hertsmere saw a sharp rise in the claimant count, those who claimed jobseeker's allowance and universal credit, to a rate that went above the country average. Hertsmere's economy is mixed in employment terms. The number of public sector and health jobs is small, so the future of the private sector is thought to be critical.
- Three Rivers – Saw a sharp rise in the claimant count although the rate was lower than the average for Hertfordshire. The uptake of the various government schemes to cushion the effects of the pandemic were similar to the county average. Looking ahead, the data suggests that the future performance of the business services will be critical; and the construction sector will also have a big influence.
- Watford – Appeared to see serious local economic effects linked to the pandemic. The uptake of furlough was high and the claimant count rose sharply; as a proportion of residents aged 16-64, it was among the highest in the county. Looking ahead, town centre functions could be vulnerable, and the high incidence of jobs linked to business administration and support services is a particular local feature. The resilience of those activities could be linked to head offices in Watford and elsewhere.
- St Albans – The uptake of the various government schemes was lower in St Albans than the rest of Hertfordshire, and the claimant count rate was also lower than elsewhere. These observations are thought to be explained by the high rate of professional, scientific and technical activities. They may also reflect the high rate of highly qualified people locally.

3.28 A number of districts within Hertfordshire have produced their own Economic Development Strategies to help address the adverse effects of COVID-19 on the local economy. Two of the SW Hertfordshire authorities have produced such strategies, Watford Economic Growth Strategy 2021-25 [See reference 64] and Dacorum Economic Recovery Plan [See reference 65]. Both set out priorities to create sustainable and lasting growth.

Transport, Air Quality and Noise

Transport

3.29 Significant housing growth is planned in future years and as a result Hertfordshire's population is forecast to grow by 21% by 2039, from 1.18million people in 2016 to 1.43million. This will fuel an increase in travel demand. Hertfordshire already has high levels of car ownership, good north-south links but relatively poor east-west connections, especially for public transport [See reference 66]. Existing problems, such as in Hertsmere for example, are caused by road links being better than access to public transport, particularly in terms of east to west transportation, which is reflected in the high levels of car ownership and traffic congestion [See reference 67]. Hertfordshire also experiences high levels of cross-boundary commuting and complicated movement patterns due to the high number of medium-sized towns. This all results in congestion between and within towns, rail overcrowding, and air quality problems. Those who live in rural areas, people who have a disability or other mobility impairment, or people who do not have access to a car often struggle to access key services because alternatives to the private car are currently not realistic, affordable or convenient. Tackling these issues requires a combination of support for walking, cycling and passenger transport provision, behaviour change initiatives and traffic demand management [See reference 68].

3.30 The M1, West Coast Mainline and Midland Mainline all cut across the west of Hertfordshire, close to three of Hertfordshire's largest towns, Watford, Hemel Hempstead and St Albans. These key transport routes are recognised for their

importance on the economic geography of the area [See reference 69]. The M1 corridor which cuts across the west of Hertfordshire includes the districts of Dacorum, Hertsmere, Three Rivers, Watford and St Albans. Although there are differences between these areas, their access to the M1 and connections northwards to Luton, Milton Keynes and the Midlands and southwards to London are shared locational strengths which will help to drive future economic growth [See reference 70]. **Figure 3.4** below shows the transport network across SW Hertfordshire.

3.31 Congestion is a major local concern in SW Hertfordshire [See reference 71]. The road network across SW Hertfordshire is currently under stress at key locations, and there is also stress on the strategic road network, particular the M25, such as within Three Rivers and Watford [See reference 72] [See reference 73]. Many congestion hotspots are where the strategic road network joins the local road network (e.g. in Hertsmere at Junction 23 of the M25 and Junction 5 of the M1, into and out of Hemel Hempstead to the M1 and within St. Albans City at peak times) [See reference 74]. Congestion is likely to continue to be an issue as forecasts predict a 25% increase in trips originating in Hertfordshire by 2036. Currently, car dependency in SW Hertfordshire is very high for local and longer trips. Nearly 9 out of 10 households own at least one car.

3.32 Rail links are relatively good across SW Hertfordshire, with many of the districts and boroughs having access to multiple stations and some to more than one lines [See reference 75]. As noted above, whilst rail links are good in a north-south direction across SW Hertfordshire they are much less so in the west-east direction. Additionally, rail overcrowding is common at peak times and is likely to increase with growing demand. A number of rail lines are forecast to be operating over capacity by 2031, specifically the Midland Main Line to St Pancras, West Coast Main Line suburban services and Great Northern services to Moorgate.

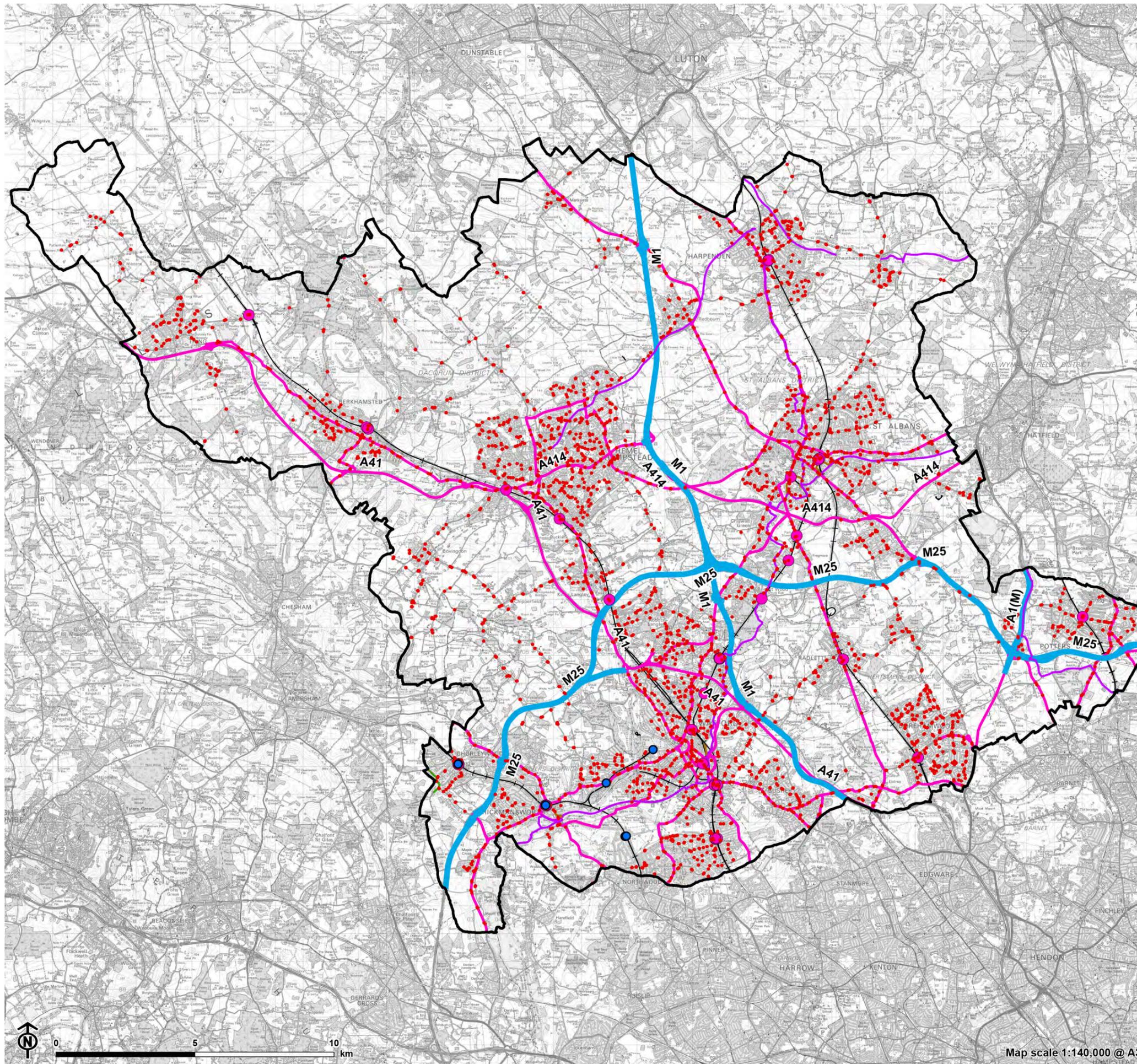
3.33 SW Hertfordshire has good access to air transport. Dacorum and St. Albans lie close to London Luton Airport; Watford has good transport links and is well placed at the intersection of the M25, M1 and A41 which provides good access to the major London airports of Heathrow, Gatwick, Stansted and Luton;

Hertsmere also has good transport links to all the major London airports via the Thameslink rail service to Gatwick and the M1, A41 and the M25 and Three Rivers also has good access to Heathrow, Luton, City, Stansted and Gatwick Airports, with all being within 60 km of Three Rivers.

3.34 In general, access to bus services is good across SW Hertfordshire, particularly within the main built-up areas but there are localised challenges, particularly where provision and regularity of services is poorer in the more rural area and areas with lower housing density [See reference 76]. Bus networks and service frequency is shrinking in some areas across SW Hertfordshire - the impact that COVID-19 has had on this trend is currently unknown.

3.35 There are a number of cycle networks throughout the area including the Nickey Line that follows the route of former Harpenden to Hemel Hempstead Railway, the Ebury Way connecting Watford and Rickmansworth and other routes along the Grand Union Canal. However, there are only a few dedicated cycle routes between urban areas. The walking and cycling networks are considered to meet current demands in Dacorum and Three Rivers; however there are localised issues, such as congestion on some routes putting people off using those routes [See reference 77], and often the facilities for pedestrians are provided alongside roads, where high traffic levels adjacent may make walking a less attractive option [See reference 78]. However, Hertsmere Borough Council has recently approved plans for a cycle hire scheme to be introduced in Borehamwood and its adjoining areas to encourage active and sustainable travel in Borehamwood [See reference 79]. Furthermore, Watford Borough Council has recently produced a new travel strategy for the borough which is underpinned by six key themes including: increasing active travel opportunities, improving public transport for longer journeys, providing alternatives to petrol car, making the town centre more pedestrian and cycle friendly, supporting change and making moving goods more sustainable. Various actions to achieve the six themes include, but are not limited to, improved cycle and pedestrian routes with increased cycle parking throughout Watford [See reference 80]. Specific information about the adequacy of the walking and cycle networks in St. Albans is not available.

Figure 3.4: Transport Network within South West Hertfordshire



- South West Hertfordshire
- Motorway
- A Road
- Railway
- National Cycle Network (NCN)
- NCN Link
- Regional Cycle Network
- Tram/Metro station
- Rail station entrance
- Bus/Coach stop

Air Quality

3.36 Air pollution in Hertfordshire comes mainly from two sources; road transport and gas boilers (particularly in town centre locations). In total, there are 17 Air Quality Management Areas (AQMAs) across SW Hertfordshire, as listed in **Table 3.9** and mapped in Figure 3.5 below. Air quality has improved over the past ten years, such as within the Chorleywood NO2 AQMA in Three Rivers [[See reference 81](#)], however the county still exceeds legal limits in some areas, particularly near busy roads, such as within the St Alban’s AQMAs which have annual average nitrogen dioxide levels above the legal minimum [[See reference 82](#)].

3.37 Many of the districts/boroughs have adopted measures to improve the air quality within the AQMAs as well as the borough/districts as a whole, principally targeting reducing pollution from road traffic. Watford Borough Council, for example, has adopted a number of measures to improve local air quality including the installation of rapid car charging points at nine major car parks, the extension of the e-car scheme, introduction of more cycle routes and facilities and providing better infrastructure to make roads safer for pedestrians. In addition, major road improvements have been made in a bid to alleviate congestion on key roads with AQMAs [[See reference 83](#)].

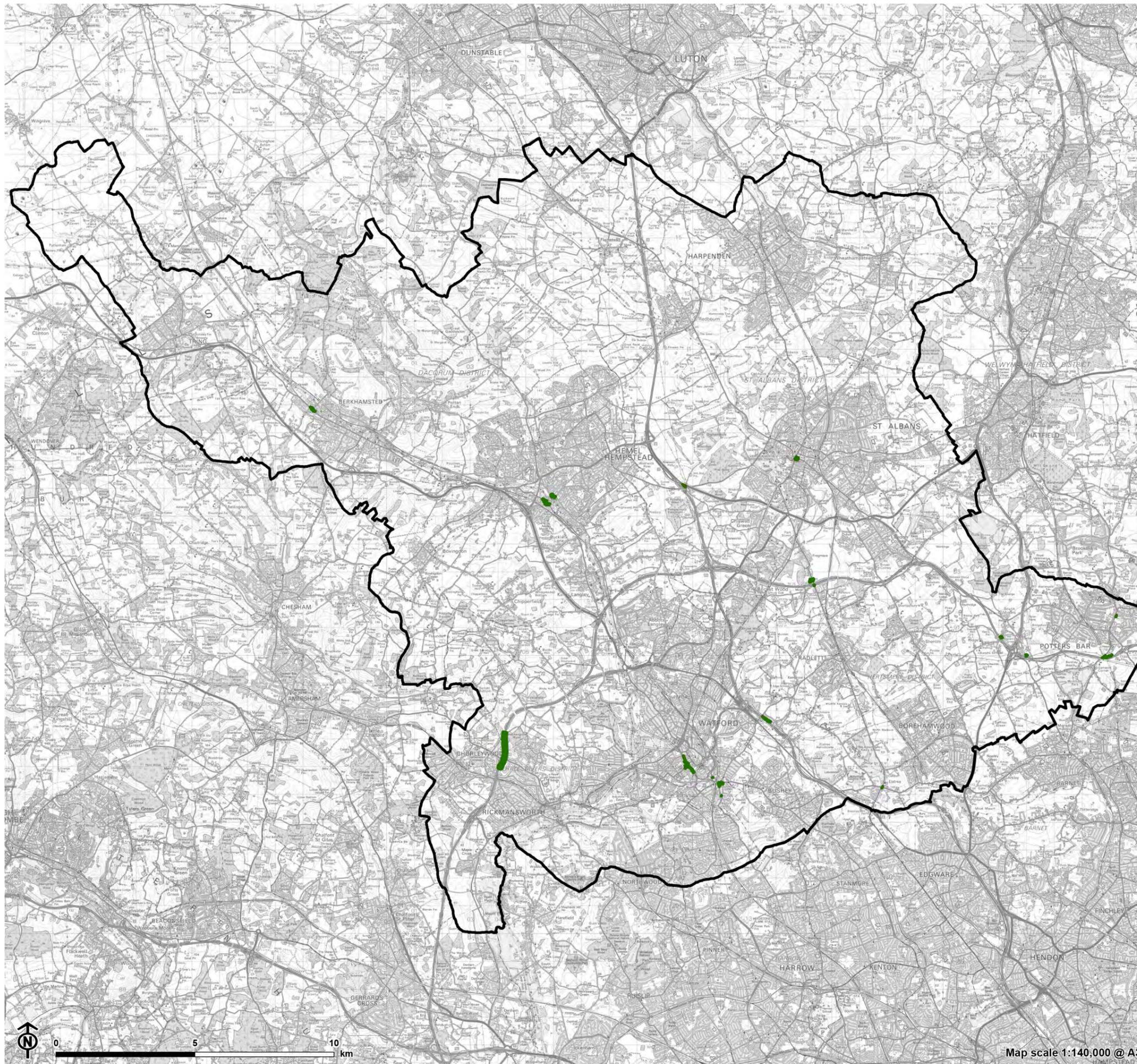
Table 3.9: Current AQMAs Declared by SW Hertfordshire Authorities

Borough/ District	AQMA
Dacorum	<ul style="list-style-type: none"> • AQMA No 1 Lawn Lane, Hemel Hempstead. • AQMA No 2 London Road, Apsley. • AQMA No 3 High Street, Northchurch, Berkhamsted.
Hertsmere	<ul style="list-style-type: none"> • AQMA 1 – An area comprised of the properties at 23-27 Dove Lane and the caravan site Brookes Place off the A1000 Barnet Road, near the M25.

Borough/ District	AQMA
	<ul style="list-style-type: none"> • AQMA 2 – An area comprised of Charleston Paddocks, St Albans Road, South Mimms, Potters Bar, near the M25. • AQMA 3 – An area comprised of properties 31-29 Blanche Lane South Mimms near the M25. • AQMA 4 – An area comprised of the domestic properties 12 Grove Place, Hartspring Lane and caravans numbered 1-4, 7-8, 55-59 and 60 within Winfield Caravan site, Hartspring Lane, near the M1 at Bushey. • AQMA 5 – An area encompassing a number of houses on the eastern side of Watling Street, either side of the junction with Barnet Road. • AQMA 6 – An area comprised of a number of domestic properties on the High Street, opposite the bus station Potters Bar.
Three Rivers	<ul style="list-style-type: none"> • AQMA - Chorleywood NO2 AQMA, situated at Junction 18 of the M25.
Watford	<ul style="list-style-type: none"> • AQMA 1: St Albans Road • AQMA 2: Vicarage Road • AQMA 3: Alderham Road/Chalk Hill • AQMA 4: A405/Horseshoe Road
St Albans	<ul style="list-style-type: none"> • St Albans AQMA No. 7 - The area comprising of odd numbers 1-7 London Road, 1-11c Holywell Hill and even numbers London Road, St Albans. • St Albans AQMA No. 2 - The area comprising of Beechtree Cottages, Hemel Hempstead Road, St Albans (adjacent to junction of M1 (J7) and M10). • St Albans AQMA No.7 - An area encompassing a number of domestic properties in Frogmore and Colney Street in the vicinity of the M25.

3.38 It should also be noted that the Habitat Regulations Assessment for the emerging Dacorum Local Plan has noted a variety of pressures on the Chilterns Beechwoods SAC, one of which is nitrogen deposition due to the highly travelled roads within Dacorum. Similar issues are likely to be identified through the HRA for the SW Herts JSP and will be explored through that process.

Figure 3.5: Air Quality Management Areas (AQMA) within South West Hertfordshire



- South West Hertfordshire
- Air Quality Management Area (AQMA)

Noise

3.39 Complaints about noise in Hertfordshire have declined since 2009/10 with the rate of complaints about noise in 2014/15 being 5.2 per 1000 population [See reference 84] [See reference 85]. Complaints received mainly relate to domestic noise (68.4% in 2015/16) and construction and commercial operations (20.4% in 2015/16) [See reference 86].

3.40 Hertfordshire is susceptible to noise from aircraft, due to its close proximity to the major airports of Stansted and Luton. In 2016 Hertfordshire residents raised 93% of aircraft noise complaints related to Luton and 10% related to Stansted Airport [See reference 87]. However, noise pollution levels from aircraft are not an issue for all areas of SW Hertfordshire, as there are no scheduled flight paths over Three Rivers from the London airports of Heathrow, Luton, City, Stansted and Gatwick [See reference 88].

Land and water resources

3.41 In Hertfordshire, as elsewhere, there are conflicting pressures on land use. This is particularly true for housing and associated infrastructure which has to be balanced with the protection of the natural environment as well as the preservation of the Green Belt.

Geology and soils

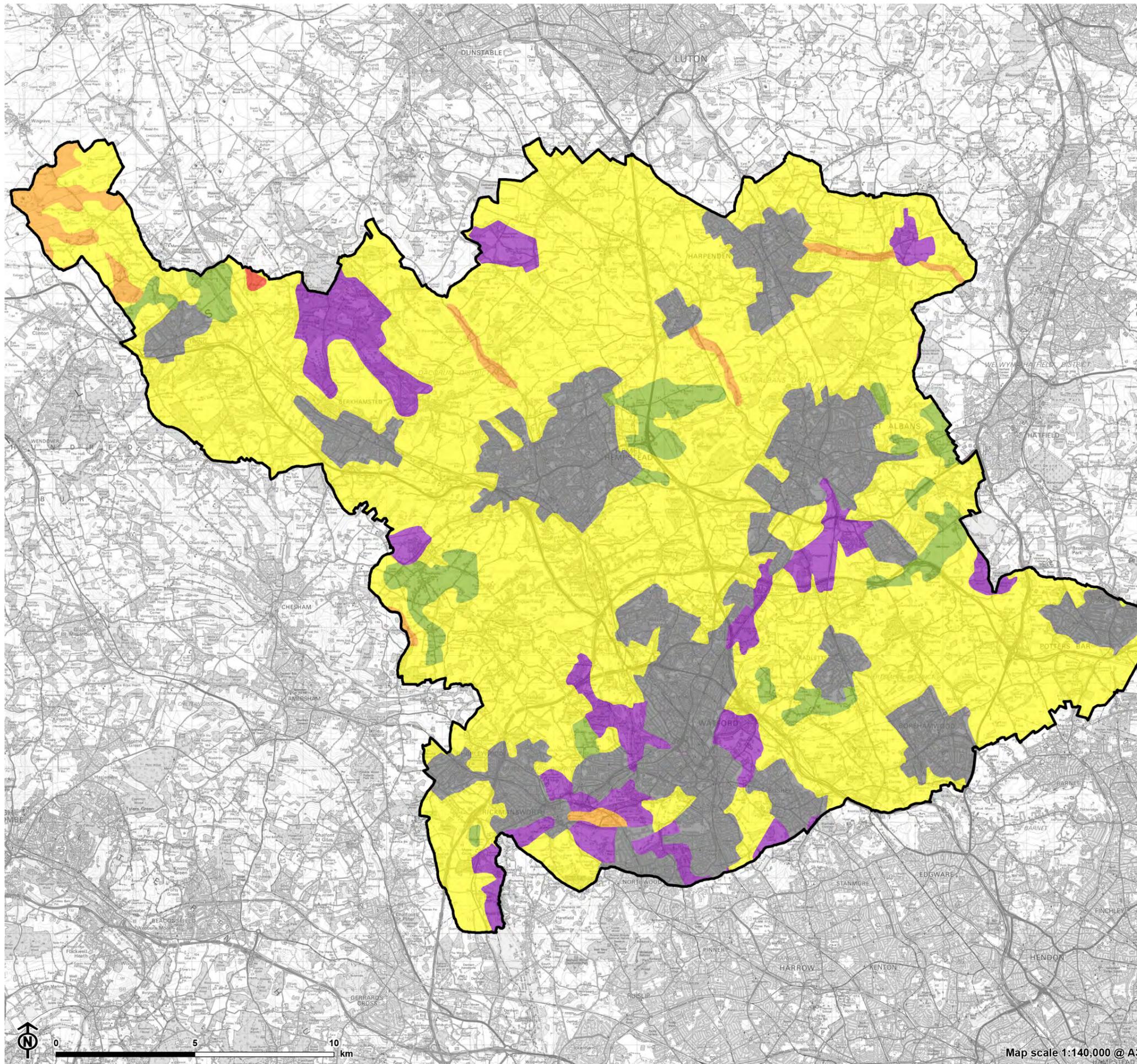
3.42 According to Natural England's Agricultural Land Classification, SW Hertfordshire consists of a mix of Grades 2, 3 and 4 agricultural land and urban areas. Figure 3.6 shows the agricultural land classification within SW Hertfordshire. Data is not available to show the split between Grades 3a and 3b (Grade 3a is considered to be high quality soil, while Grade 3b is not). The

majority of the soils within SW Hertfordshire are considered loamy. Specifically, loamy and clayey soils are found in the south and loamy and slightly clayey soils are found in the north.

3.43 Hertfordshire's geology is primarily chalk bedrock from the Cretaceous period, with a covering of London clay in the south of the County. Lying on top of the bedrock, there are superficial deposits of clay-with-flints covering a large proportion of western Hertfordshire, including the Chilterns dip slope. Sand and gravel is the most commonly worked mineral in Hertfordshire, with land-won sand and gravel providing the only source of soft sand and sharp sand. The sand and gravel resources are found in most parts of the County, although they are particularly concentrated in a belt sitting across the southern half of the County. This area entirely covers the local authority areas of Watford, Three Rivers, Hertsmere, Welwyn Hatfield and Broxbourne. Large parts of St Albans and East Hertfordshire are also covered along with a small part of Dacorum **[See reference 89]**.

3.44 Geodiversity is the variety of rocks, fossils, minerals, natural processes, landforms and soils that underlie and determine the character of our landscape and environment. Within Hertfordshire there are 19 sites designated as Regionally Important Geological and Geomorphological Sites (RIGs) which are the most important places for geology outside of statutorily protected land such as Sites of Special Scientific Interest (SSSIs). There are nine sites within SW Hertfordshire: four sites currently designated within Dacorum, three within Hertsmere and two within St. Albans.

Figure 3.6: Agricultural Land Classification



- South West Hertfordshire
- Grade 1 (Excellent)
- Grade 2 (Very good)
- Grade 3 (Good to moderate)
- Grade 4 (Poor)
- Grade 5 (Very poor)
- Non Agricultural
- Urban

Waste

3.45 Hertfordshire County Council is the waste disposal authority and the minerals and waste planning authority for the County. However, the authorities within SW Hertfordshire are responsible for waste collection. **Table 3.10** below sets out the total waste generated per household within each of the authorities within SW Hertfordshire for the years 2011/12 and 2018/19. This shows that there has been a decrease in the amount of residual waste across the area. However, the amount of development proposed through the various Local Plans within SW Hertfordshire could increase waste arisings.

Table 3.10: Total household waste generated in SW Hertfordshire (kilograms per household)

Year	Dacorum	Hertsmere	St. Albans	Watford	Three Rivers
2011/12	912	946	874	861	975
2018/19	851	863	838	810	864

3.46 The percentage of Local Authority Collected Waste that is recycled or composted in Hertfordshire was 51.7% in 2018/19, which is higher than the England average of 44.9%. Each planning authority within SW Hertfordshire increased its recycling rate except Dacorum which had a slight reduction for the year 2018/19 compared to 2017/18. Furthermore, St. Albans and Three Rivers achieved recycling rates above 62% for the same year. Hertfordshire County Council aims to reach 65% by 2035 [\[See reference 90\]](#).

Water

3.47 Water consumption in Hertfordshire is above average compared to the rest of the UK. At the Hertfordshire Water Summit in 2013, it was suggested that water consumption in Hertfordshire was 166 per capita consumption (pcc),

compared to the UK average of 150 pcc [See reference 91]. Furthermore, with lower than average annual rainfall, a growing population and water use 16% higher than the national average, Hertfordshire's water resource are under pressure and will continue to worsen due to climate change.

3.48 Hertfordshire County Council, in conjunction with nine Hertfordshire local authorities and Chiltern District Council, commissioned a Water Study in 2015 which was completed in early 2017 [See reference 92]. This involved collaborative working between the County and district councils, the Environment Agency, Hertfordshire LEP and the water companies that serve the area (Thames Water, Affinity Water and Anglian Water). The study describes the current environmental and infrastructure capacity with regards to water infrastructure and resources in the Hertfordshire area and considers solutions to any capacity issues identified over the period 2021 to 2051. This includes a provisional five-point action plan, including the following headline actions:

- Establish a water and sewerage infrastructure delivery partnership.
- Establish an integrated planning portal and single point of contact.
- Create a growth risk profile.
- Explore long term funding opportunities.
- Plan for AMP7 (2020-25) and the Price Review Mechanism (PR19) [See reference 93].

3.49 Thames Water covers most of Hertfordshire's drainage catchment split into two main catchments, each with a sewage treatment works (STW). Maple Lodge STW is located in Rickmansworth and serves the western portion of Hertfordshire. The Maple Lodge site serves Hemel Hempstead along with St Albans and Watford and given the future growth planned for this area will need to have upgrades in order to provide sufficient treatment capacity. There is also a smaller STW, Blackbirds, within Hertsmere to the west of Radlett. At present, Blackbirds is estimated to treat 17% of the total flow in the main trunk sewer, which comprises foul flows from St Albans, London Colney, Hatfield, Potters Bar and Borehamwood [See reference 94].

3.50 The River Colne is a river and tributary of the River Thames with over half its course within southern Hertfordshire. The river is under various pressures such as flow, physical modification, diffuse pollution and climate change. The River Colne has a Water Framework Directive (WFD) classification of moderate in the upstream section, but this falls to poor in the middle and downstream sections. All three sections are failing for flow and phosphates, the phosphate fluctuate slightly through the Colne starting as bad in the upstream section, which improves to moderate in the middle section but then drops to poor in the downstream section [\[See reference 95\]](#).

3.51 There are three chalk streams that run through SW Hertfordshire, the Rivers Bulbourne, Gade and Ver. These are globally rare habitats that are at risk of over abstraction. The Chilterns Chalk Streams Project [\[See reference 96\]](#) has been created to improve river habitats, improve access and enjoyment and promote the sustainable use of water within the Chilterns.

Minerals

3.52 Where development takes place within areas of mineral resources, this may result in the sterilisation of minerals, meaning that potentially useful mineral resources will no longer be available for extraction and use in the future.

3.53 Hertfordshire contains three main types of naturally occurring worked minerals: sand and gravel, chalk and brick clay, which can be seen in **Figure 3.7** below. Sand and gravel are the major aggregate minerals worked within the County.

3.54 Sand and gravel deposits are found in most parts of Hertfordshire although they are concentrated in an area south of a line between Bishops Stortford in the east and Hemel Hempstead in the west (often referred to as the sand and gravel belt). This area includes the entirety of the District Council areas of Three Rivers, Watford and Hertsmere, large parts of St Albans and a small part of Dacorum. Currently there are seven operational sand and gravel quarries in

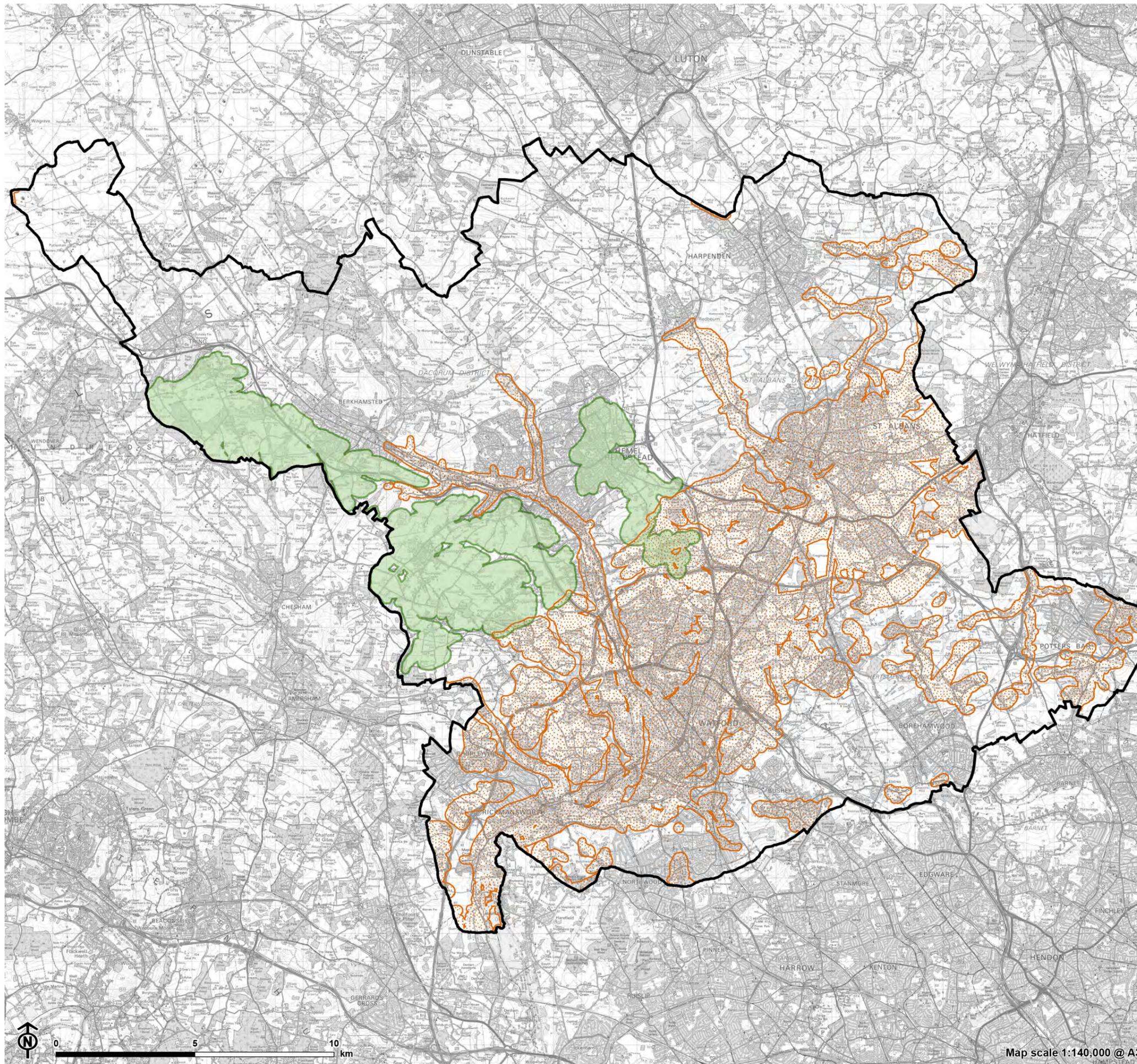
Hertfordshire, but of the seven sites, sand and gravel extraction is only taking place at three sites:

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

3.55 The remaining four sites are no longer extracting sand and gravel and are either in the process of infill/restoration or are not currently operating. An additional site (Coopers Green Land, Hatfield Quarry) has received planning approval subject to S106 agreements [\[See reference 97\]](#). There are also some areas of small-scale clay extraction linked to the last remaining local brick makers in Bovingdon, Dacorum.

3.56 Of the total land-won sand and gravel sales from quarries in Hertfordshire (1,170,985 tonnes) as reported in the Aggregate Minerals Survey 2014, 59% was used within Hertfordshire. Of this figure, 95% was transported by road and 5% by rail. The remaining sand and gravel was exported to West London (12%), East of England (12%), Bedfordshire (8%), East London (5%) and Essex, Southend and Thurrock (3%) [\[See reference 98\]](#).

Figure 3.7: Minerals Safeguarding Areas within South West Hertfordshire



- South West Hertfordshire
- Mineral Safeguarding Area - Brick and Clay
- Mineral Safeguarding Area - Sand and Gravel

Biodiversity

3.57 Across the UK, protected species have declined by 60% over the last 50 years due to the adverse impacts of climate change. There has been a 13% decline in average species abundance and 5% decline in average species distribution. 15% of species were found to be currently threatened with extinction from the UK and 2% have already gone extinct since 1970 [See reference 99].

3.58 In the last 50 years, 76 species (1% of those assessed) became extinct in Hertfordshire; more than three species every two years. Of these, 35 were invertebrates, 26 were plants, 13 were vertebrates and two were lichens. 1,446 species (19% of those assessed) are currently threatened with extinction in Hertfordshire. This includes over 1,000 invertebrates and 260 plants [See reference 100].

3.59 In response to these challenges, Hertfordshire County Council produced a Local Biodiversity Action Plan to identify priorities and actions for improving biodiversity within the county. The Action Plan seeks to ensure that national targets for species and habitats are implemented in a Hertfordshire context. Hertfordshire County Council has also implemented a Pollinator Strategy (2019-2024) to optimise the use of county council owned land, allocating areas for beehives and installing and maintaining 'bee hotels' within suitable green spaces.

3.60 At the European level, the Special Area of Conservation (SAC) designation applies to two areas of Chiltern Beechwoods in Dacorum. The largest area is at Ashridge, with a smaller area on the western boundary of the Borough, around Stubbings Wood which lies within Tring Park. This large site is protected for its beech forests, semi-natural dry grasslands and scrub, and its population of stag beetles.

3.61 There are a total of 14 Special Sites of Scientific Interest (SSSI) in SW Hertfordshire which are designated for either their biological or geological

interest. There are also 27 Local Nature Reserves (LNRs) across SW Hertfordshire. The County Council owns and manages two woodland areas which fall within National Nature Reserves in Hertfordshire. Figure 3.8 shows the locations of biodiversity designations within SW Hertfordshire.

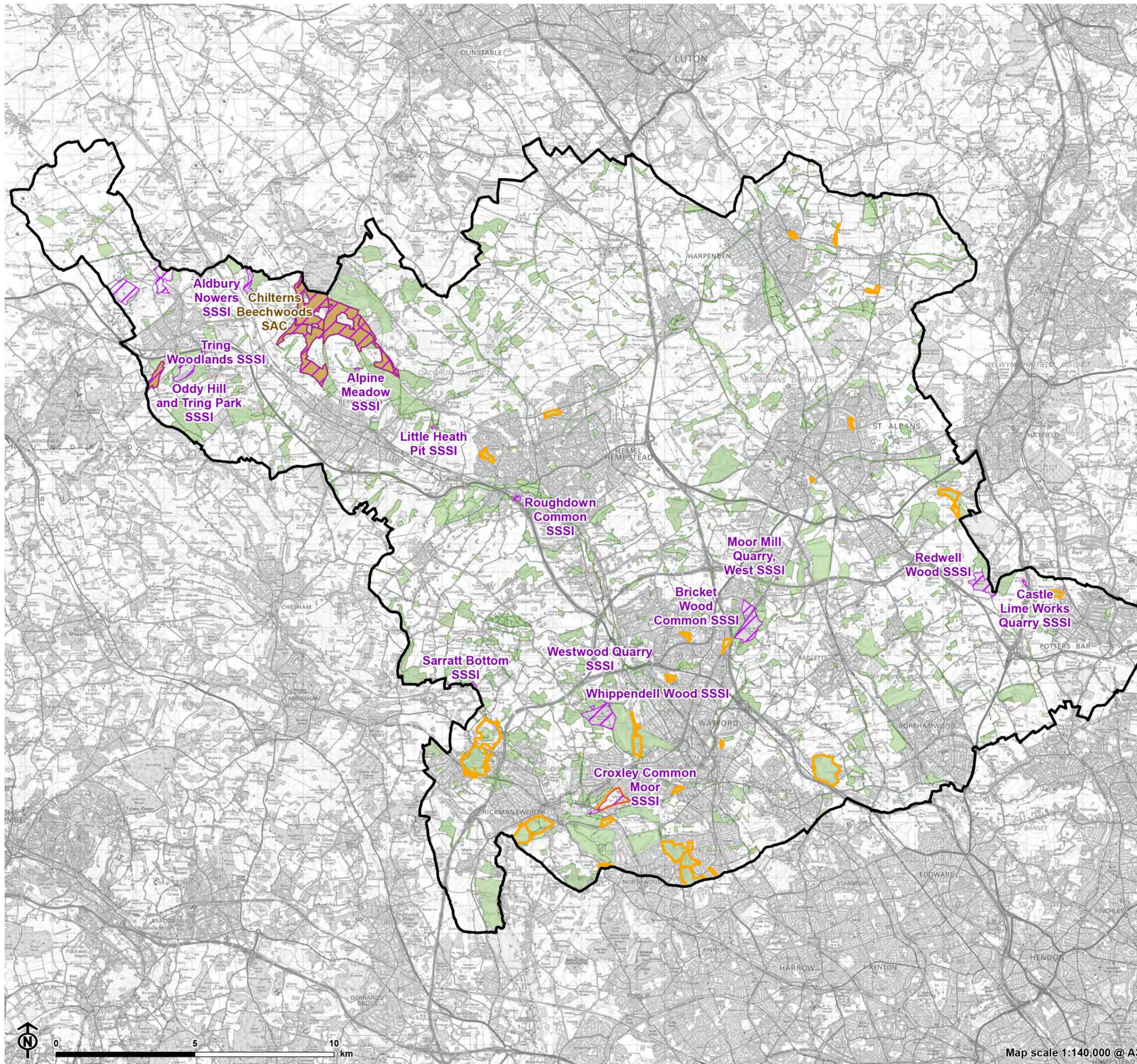
3.62 SW Hertfordshire contains seven priority habitats: Chalk Rivers, Lowland Meadow, Good Quality Semi-Improved Grassland, Coastal and Floodplain Grazing Marsh, Lowland Heath, Traditional Orchards and Deciduous Woodland. The area also contains numerous patches of Ancient Woodland scattered throughout the area. Notably, chalk streams are important habitats for wildlife and support a range of plants and animals and are a key characteristic of the Chilterns landscape.

3.63 The Hertfordshire Biodiversity Action Plan [\[See reference 101\]](#) identified 12 Key Biodiversity Areas in SW Hertfordshire ranging from wetlands and heath to woodlands and chalk grassland. These areas are to be prioritised for conservation action as they represent concentrations of important habitats.

3.64 Many of the older towns within SW Hertfordshire are historic market towns with relatively high development density. Therefore, tree cover within the public realm is quite limited. It covers occasional areas of street tree planting except in lower density leafy suburbs, such as in parts of St. Albans, Harpenden and Rickmansworth, or where mature woodland have become absorbed within larger settlement growth [\[See reference 102\]](#).

3.65 Recently the HRA for the emerging Dacorum Local Plan concluded that likely significant effects on the Chiltern Beechwoods SAC were possible due to recreational impacts, so a full Appropriate Assessment was required. The mitigation strategy includes a 'development exclusion zone' of 500m around the European site.

Figure 3.8: Biodiversity designations within South West Hertfordshire



- South West Hertfordshire
- Site of Special Scientific Interest
- Special Area of Conservation
- Local Nature Reserve
- Local Wildlife Site

Historic Environment

3.66 There are many historic and heritage designations within SW Hertfordshire, including 103 Conservation Areas, 2,504 listed buildings, 12 Registered Parks and Gardens and 58 Scheduled Monuments. Figure 3.9 below shows the locations of the designated heritage assets within the area. At present, there are five heritage assets included on Historic England’s Heritage at Risk Register within SW Hertfordshire [\[See reference 103\]](#). **Table 3.11** below summarises the number of heritage designations across the five authorities, including the number of heritage assets at risk.

Table 3.11: Summary of cultural heritage designations

District/Borough	Listed Buildings	Conservation Areas	Scheduled Monuments	Registered Parks and Gardens	Heritage Assets at Risk
Dacorum	911	25	32	4	2
Three Rivers	349	22	3	2	1
Hertsmere	317	23	4	4	0
Watford	92	10	0	1	1
St. Albans	857	19	19	2	1

3.67 There are no registered battlefields or World Heritage Sites within Hertfordshire, but there are six National Trust properties within SW Hertfordshire. There are also a number of locally listed Historic Parks and Gardens within the area [\[See reference 104\]](#).

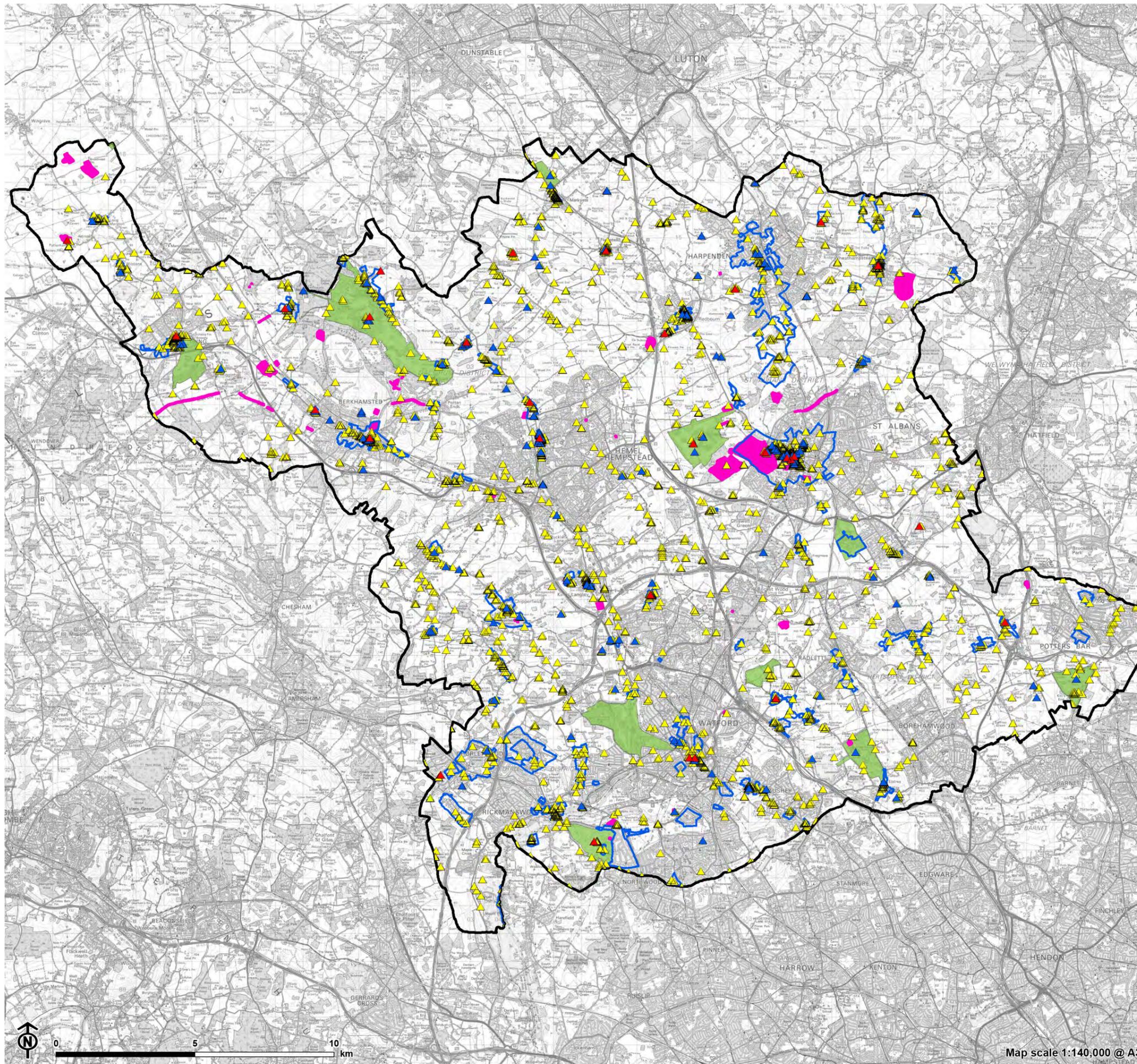
3.68 Development can affect both designated and undesignated heritage assets either directly or as a result of impacts on the setting of these assets. As well as listed buildings and scheduled monuments, consideration will also need to be

given to areas of archaeological potential which could be affected by new development.

3.69 The Hertfordshire Historic Environment Record (HER) contains information on historic buildings, archaeological remains, historic sites and military remains. It can be used to identify significant historic remains and contains information on surveys and archaeological excavations undertaken in Hertfordshire.

3.70 Proximity to London and the rapid growth in development pressures in 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. Hertfordshire's built environment is generally low rise, including in SW Hertfordshire. Guidance from Hertfordshire County Council [See reference 105] states that historic buildings need to adapt and manage change to remain viable. It also encourages new development to respect historic buildings, but not to replicate them. Much of Hertfordshire is characterised by traditional (mainly pre 1850s) building materials related to its geology and landscape. However, Hemel Hempstead New Town differs from the rest of SW Hertfordshire as it was developed in the late 1940s. The town is compact and is divided into residential neighbourhoods each with their own service centre. Much of the town's features are modernist, but it includes distinctive landscape features such as the Grand Union Canal and the Gade and Bulbourne Valleys.

Figure 3.9: Designated Heritage Assets within South West Hertfordshire



- South West Hertfordshire
- Listed Building (by grade)**
- ▲ I
- ▲ II*
- ▲ II
- Scheduled Monument
- Registered Parks and Gardens
- Conservation area

Landscape

3.71 The Chilterns Area of Outstanding Natural Beauty (AONB) falls within SW Hertfordshire, as shown in **Figure 3.10** below. **Figure 3.10** also shows the Chilterns Beechwoods SAC and other SACs within a 10km buffer of SW Hertfordshire for context.

3.72 The Chilterns contain an important diversity of habitats ranging from chalk grassland and to the country's most extensive areas of beech woodland. Over 11% of the AONB lies within a total of almost 500 Local Wildlife Sites [See reference 106]. Chalk streams are a characteristic and attractive feature of the Chilterns landscape. The Chilterns AONB Management Plan [See reference 107] sets the framework for protecting and enhancing the Chilterns. It outlines that many of the wildlife and plant species present in the Chilterns are in long-term decline due to:

- changes in land management practices,
- lack of wildlife habitat management, environmental and ecological change
- impact of people and dogs; and
- habitat fragmentation.

3.73 England has been divided into 159 separate National Character Areas (NCAs), each of which are regarded as distinct natural areas. A unique combination of landscape, biodiversity, geodiversity, history, and cultural and economic activity defines each area in question. The boundaries of each NCA relate to how these elements have combined to form the landscape and do not relate to administrative boundaries.

3.74 SW Hertfordshire is split between four NCAs, as shown in Figure 3.11:

- Chilterns is an extensively wooded and farmed landscape which is underlain by chalk bedrock that rises up from the London Basin to form a north-west facing escarpment offering long views over the adjacent vales.

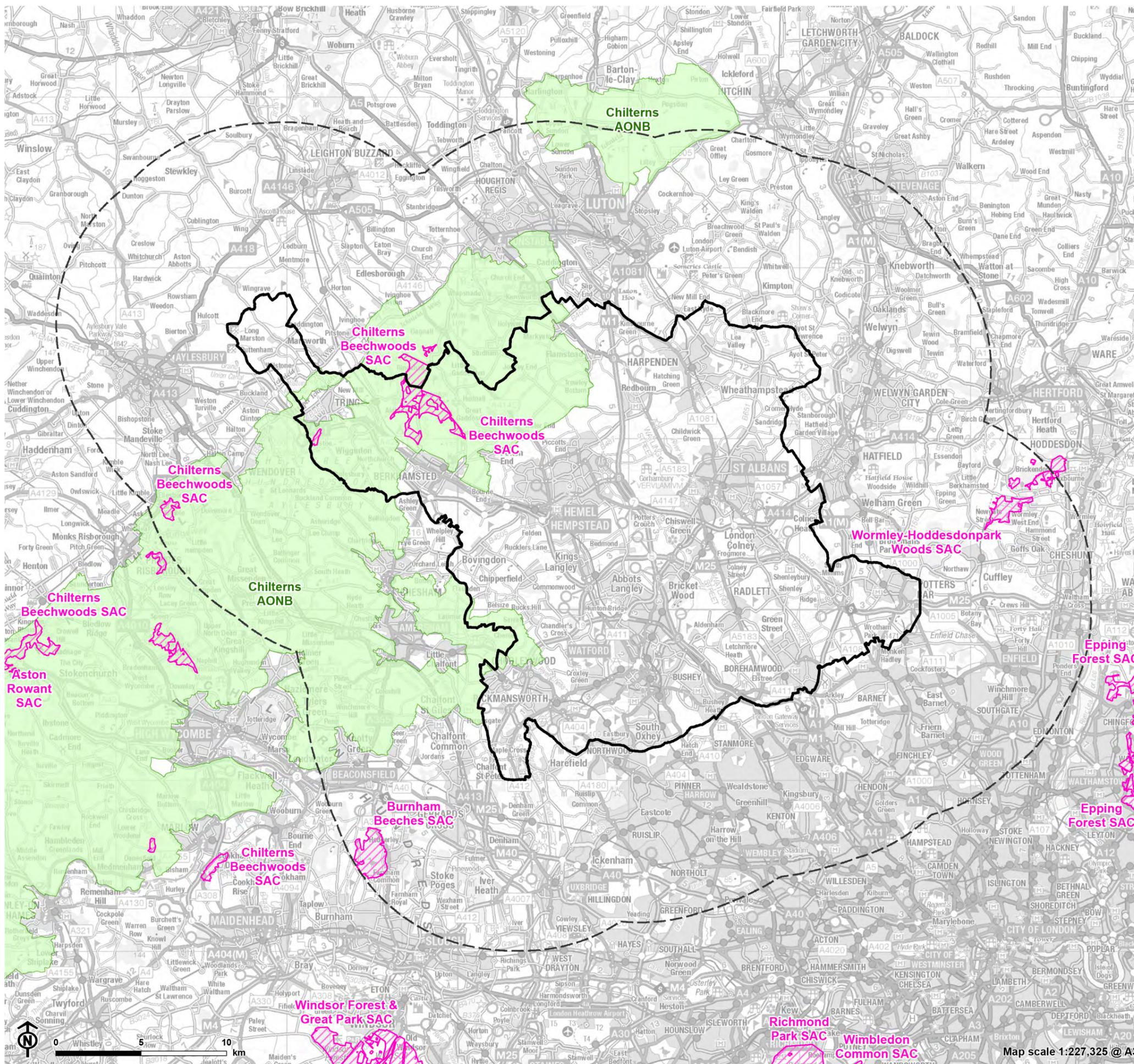
- Bedfordshire and Cambridgeshire Claylands is a broad, gently undulating, lowland plateau dissected by shallow river valleys that gradually widen as they approach The Fens NCA in the east.
- Northern Thames Basin contains a diverse range of semi-natural habitats including ancient woodland, lowland heath and floodplain grazing marsh.
- Thames Valley is a mainly low-lying, wedge-shaped area, widening from Reading, which includes Slough, Windsor, the Colne Valley and the southwest London fringes. The River Thames provides a unifying feature through a very diverse landscape of urban and suburban settlements, infrastructure networks, fragmented agricultural land, historic parks, commons, woodland, reservoirs and extensive minerals workings.

3.75 Hertfordshire is particularly wooded in some areas. Significant areas of wood pasture and pollarded veteran trees are also present. Mixed farming is characteristic of the Thames basin, with arable land predominating in the Hertfordshire plateaux.

3.76 The southern portion of the county is mostly acidic and has a highly distinctive character, extending down into much of Middlesex. This is the most wooded part of Hertfordshire and also contains the majority of the county's remaining heathland and acid grassland. The west of the county also holds a number of chalk rivers, chalk grassland and acidic areas [\[See reference 108\]](#).

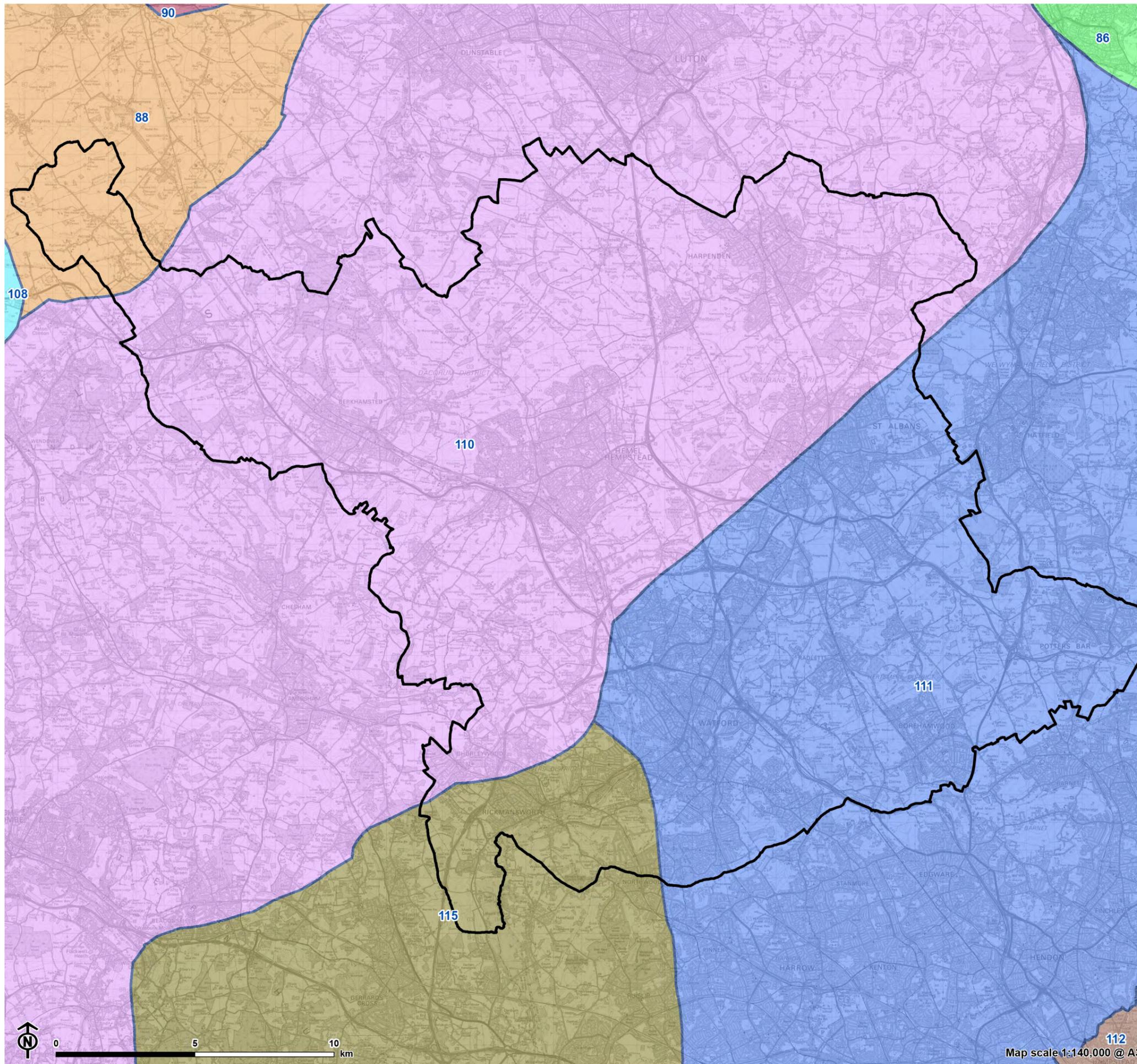
3.77 The Green Belt, whilst a planning rather than a landscape designation, plays an important role in safeguarding the countryside from encroachment, preserving the setting and special character of the area's historic settlements and assisting in urban regeneration. In Hertfordshire, an area of 84,640 hectares of land is designated as Green Belt, making up 51.5% of the county and around 70% of SW Hertfordshire, as shown in **Figure 3.12**.

Figure 3.10: Areas of Outstanding Natural Beauty and Special Areas of Conservation within and outside of South West Hertfordshire



- South West Hertfordshire
- South West Hertfordshire 10km buffer
- Area of Outstanding Natural Beauty
- Special Area of Conservation

Figure 3.11: National Character Areas within South West Hertfordshire



- South West Hertfordshire
- 86: South Suffolk and North Essex Clayland
- 88: Bedfordshire and Cambridgeshire Claylands
- 90: Bedfordshire Greensand Ridge
- 108: Upper Thames Clay Vales
- 110: Chilterns
- 111: Northern Thames Basin
- 112: Inner London
- 115: Thames Valley

Chapter 4

Key Sustainability Issues and Likely Evolution without the Plan

4.1 Analysis of the baseline information has enabled a number of key sustainability issues facing SW Hertfordshire to be identified. Identification of the key sustainability issues and consideration of how these issues might develop over time if the JSP is not implemented help to meet the requirements of Annex 1 of the SEA Directive to provide information on:

“the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan; and any existing environmental problems which are relevant to the plan.”

4.2 Key sustainability issues for SW Hertfordshire, as identified through the baseline information, are presented below.

4.3 It is also a requirement of the SEA Directive that consideration is given to the likely evolution of the environment in the plan area (in this case SW Hertfordshire) if the new JSP was not to be implemented. This analysis is presented below each of the key sustainability issues.

Key Sustainability Issues and their Likely Evolution without the JSP

Sustainability Issue 1: Impacts of climate change including temperature rises and an increase in extreme weather events

- Without the emerging JSP, it is likely that the impacts of climate change will still be mitigated against. National Policy will continue to seek to reduce carbon emissions through encouraging the switch to renewable energy, and more efficient use of energy and reduce the risk of flooding. The Sustainable Hertfordshire Strategy (2020) sets out the county council's vision for tackling climate change, detailing policies and initiatives. Therefore, this is likely to continue without the JSP and will be encouraged through the District and Borough Local Plans.
- However, the JSP provides the opportunity to strengthen the area's policy framework and provide regional guidance to encourage energy efficient development within SW Hertfordshire, to reduce the need to use the car through planning and support active and public transport options and presents an opportunity for the five Councils to work together alongside the Environment Agency to locate development in sustainable locations that would be significantly impacted by flooding and to mitigate the effects of potential future flooding. The JSP will help to guide future plans and strategies by setting out high-level policies on climate change mitigation and energy use.

Sustainability Issue 2: High house prices and affordability issues

- Without the emerging JSP, it is likely that housing and services and facilities would still be delivered through each of the District and Borough Local Plans, but without a strategic approach it may be more difficult to

keep pace with demand. Without the JSP it is likely that house prices will continue to rise within the area. As highlighted in the South West Hertfordshire Local Housing Needs Assessment (LHNA), there are affordability pressures within the South West Hertfordshire Housing Market Area (HMA), and without a strategic approach it will be difficult for affordable housing delivery. The JSP offers the opportunity to facilitate and expedite the delivery of affording housing across the area.

Sustainability Issue 3: Inadequate access to natural green space in various parts of SW Hertfordshire

- The JSP presents an opportunity to help address any existing deficiencies in accessible greenspace and to consider the multi-functionality of the green infrastructure network at a more strategic level to ensure there is connectivity between the walking, cycling and bridleway network as well additional greenspace.

Sustainability Issue 4: Health issues including excess weight in adults

- The JSP could further contribute to tackling issues of health and wellbeing and general health disparities through policies that strongly support uptake of active modes of transport. access to green space, community facilities, improved public realm and other recreation opportunities, an in particular in more deprived areas.

Sustainability Issue 5: Ageing population

- Without the emerging JSP, it is possible that the diverse and distinct nature of socio-economic challenges occurring across SW Hertfordshire will remain.

- As the JSP encourages more collaborative working between the five SW Hertfordshire Councils, the JSP offers the opportunity to ensure that appropriate resources are being targeted to areas with the greatest specific needs.

Sustainability Issue 6: Pockets of deprivation within an otherwise affluent area

- As above, the JSP offers the opportunity to ensure that appropriate resources are being targeted to areas with the greatest specific needs. As the JSP encourages more collaborative working between the five SW Hertfordshire Councils, it could result in opportunities for economic growth and development, which can help to reduce inequality.

Sustainability Issue 7: Critically low amount of available employment space

- The JSP provides the opportunity to focus planning and investment on key economic sectors and strategic corridors and locations, supported by sufficient infrastructure to provide the conditions to attract investment and support the growth of SW Herts indigenous businesses to help promote a competitive economy across the area.

Sustainability Issue 8: Impacts of the Covid-19 pandemic including drop in productivity

- The JSP offers the opportunity to promote the Local Industrial Strategy and district level recovery plans, where published, throughout the area to promote employment and productivity focusing directly on strategic employment need, supporting the growth of established sectors to target productivity challenges, especially within communities in need of economic investment.

Sustainability Issue 9: Poor public transport linkages

- The JSP provides additional opportunity to improve the public transport choices within SW Hertfordshire through the promotion of alternative travel modes to the motorised vehicle, in line with wider county and national policy aspirations. Additionally, through collaborative working between the five Councils, the JSP could help to deliver and better fund essential local transport links to discourage car dependency and encourage modal shift.

Sustainability Issue 10: Congestion and stress on the road network across SW Hertfordshire

- Recent national policies and the emergence of new technologies (such as improved electric vehicles, e-bikes and cleaner fuels/energy sources) are likely to help reduce the release of air pollutants. The JSP presents the opportunity to address issues associated with congestion through providing clarity for infrastructure providers at the same time as promoting a joined-up strategic approach to transport planning, integrated with the delivery of housing and economic development. Additionally, the JSP provides opportunities to support a modal shift and discourage car dependency.

Sustainability Issue 11: Pressure on water resources

- The JSP provides the opportunity to create a framework at a localised scale to ensure that strategic development is located to take into account the sensitivities of the water resources and provide an opportunity to encourage better and more sustainable use of water resources.

Sustainability Issue 12: Loss of biodiversity.

- Ongoing development, in addition to pollution and intensive recreational use, produce ongoing pressures that the JSP can help to address at a strategic scale, seeking to safeguard and improve not only designated sites, but the ecological networks and supporting habitats that support them and their species. Additionally, the JSP provides the opportunity to coordinate the provision of alternative SANGs to alleviate recreational pressure at designated biodiversity sites.

Sustainability Issue 13: Potential harm to the local landscape, specifically the Chilterns Area of Outstanding Natural Beauty (AONB)

- The JSP provides a further opportunity to ensure that the character and quality of the landscape is taken into account in the siting of strategic development, whilst maximising any opportunity for the protection and enhancement of the landscape.

Chapter 5

Sustainability Appraisal Framework

5.1 The development of a set of SA 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.

5.2 The proposed SA framework for the new JSP is presented in Table 5.1. The framework has been developed from the analysis of international, national and local policy objectives, the baseline information, and the key sustainability issues identified for the Plan area.

5.3 It comprises a series of SA objectives against which the sustainability of the JSP will be appraised. The appraisal of the JSP options and policies against these SA objectives will be guided in part by the appraisal questions accompanying each objective. The questions included in the framework are not exhaustive, and some may be more relevant to certain Plan elements than others.

5.4 All of the topics specifically required by the SEA Regulations (set out in Schedule 2 of the SEA Regulations) are addressed by the SA objectives.

SA Framework for the SW Hertfordshire Joint Strategic Plan

SA Objective 1: To minimise SW Hertfordshire's contribution to climate change and build resilience for adaptation to the changing climate

Appraisal Questions:

- Promote climate change resilience through sustainable siting, design, landscaping and infrastructure?
- Promote energy efficient approach and sustainable construction?
- Encourage the provision of renewable energy infrastructure?

SA Objective 2: To support meeting SW Hertfordshire's housing needs

Appraisal Questions:

- Provide opportunities to deliver the range of housing types and tenures and the affordable homes needed over the Plan period?
- Support addressing the housing needs of an ageing population?
- Enable the delivery of housing where it is most needed?
- Promote high quality housing?

SA Objective 3: To improve the health and wellbeing of SW Hertfordshire's population

Appraisal Questions:

- Promote access to healthcare facilities?
- Maintain, connect and create multifunctional open spaces and green infrastructure?
- Provide access to recreation and sports facilities?
- Encourage and facilitate walking and cycling?
- Put healthy placemaking at the core of the plan?

SA Objective 4: To reduce inequalities within SW Hertfordshire

Appraisal Questions:

- Reduce the disadvantage faced by those with protected characteristics?
- Assist in the reduction of health inequalities?
- Reduce poverty and social exclusion in the areas most affected?
- Promote developments that benefit SW Hertfordshire's most deprived areas?

SA Objective 5: To sustain and create vibrant and safe communities with good access to services and facilities

Appraisal Questions:

- Facilitate the integration of new communities with existing communities?
- Ensure access to a range of services and facilities?
- Help create places that address safety, crime and the fear of crime, and disorder?

SA Objective 6: To support the development of SW Hertfordshire's economy and achieve high and stable levels of employment

Appraisal Questions:

- Support the provision of a sufficient range, type and location of employment land to meet local needs?
- Allow for sufficient flexibility to respond to uncertainties and changing economic circumstances?
- Support opportunities for the expansion and diversification of business and inward investment?
- Support opportunities for new and improved education and training facilities?
- Support the diversification of employment types?

SA Objective 7: To reduce the need to travel by car

Appraisal Questions:

- Promote the delivery of integrated, compact communities (15 minute neighbourhoods) made-up of a complementary mix of land uses?
- Support the maintenance and expansion of high-quality public transport networks?
- Enhance connectivity of the sustainable transport network?
- Support the provision of new cycling and walking infrastructure?

SA Objective 8: To minimise air and noise pollution in SW Hertfordshire

Appraisal Questions:

- Minimise increases in polluting traffic, and its impact on Air Quality Management Areas?
- Reduce congestion, particularly involving HGVs?
- Support the take up of low / zero emission vehicles?
- Help reduce air pollution from commercial and industrial sources?
- Help minimise exposure to noise pollution?

SA Objective 9: To maintain and enhance water quality and quantity

Appraisal Questions:

- Minimise inappropriate development in Source Protection Zones?
- Ensure there is sufficient waste water treatment capacity to serve SW Hertfordshire?
- Ensure there are sufficient water resources to support existing and new development?
- Support efficient use of water in new development?
- Help safeguard the water quality and ecological integrity of waterbodies?

SA Objective 10: To reduce the risk from all sources of flooding in SW Hertfordshire

Appraisal Questions:

- Minimise built development in areas prone to flooding?
- Help promote the use of SuDS and flood resilient design?
- Help promote the use of Natural Flood Management techniques?

SA Objective 11: To protect SW Hertfordshire's soils and ensure efficient use of land

Appraisal Questions:

- Prioritise the development of brownfield land over greenfield land?

- Avoid development on best and most versatile agricultural land?
- Take an appropriate approach to remediating contaminated land?
- Promote nutrient neutral development?

SA Objective 12: To safeguard SW Hertfordshire's mineral resources

Appraisal Questions:

- Avoid sterilising mineral resources?
- Promote the appropriate restoration of sites that are no longer used?

SA Objective 13: To conserve and enhance SW Hertfordshire's biodiversity and geodiversity

Appraisal Questions

- Safeguard and enhance SW Hertfordshire's internationally, nationally and locally designated biodiversity assets?
- Safeguard and enhance SW Hertfordshire's ancient woodlands, chalk grasslands and other characteristic habitats?
- Help to conserve, connect and enhance ecological networks?
- Achieve overall net gains in biodiversity?
- Provide and manage opportunities for people to come into contact with resilient wildlife places whilst encouraging respect for and raising awareness of the sensitivity of such locations?
- Protect SW Hertfordshire's designated geodiversity sites?

SA Objective 14: To protect and enhance the significance of SW Hertfordshire's historic environment

Appraisal Questions:

- Conserve and enhance SW Hertfordshire's designated and undesignated heritage assets, including their setting?
- Encourage the conservation, management and enhancement of the region's heritage assets, particularly heritage at risk and historic landscapes?
- Help raise awareness, understanding and appreciation of, and access to, the historic environment?

SA Objective 15: To protect and enhance SW Hertfordshire's landscape character and quality

Appraisal Questions:

- Protect and enhance the character of the Chilterns AONB including its setting?
- Avoid development that would have adverse effects on sensitive landscapes?
- Safeguard the character and distinctiveness of SW Hertfordshire's settlements?

Use of the SA Framework

5.5 The SA should be undertaken in close collaboration with the officers responsible for drafting the new JSP in order to fully integrate the SA process with the production of the plan.

5.6 The findings of the SA will be presented using matrices, with a colour coded symbol showing for the likely effect of the option or policy on each of the SA objectives along with a concise justification for the effect identified, where appropriate.

5.7 The use of colour coding in the matrices will allow for likely significant effects (both positive and negative) to be easily identified, as shown in **Table 5.1** below.

Table 5.1: Key to symbols and colour coding to be used in the SA of the SW Hertfordshire Joint Strategic Plan

Symbol and Colour Coding	Description
++	The option or policy is likely to have a significant positive effect on the SA objective(s).
+	The option or policy is likely to have a positive effect of the SA objective(s).
0	The option or policy is likely to have a negligible or no effect on the SA objective(s).
-	The option or policy is likely to have a negative effect on the SA objective(s).
--	The option or policy is likely to have a significant negative effect on the SA objective(s).
?	It is uncertain what effect the option or policy will have on the SA objective(s), due to a lack of data.

Symbol and Colour Coding	Description
+/-	The option or policy is likely to have a mixture of positive and negative effects on the SA objective(s).

5.8 The dividing line between sustainability effects is often quite small. Where significant effects are distinguished from more minor effects this is because, using the appraisal questions and criteria and applying professional judgement, the effect of the option or policy in question on an SA objective will be of such magnitude that it will have a noticeable and measurable effect compared with other factors that may influence the achievement of that objective.

5.9 In determining the significance of the effects of the options for potential inclusion in the JSP it will be important to bear in mind its relationship with the other components of the planning system such as the NPPF, as these may provide additional safeguards or mitigation for potentially significant adverse effects.

Health Impact Assessment

5.10 Health Impact Assessment (HIA) aims to ensure that health-related issues are integrated into the plan-making process. As described in Chapter 1, the HIA will be incorporated into the SA. SA objective 3 directly addresses health issues, while achievement of SA objectives 1, 4, 5, 6, 7, 8, 13, 14 and 15 would also indirectly benefit people’s health. The high level growth types and policy options for the JSP will all be assessed against these objectives as part of the SA. The SA Report will make recommendations for how the health-related impacts of the JSP can be optimised as the options are developed into more detailed policies.

Equalities Impact Assessment

5.11 There are three main duties set out in the Equality Act 2010, which public authorities, including the five planning authorities within SW Hertfordshire, must meet in exercising their functions:

- To eliminate discrimination, harassment, victimisation and other conduct that is prohibited under the Act.
- To advance equality of opportunity between persons who share relevant protected characteristics and persons who do not share it.
- To foster good relations between persons who share a relevant protected characteristic and persons who do not share it.

5.12 The Equality Act 2010 identifies nine ‘protected characteristics’ and seeks to protect people from discrimination on the basis of these characteristics.

Socio-economic status (people on low incomes, young and adult carers, people living in deprived areas/rural areas, groups suffering multiple disadvantages etc.) is not a characteristic protected by the Equality Act 2010. However, the SW Herts Councils are committed to also considering the impact that the JSP will have on these groups. As described in Chapter 1, the EqIA will be incorporated into the SA - SA objective 4 directly addressed equality issues.

Chapter 6

SA Findings for the Vision, Objectives and Growth Types

6.1 The initial JSP Vision for 2050 represents the overarching goal for the area. The vision is an aspirational, crosscutting statement and as such is not itself suitable for appraisal, but the following six draft pillars that support the vision are appraised below. It should be noted that the vision and set of pillars/objectives may change as a result of the feedback received from the consultation.

1. Living green in a healthy natural environment
2. Growing opportunities to work locally
3. Living in healthy, thriving local communities
4. Moving easily in well-connected places
5. Building homes and places that people are proud of
6. Delivering robust and sustainable infrastructure

6.2 Table 6.1 summarises the SA findings for these six draft pillars, which are explained below the table.

Table 6.1: SA Scores for the Six Draft Pillars

SA objectives	Pillar 1	Pillar 2	Pillar 3	Pillar 4	Pillar 5	Pillar 6
SA1 – Climate change	++	0	0	+	0	+
SA2 - Housing	0	0	+	0	++	0
SA3 - Health	+	+	++	+	+	0
SA4 - Inequalities	+	+	+	0	+	0
SA5 - Communities	+	+	++	0	++	0
SA6 - Economy	+	++	0	0	0	+
SA7 - Travel	0	0	0	++	+	0
SA8 - Pollution	+	0	0	+	0	0
SA9 - Water	0	0	0	0	0	0
SA10 - Flooding	++	0	0	0	0	0
SA11 - Soils	0	0	0	0	0	0
SA12 - Minerals	+	0	0	0	0	+
SA13 – Biodiversity & Geodiversity	++	-?	0	0	-?	-?
SA14 – Historic Environment	0	-?	0	0	-?	-?

SA objectives	Pillar 1	Pillar 2	Pillar 3	Pillar 4	Pillar 5	Pillar 6
SA15 - Landscape	0	-?	0	0	-?	-?

Pillars and associated Objectives

Living green in a healthy natural environment

6.3 Pillar 1 aims to ensure that all new development is net zero carbon, carbon negative and incorporates nature-based solutions to build climate resilience. As such, a significant positive effect is expected for SA objectives 1 (climate change) and 10 (flooding). Pillar 1 also seeks to protect, enhance and connect new and existing biodiversity and ecological networks; therefore a significant positive effect is expected in relation to SA objective 13 (biodiversity and geodiversity). A minor positive effect is also expected for SA objective 12 (Minerals) as the reuse and recycling of construction materials could reduce the consumption of mineral resources.

6.4 Adapting to and mitigating against the impacts of climate change will also have minor positive effects on SA objectives 3 (Health), 4 (Inequalities), 5 (Communities), 6 (Economy) and 8 (Pollution) as this may help protect people from extreme weather events as well as the associated economic costs, increase job opportunities and minimise air pollution.

Growing opportunities to work locally

6.5 Pillar 2 promotes targeted investment into the local economy and workforce, supports the provision of education and training facilities and aims to diversify local job prospects thereby making the local economy more resilient. As such, a significant positive effect is expected in relation to SA objective 6 (Economy).

6.6 Minor positive effects are expected in relation to SA objectives 3 (Health), 4 (Inequalities) and 5 (Communities) as an increase in training opportunities and the provision of local facilities will help to support local communities and reduce deprivation in the areas most affected.

6.7 It is possible that the delivery of new workspaces could have negative effects on the environmental SA objectives, e.g. SA objectives 13 (Biodiversity and Geodiversity), 14 (Historic Environment) and 15 (Landscape); however this is uncertain until the precise location and design of any such development is known.

Living in healthy, thriving local communities

6.8 Pillar 3 seeks to provide healthy places that are inclusive, safe and interactive. This could increase levels of pedestrian activity and outdoor interaction; therefore significant positive effects are expected in relation to SA objectives 3 (Health) and 5 (Communities). Additionally, this pillar aims to create homes that provide opportunities for healthy and supported living, therefore minor positive effects are expected in relation to SA objectives 2 (Housing) and 4 (Inequalities).

Moving easily in connected places

6.9 Pillar 4 seeks to give people the opportunity for active and healthy living through the improved provision of public transport and active travel options. As such, significant positive effects are expected in relation to SA objective 7 (Travel). Minor positive effects are also expected for SA objectives 1 (Climate change), 3 (Health) and 8 (Pollution) as an improvements to the cycling and walking network can benefit physical and mental health and minimise the greenhouse gas emissions and air and noise pollution associated with vehicle traffic.

Building homes and places that people are proud of

6.10 Significant positive effects are recorded for SA Objective 2 (Housing) because this pillar aims to create homes and places that will fit the current and future needs of the local residents. It also seeks to create high quality public spaces creating sustainable communities. Therefore, a significant positive effect is expected for SA objective 5 (Communities). Additionally, the homes will be flexible, adaptable and built in sustainable locations; therefore minor positive effects are expected for SA objectives 3 (Health), 4 (Inequalities) and 7 (Travel).

6.11 It is possible that the delivery of new residential development could have negative effects on the environmental SA objectives, e.g. SA objectives 13 (Biodiversity and Geodiversity), 14 (Historic Environment) and 15 (Landscape); however this is uncertain until the precise location and design of any such development is known.

Delivering robust and sustainable infrastructure

6.12 Pillar 6 aims to deliver key infrastructure to meet local needs and adapt to climate change. To do this, this pillar promotes local renewable energy generation, the reuse and recycling of materials and access to fast digital networks for all. As such, minor positive effects are expected in relation to SA objectives 1 (Climate change), 6 (Economy) and 12 (Minerals).

6.13 It is possible that the delivery of new infrastructure could have negative effects on the environmental SA objectives, e.g. SA objectives 13 (Biodiversity and Geodiversity), 14 (Historic Environment) and 15 (Landscape); however this is uncertain until the precise location and nature of any such infrastructure is known.

Growth Types

6.14 Table 6.2 presents the SA findings for the seven potential growth types identified in the SW Hertfordshire JSP Regulation 18 Issues and Options document. These are broad and conceptual development types and not linked to an overall spatial scenario at this stage:

- a. **Growth within existing large settlements** – a continued focus on the existing city, towns and large villages, through a combination of more dense development than traditionally seen in SW Herts and maximising redevelopment opportunities.
- b. **Outward growth of existing large settlements** – the outward growth of existing city, towns and large villages through urban extensions.
- c. **New settlements** – the creation of completely new communities. These would need to be large enough to ensure they can provide key local facilities.
- d. **Growth of groups of settlements** – expanding the size of a number of existing communities which are located near to one another. These would need to be large enough in total to ensure they can provide key local facilities.
- e. **Growth along sustainable transport corridors** – locating growth where there is potential to create new connected and improved public transport corridors, particularly those running east-west through the area.
- f. **Growing the best-connected places** – a focus on areas that already have, or have the potential for, good access to railway stations, high frequency bus routes, high quality cycle routes and good pedestrian accessibility.
- g. **Scattered growth** – growth across the whole area, in all sizes of settlements, from large to small.

Table 6.2: SA findings for Growth Types

SA Objective	Growth Type a	Growth Type b	Growth Type c	Growth Type d	Growth Type e	Growth Type f	Growth Type g
SA1 – Climate change	++?	++?	-	-	++?	++?	+/-?
SA2 - Housing	++?	++?	++?	++?	++?	++?	++?
SA3 - Health	+/-	+/-	+/-	+/-	+/-	+/-	+/-
SA4 - Inequalities	+/-	+/-	+/-	+/-	+/-	+/-	+/-
SA5 - Communities	+/-	+/-	+/-	+/-	+/-	+/-	+/-
SA6 - Economy	++	++	+?	+?	++	++	+/-
SA7 - Travel	++?	++	-	-	++	++	+/-?
SA8 - Pollution	-?	-?	-	-	-?	-?	+/-?
SA9 - Water	-	-	-	-	-	-	--?
SA10 - Flooding	-	-	-	-	-	-	--?
SA11 - Soils	+/-?	+/-?	--?	--?	+/-?	+/-?	--?
SA12 - Minerals	0?	0?	0?	0?	0?	0?	0?
SA13 - Biodiversity	-	-	--?	--?	-	-	--?
SA14 - Historic Environment	-	-	-	-	-	-	--?
SA15 - Landscape	-	-	-	-	-	-	--?

6.15 There is limited variation between the likely effects identified for Growth Types a, b, e and f as they all would result in some or all new development being either within or close to existing towns and cities, along sustainable transport corridors and/or around strategic transport hubs, which means all would offer more alternatives to private vehicle use including more active travel modes, and generally better access to jobs, services and facilities. Growth Types c, d and g are likely to have the most potential negative effects because they may result in more new growth across the more rural areas of the area, where environmental assets are more likely to be adversely affected and where accessibility may be less good and levels of car use higher.

6.16 For the purposes of this initial appraisal it is assumed that the same scale of growth would occur under each growth type. However, as the Issues and Options document explains, it is likely that a number of growth types would ultimately make up the spatial strategy for the plan. Given that the overall scale of growth to be planned for has yet to be determined and will be established later in the plan making process, all growth types have been identified as having potential but uncertain significant positive effects on SA objective 2 (Housing) at this stage. Although all growth types have the potential to deliver a significant number of new homes, their affordability is unknown. The same general assumption has been made with regards to the provision of employment land; however the spatial pattern of existing employment opportunities has offered greater scope to draw out variations in likely effects of the growth types to SA objective 6 (Economy), which are described in more detail below.

6.17 Growth Types a, b, e and f are considered likely to have similar effects across all the SA objectives, because concentrating development in and around existing settlements and areas of good public transport connectivity is assumed to mean that development would be located mostly within SW Hertfordshire's existing towns and cities. These growth types would all have significant positive effects in relation to SA objective 6 (Economy) because development would take place in areas where there are already employment and educational facilities, allowing economic clusters to form and providing access to local employment opportunities. Employment opportunities could be more easily accessed by walking, cycling and public transport, potentially resulting in '20 minute neighbourhoods', in part because development would be intensified in

existing urban areas, resulting in significant positive effects on SA objective 7 (Travel). Minor positive effects are expected for SA objective 11 (Soils) because development within existing settlements could result in the use of brownfield land thereby minimising the loss of greenfield land, particularly land which is in agricultural use. However, this is uncertain at this stage.

6.18 Denser development in urban areas and/or around sustainable transport nodes would make district heating easier and use less energy per dwelling than lower density communities. This, combined with the reduced need to travel, would likely result in significant positive effects from Growth Types a, b, e and f on SA objective 1 (climate change). It is uncertain whether a range of services, facilities and infrastructure would be developed alongside new housing under these Growth Types, therefore uncertainty is attached to the likely effects on SA objectives 1 (climate change), 7 (travel) and 8 (pollution) as the use of private vehicles may still be needed, particularly in the early stages of development. Minor negative effects are expected from these Growth Types in relation to SA objective 8 (pollution) as there are currently 17 Air Quality Management Areas within SW Hertfordshire, many of which lie within existing settlements; therefore focussing new development in these areas would place more people in close proximity to these air quality issues, and potentially exacerbate them as a result of new traffic generation, including from HGVs in the short to medium term during the construction phase.

6.19 Growth Types a, b, e and f would have mixed minor positive and negative effects on SA objectives 3 (Health), 4 (Inequalities) and 5 (Communities). Existing towns and cities tend to have the highest concentration of existing healthcare facilities which could be accessed by new residents; however concentrating new development in those areas could also place existing facilities under increased pressure and would miss opportunities to potentially stimulate improved services in more rural areas. Existing residents are likely to feel negative impacts from a large increase in population, although new residents are likely to benefit from the existing services (e.g., leisure and retail facilities).

Although Growth Type e in particular may result in the development of greenfield land along existing transport corridors, Growth Types a, b, e and f are

all based on a principle of maximising development in and around existing centres. This has the potential to help minimise negative effects on biodiversity assets and achieve the more efficient use of land. However, Growth Type b in particular is still likely to result in large urban extensions at existing settlements, resulting in the loss of greenfield land. Furthermore, the densification of existing centres could result in fewer green spaces in and around urban areas, with associated losses of biodiversity. Therefore, a minor negative effect is expected for SA objective 13 (Biodiversity). Minor negative effects are also expected on SA objectives 9 (water), 10 (Flooding), 11 (Soils), 14 (Heritage) and 15 (Landscape) because some key existing settlements such as Watford are mostly in/near the floodplain therefore additional development in those areas could increase the risk of flooding. Additionally, existing settlements tend to have a higher number of designated heritage assets and attractive and distinctive townscapes, which would be affected by significant quantities of new development.

6.20 Growth Types d and g are considered likely to have broadly similar effects across the SA objectives as they would involve more dispersed growth across the area. The expansion of existing settlements could lead to the creation of new service centres able to support new healthy and vibrant communities, but it is likely that, at least in the short term, additional residents could put pressure on existing services and facilities. Therefore, mixed minor positive and minor negative effects are recorded against SA objectives 3 (Health), 4 (Inequalities) and 5 (Communities).

6.21 Growth Types d and g could result in growth within the rural areas of SW Hertfordshire away from the main service centres. As such, it is likely these Growth Types will utilise more greenfield land for development compared to the other Growth Types, resulting in less efficient use of land and greater potential for the loss of habitats. In addition, there are many Local Wildlife Sites, patches of Ancient Woodland, Local Nature Reserves and SSSIs that could be adversely impacted by development in the rural areas of the area, resulting in the potential for significant negative effects on SA objectives 11 (soils) and 13 (biodiversity). However, uncertainty is attached to the effects of Growth Type g because development could be directed to larger existing settlements which

could provide opportunities for the development of brownfield land over greenfield land.

6.22 Although new service centres would be created in new settlements and growth of groups of settlements, they are unlikely to be of a scale to be able to support significant new and improved local service centres of a scale needed for the level of growth likely to be required in the area, resulting in the need for more commuting to larger centres in existing and larger settlements. Growth Types d and g would therefore likely increase greenhouse gas emissions, traffic congestion and use of the private car resulting in minor negative effects on SA objectives 1 (climate change), 7 (travel), and 8 (pollution). However, uncertainty is attached to the effects of Growth Type g as development could be directed to larger existing settlements which are likely to be in closer proximity to sustainable methods of transport.

6.23 Additional development throughout the area including within the rural areas could result in more rural infrastructure which would open up new opportunities within the rural economy and encourage residents to stay within the rural areas for work, resulting in minor positive effects in relation to SA objective 6 (economy). For example, there is potential for an innovative rural economy with regard to farming practices in response to climate change and policy changes, as well as more home working. However, the long-term viability and capacity of these practices is currently uncertain.

6.24 With the potential greater loss of open countryside resulting from Growth Types d and g, development could result in the loss of permeable land thereby increasing the risk of flooding. Development could also result in the deterioration of the water supply. As such, minor negative effects are expected on SA objectives 9 (water) and 10 (flooding). Although the density of development outside of the main settlements would likely be lower, it would have to be more dispersed across SW Hertfordshire, which could potentially affect the setting and special character of the area's historic and landscape character. Therefore, minor negative effects on SA objectives 14 (historic environment) and 15 (landscape) are expected. However, uncertainty is attached to Growth Type g as development could be directed to larger existing

settlements and therefore could have less of a negative impact on the landscape.

6.25 Growth Type c would involve creating new settlements within the area which would provide key local facilities alongside housing. As such, the new settlements could promote the cohesion of new communities through provision of social infrastructure and could provide communities in surrounding areas with additional services and facilities. Therefore, minor positive effects are expected in relation to SA objectives 3 (Health), 4 (Inequalities) and 5 (communities). However, the additional social infrastructure that will be provided by new settlements may not provide easy access for existing residents and could be quite remote from existing service centres, introducing a risk that some new communities become commuter suburbs, acting as dormitories for local workers. In addition, new settlements can take a long time to deliver, which means that additional infrastructure may not be provided in the early years of the plan period but only once the settlement reaches a size large enough to support them. As such, minor negative effects are also expected in relation to SA objectives 3 (Health), 4 (Inequalities) and 5 (communities).

6.26 In addition to social infrastructure, new settlements are likely to provide additional local job opportunities, however it may take some time to attract businesses to invest in new settlements. Therefore, mixed minor positive and negative effects are expected in relation to SA objective 6 (economy). Mixed effects are also expected in relation to SA objectives 1 (climate change), 7 (travel) and 8 (pollution) as new settlements would provide services and facilities on site; however this may not be the case in the short term, so increased use of the private car is likely, thereby increasing traffic congestion and greenhouse gas emissions. New settlements could be masterplanned and sensitively planned to reduce the need for travel through good site layout and the creation of '20-minute neighbourhoods'; however the design and layout is unknown at this stage.

6.27 Similar to Growth Types d and g, Growth Type c is likely to utilise more greenfield land for new settlements compared to the other Growth Types, resulting in less efficient use of land and greater potential for the loss of habitats. Additionally, the conversion of greenfield land to impermeable surfaces

through development could increase the risk of flooding within the area. Therefore, under the precautionary principle, uncertain significant negative effects are identified in relation to SA objectives 10 (flooding), 11 (soils), 13 (biodiversity), 14 (heritage) and 15 (landscape).

6.28 All of the Growth Types are considered to have likely negligible effects on SA objective 12 (minerals) on the assumption that safeguarded minerals within allocated areas would be recovered before development occurred.

6.29 These growth types will be reassessed within future SA reports when it is clear how they will be configured as part of the overall growth/spatial strategy for SW Hertfordshire.

Chapter 7

Next Steps

7.1 In order to meet the requirements of the SEA Regulations, the views of the three statutory consultees (Environment Agency, Historic England and Natural England) are being sought in relation to the scope and level of detail to be included in the SA Report. In particular, consultees are in particular requested to consider whether:

- The scope of the SA is appropriate considering the role and priorities of the SW Herts JSP.
- The plans, policies or programmes referenced comprehensively cover those relevant to the SA of the SW Herts JSP.
- The baseline information provided is robust and comprehensive and provides a suitable baseline for the SA of the SW Herts JSP.
- All known significant sustainability issues of relevance to SW Herts and the JSP have been accurately represented.
- The defined SA framework is fit for purpose and includes a suitable set of SA objectives for assessing the effects of the SW Herts JSP and reasonable alternatives.

7.2 Responses from all consultees (both statutory and non-statutory) will be reviewed and appropriate amendments made to the Scoping Report, including to the baseline, policy context and SA framework where necessary. This may be addressed during the preparation of the first iteration of the full SA report.

Appendix A

Review of Relevant International and National Plans and Programmes

Population, health and wellbeing

International

A.1 The United Nations Declaration on Sustainable Development

(Johannesburg Declaration) (2002) sets the broad framework for international sustainable development, including building a humane, equitable and caring global society aware of the need for human dignity for all, renewable energy and energy efficiency, sustainable consumption and production and resource efficiency.

A.2 United Nations Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (the 'Aarhus Convention') (1998):

Establishes a number of rights of the public (individuals and their associations) with regard to the environment. The Parties to the Convention are required to make the necessary provisions so that public authorities (at national, regional or local level) will contribute to these rights to become effective.

A.3 Other topic based international policies relating to human health and wellbeing are described under the relevant topics below:

National

A.4 The NPPF includes as part of its social objective the promotion of “strong, vibrant and healthy communities” by:

- *“ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and*
- *by fostering well-designed, beautiful and safe places, with accessible services and open spaces that reflect current and future needs and support communities’ health, social and cultural wellbeing.”*

A.5 Ultimately planning policies and planning decision making should “*aim to achieve healthy, inclusive and safe places*”.

A.6 The document states that strategic policies should set out an overall strategy for the pattern, scale and design quality of places, and make sufficient provision for: housing (including affordable housing) ... *[as well as] community facilities (such as health, education and cultural infrastructure).*” Policies should reflect “*the size, type and tenure of housing needed*”. This policy approach is to include but should not be limited to housing requirements relating to affordable homes, families with children, older people, students, people with disabilities, service families, travellers, those who rent their homes and people wishing to commission the construction of their own homes. Major developments that involve the provision of new housing planning policies and decisions should expect at least 10% of the total number of homes to be delivered for affordable home ownership subject to conditions and exemptions.

A.7 To help to diversify opportunities for builders, promote the development of a good mix of sites, local planning authorities should identify, through the development plan and brownfield registers, land to accommodate at least 10% of their housing requirement on sites no larger than one hectare; unless it can be shown, through the preparation of relevant plan policies, that there are strong reasons why this 10% target cannot be achieved.

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A.8 Where there is an identified need, development of sites not already allocated for housing to provide entry-level homes suitable for first-time buyers is to be supported by local planning authorities unless such need is already to be met at other locations within the authority area. These sites should comprise of entry-level homes that offer one or more types of affordable housing.

A.9 The document also promotes a theme of enhancing healthy and safe communities which is to be achieved by creating places which *“promote social interaction (and) enable and support healthy lifestyles.”*

A.10 To provide the social, recreational and cultural facilities and services the community needs, planning policies and decisions should :

- plan positively for the provision and use of shared spaces, community facilities (such as local shops, meeting places, sports venues, open space, cultural buildings, public houses and places of worship) and other local services to enhance the sustainability of communities and residential environments;
- take into account and support the delivery of local strategies to improve health, social and cultural well-being for all sections of the community;
- guard against the unnecessary loss of valued facilities and services, particularly where this would reduce the community’s ability to meet its day-to-day needs;
- ensure that established shops, facilities and services are able to develop and modernise, and are retained for the benefit of the community; and
- ensure an integrated approach to considering the location of housing, economic uses and community facilities and services.

A.11 Plan making through the guidance of the NPPF recognises the important role of access to open spaces and other facilities which provide opportunities for sport and physical activity has in terms of health and wellbeing of communities. The importance of delivering a sufficient choice of school places to meet the needs of existing and new communities is also recognised in the document and

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local planning authorities should take a *“proactive, positive and collaborative approach to meeting this requirement”*.

A.12 The **NPPF** also sets out that the standard method provided in national planning guidance should be used to undertake a local housing need assessment identifying the minimum number of homes needed. **The Housing Delivery Test Measurement Rule Book [See reference 109]** provides this standard method allowing for calculation of objectively assessed housing need using government household forecasts adjusted for local house prices and local earnings. Unmet need from neighbouring areas will also need to be taken into account as part of the calculation.

A.13 National Design Guide [See reference 110] : sets out the Government’s priorities for well-designed places in the form of ten characteristics: context, identity, built form, movement, nature, public spaces, uses, homes and buildings, resources and lifespan.

A.14 Fair Society, Healthy Lives [See reference 111] investigated health inequalities in England and the actions needed in order to tackle them. Subsequently, a supplementary report was prepared providing additional evidence relating to spatial planning and health on the basis that there is “overwhelming evidence that health and environmental inequalities are inexorably linked and that poor environments contribute significantly to poor health and health inequalities”.

A.15 Select Committee on Public Service and Demographic Change report Ready for Ageing? [See reference 112]: warns that society is underprepared for the ageing population. The report states “longer lives can be a great benefit, but there has been a collective failure to address the implications and without urgent action this great boon could turn into a series of miserable crises”. The report highlights the under provision of specialist housing for older people and the need to plan for the housing needs of the older population as well as younger people.

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A.16 Laying the foundations: a housing strategy for England [See reference 113] : Aims to provide support to deliver new homes and improve social mobility.

A.17 Homes England Strategic Plan 2018 to 2023 [See reference 114] : Sets out a vision to ensure more homes are built in areas of greatest need, to improve affordability, and make a more resilient and diverse housing market.

A.18 Planning Policy for Traveller Sites [See reference 115] sets out the Government's planning policy for traveller sites. The Government's overarching aim is to ensure fair and equal treatment for travellers, in a way that facilitates the traditional and nomadic way of life of travellers while respecting the interests of the settled community.

A.19 Planning for the Future White Paper [See reference 116]: Sets out a series of potential reforms to the English planning system, to deliver growth faster. The White Paper focuses on the following:

- Simplifying the role of Local Plans and the process of producing them.
- Digitising plan-making and development management processes.
- Focus on design, sustainability and infrastructure delivery.
- Nationally determined, binding housing requirements for local planning authorities to deliver through Local Plans.

A.20 The Housing White Paper 2017 (Fixing our broken housing market) [See reference 117]: sets out ways to address the shortfall in affordable homes and boost housing supply. The White Paper focuses on the following:

- Planning for the right homes in the right places – Higher densities in appropriate areas, protecting the Green Belt while making more land available for housing by maximising the contribution from brownfield and surplus public land, regenerating estates, releasing more small and medium-sized sites, allowing rural communities to grow and making it easier to build new settlements.

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- Building homes faster – Improved speed of planning cases, ensuring infrastructure is provided and supporting developers to build out more quickly.
- Diversifying the Market – Backing small and medium-sized house builders, custom-build, institutional investors, new contractors, housing associations.
- Helping people now – supporting home ownership and providing affordable housing for all types of people, including the most vulnerable.

A.21 Public Health England, PHE Strategy 2020-25 [See reference 118] : identifies PHE’s priorities upon which to focus over this five-year period to protect people and help people to live longer in good health.

A.22 Healthy Lives, Healthy People [See reference 119]: Our strategy for public health in England : Sets out how our approach to public health challenges will:

- Protect the population from health threats – led by central government, with a strong system to the frontline.
- Empower local leadership and encourage wide responsibility across society to improve everyone’s health and wellbeing, and tackle the wider factors that influence it.
- Focus on key outcomes, doing what works to deliver them, with transparency of outcomes to enable accountability through a proposed new public health outcomes framework.
- Reflect the Government’s core values of freedom, fairness and responsibility by strengthening self-esteem, confidence and personal responsibility; positively promoting healthy behaviours and lifestyles; and adapting the environment to make healthy choices easier.
- Balance the freedoms of individuals and organisations with the need to avoid harm to others, use a ‘ladder’ of interventions to determine the least intrusive approach necessary to achieve the desired effect and aim to make voluntary approaches work before resorting to regulation.

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A.23 The 25 Year Environment Plan sets out goals for improving the environment over the next 25 years. It details how the Government will work with communities and businesses to leave the environment in a better state than it is presently. The document identifies six key areas upon which action will be focused. Those of relevance to the topics of population growth, health and wellbeing are using and managing land sustainably; and connecting people with the environment to improve health and wellbeing.

Economy

International and National

A.24 There are no specific international economic policy agreements relevant to the preparation of the South West Hertfordshire Joint Strategic Plan, although there are a large number of trading agreements, regulations and standards that set down the basis of trade within the European Union (subject to changes post-Brexit) and with other nations.

A.25 The **NPPF** contains an economic objective to *“help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity.”*

A.26 It also requires that planning seeks to *“create the conditions in which businesses can invest, expand and adapt”* with policies required to *“set out a clear economic vision and strategy which positively and proactively encourages sustainable economic growth”*. Policies addressing the economy should also seek *“to address potential barriers to investment, such as inadequate infrastructure, services or housing, or a poor environment.”*

A.27 Of particular relevance to South West Hertfordshire is the requirement for planning policies to *“recognise and address the specific locational requirements of different sectors. This includes making provision for clusters or networks of*

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knowledge and data-driven, creative or high technology industries; and for storage and distribution operations at a variety of scales and in suitably accessible locations.”

A.28 Planning policies are also required specifically to address support for the rural economy. Sustainable growth and expansion of all types of business and enterprise in rural areas should be supported, both through conversion of existing buildings and well-designed new buildings, while the diversification of the rural economy and promotion of sustainable rural tourism and leisure developments is also supported.

A.29 The **NPPF** also supports the role of town centres as functioning at the heart of local communities. This support is required to provide for a *“positive approach to [town centres’] growth, management and adaptation.”* Included within this support is a requirement to *“allocate a range of suitable sites in town centres to meet the scale and type of development needed, looking at least ten years ahead.”*

A.30 **The Local Growth White Paper (2010)** [See reference 120] highlights the importance of economic policy that focusses on the delivery of strong, sustainable and balanced growth of income and employment over the long-term, growth which is broad-based industrially and geographically to provide equality of access and opportunity and build businesses that are competitive internationally.

A.31 **Build Back Better: Our Plan for Growth** [See reference 121]: Sets out a plan to ‘build back better’ tackling long-term problems to deliver growth that delivers high-quality jobs across the UK while supporting the transition to net zero. This will build on three core pillars of growth: infrastructure, skills and innovation.

A.32 **The Ten Point Plan for Green Industrial Revolution** [See reference 122] outlines the national strategy for accelerating the UK’s transition to a net zero carbon economy. A key theme running through the document is the opportunity to ‘build back better’ through investing in strategies to mitigate and

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adapt to climate change. The Government has committed to investing a total of £12 billion in various programmes and estimates this will leverage up to £36 billion of private investment and create up to 250,000 new 'green' jobs by 2030.

A.33 The Agriculture Act 2020 [See reference 123] sets out a framework for the Government to establish new regulations for farming in the UK following Brexit. These include: financial assistance, multi-annual support and reporting programmes, food security, fair dealing in the supply chain and the reform of agricultural tenancies.

A.34 Agricultural Transition Plan 2021 to 2024 [See reference 124] aims to achieve a renewed agricultural sector where farms are profitable and economically sustainable and where farming contributes to environmental goals such as addressing climate change.

A.35 National Infrastructure Delivery Plan (2016-2021) [See reference 125] sets out the government's plans for economic infrastructure over a five year period with those to support delivery of housing and social infrastructure.

A.36 UK Industrial Strategy: building a Britain fit for the future (2018) [See reference 126] lays down a vision and foundations for a transformed economy. Areas including: artificial intelligence and big data; clean growth; the future of mobility; and meeting the needs of an ageing society are identified as the four 'Grand Challenges' of the future.

Transport

International

A.35 The Trans-European Networks (TEN) was created by the European Union by Articles 154-156 of the Treaty of Rome (1957), with the stated goals of the creation of an internal market and the reinforcement of economic and social cohesion. These include the Trans-European Transport Networks (TEN-T), which includes High Speed 1, and the Trans-European Telecommunications Networks (eTEN).

National

A.36 The **NPPF** requires that *“transport issues should be considered from the earliest stages of plan-making”*. The scale, location and density of development should reflect *“opportunities from existing or proposed transport infrastructure”*. To help reduce congestion and emissions, and improve air quality and public health the planning system should focus significant development *“on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes.”*

A.37 The framework also requires that planning policies support an appropriate mix of uses across an area to further help reduce the need to travel as well as the provision of high quality walking and cycling network. While the framework promotes the use and development of sustainable transport networks it also requires that *“where there is robust evidence, sites and routes which could be critical in developing infrastructure to widen transport choice and realise opportunities for large scale development”* should be identified and protected.

A.38 The Road to Zero [See reference 127] sets out new measures towards cleaner road transport, aiming to put the UK at the forefront of the design and manufacturing of zero emission vehicles. It explains how cleaner air, a better

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environment, zero emission vehicles and a strong, clean economy will be achieved. One of the main aims of the document is for all new cars and vans to be effectively zero emission by 2040.

A.39 Transport Investment Strategy [See reference 128]: Sets out the four objectives that the strategy aims to achieve:

- Create a more reliable, less congested, and better connected transport network that works for the users who rely on it.
- Build a stronger, more balanced economy by enhancing productivity and responding to local growth priorities.
- Enhance our global competitiveness by making Britain a more attractive place to trade and invest; and
- Support the creation of new housing.

A.40 Door to Door: A strategy for improving sustainable transport integration [See reference 129] : Focuses on four core areas which need to be addressed so that people can be confident in choosing greener modes of transport. There are as follows:

- Accurate, accessible and reliable information about different transport options.
- Convenient and affordable tickets.
- Regular and straightforward connections at all stages of the journey and between different modes of transport.
- Safe and comfortable transport facilities.

A.41 The strategy also includes details on how the Government is using behavioural change methods to reduce or remove barriers to the use of sustainable transport and working closely with stakeholders to deliver a better-connected transport system.

A.42 Department for Transport, Decarbonising Transport: Setting the Challenge (2020) [See reference 130] sets out the strategic priorities for a new Transport Decarbonisation Plan (TDP), to be published later in 2020, will set out in detail what government, business and society will need to do to deliver the significant emissions reduction needed across all modes of transport, putting us on a pathway to achieving carbon budgets and net zero emissions across every single mode of transport by 2050. This document acknowledges that while there have been recently published strategies [See reference 131] to reduce greenhouse gas emissions in individual transport modes, transport as a whole sector needs to go further and more quickly, therefore the TDP will take a coordinated, cross-modal approach to deliver the transport sector's contribution to both carbon budgets and net zero.

A.43 Department for Transport, Decarbonising: A Better, Greener Britain [See reference 132] sets out the government's commitments and the actions needed to decarbonise the entire transport system in the UK. It includes:

- the pathway to net zero transport in the UK.
- the wider benefits net zero transport can deliver.
- the principles that underpin our approach to delivering net zero transport.

A.44 The plan follows on from Decarbonising transport: setting the challenge, published in March 2020, which laid out the scale of additional reductions needed to deliver transport's contribution to legally binding carbon budgets and delivering net zero by 2050. This plan takes into account the changes in transport demand following the pandemic.

Air, land, and water quality

National

A.45 The **NPPF** states that planning policies and decisions should contribute to and enhance the natural and local environment by protecting and enhancing valued soil and the economic and other benefits of the best and most versatile agricultural land. Policies should also prevent new and existing development from *“contributing to, being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution.”*

A.46 The document also requires that strategic policies should seek to make the most effective use of land in meeting local requirements making as much use as possible of previously-developed or ‘brownfield’ land. Furthermore policies should *“support appropriate opportunities to remediate despoiled, degraded, derelict, contaminated or unstable land”*.

A.47 Environmental Protection Act 1990 [See reference 133]: makes provision for the improved control of pollution to the air, water and land by regulating the management of waste and the control of emissions. Seeks to ensure that decisions pertaining to the environment are made in an integrated manner, in collaboration with appropriate authorities, non-governmental organisations and other persons.

A.48 Building Regulations [See reference 134]: requires that reasonable precautions are taken to avoid risks to health and safety cause by contaminants in ground to be covered by building and associated ground.

A.49 National Planning Policy for Waste (NPPW) [See reference 135]: Key planning objectives are identified within the NPPW, requiring planning authorities to:

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- Help deliver sustainable development through driving waste management up the waste hierarchy.
- Ensure waste management is considered alongside other spatial planning concerns.
- Provide a framework in which communities take more responsibility for their own waste.
- Help secure the recovery or disposal of waste without endangering human health and without harming the environment.
- Ensure the design and layout of new development supports sustainable waste management.

A.50 The Nitrate Pollution Prevention Regulations [See reference 136]

provides for the designation of land as nitrate vulnerable zones and imposes annual limits on the amount of nitrogen from organic manure that may be applied or spread in a holding in a nitrate vulnerable zone. The Regulations also specify the amount of nitrogen to be spread on a crop and how, where and when to spread nitrogen fertiliser, and how it should be stored. It also establishes closed periods during which the spreading of nitrogen fertiliser is prohibited.

A.51 The Urban Waste Water Treatment Regulations [See reference 137]

protect the environment from the adverse effects of urban waste water discharges and certain industrial sectors, notably domestic and industrial waste water. The regulations require the collection of waste water and specifies how different types of waste water should be treated, disposed and reused.

A.52 The Water Environment (Water Framework Directive) Regulations

[See reference 138] protect inland surface waters, transitional waters, coastal waters and groundwater, and outlines the associated river basin management process

A.53 The Water Supply (Water Quality) Regulations [See reference 139]

focus on the quality of water for drinking, washing, cooking and food

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preparation, and for food production. Their purpose is to protect human health from the adverse effects of any contamination of water intended for human consumption by ensuring it is wholesome and clean.

A.54 The Environmental Permitting Regulations [See reference 140]

streamline the legislative system for industrial and waste installations into a single permitting structure for those activities which have the potential to cause harm to human health or the environment. They set out how to prevent or, where that is not practicable, to reduce emissions into air, water and land and to prevent the generation of waste, in order to achieve a high level of protection of the environment and human health.

A.55 The Air Quality Standards Regulations [See reference 141] set out limits on concentrations of outdoor air pollutants that impact public health, most notably particulate matter (PM10 and PM2.5) and nitrogen dioxide (NO₂). It also sets out the procedure and requirements for the designation of Air Quality Management Areas (AQMAs).

A.56 The Environmental Noise Regulations [See reference 142] apply to environmental noise, mainly from transport. The regulations require regular noise mapping and action planning for road, rail and aviation noise and noise in large urban areas. They also require Noise Action Plans based on the maps for road and rail noise and noise in large urban areas. The Action Plans identify Important Areas (areas exposed to the highest levels of noise) and suggest ways the relevant authorities can reduce these. Major airports and those which affect large urban areas are also required to produce and publish their own Noise Action Plans separately. The Regulations do not apply to noise from domestic activities such as noise created by neighbours; at work places; inside means of transport; or military activities in military areas.

A.57 The Waste (Circular Economy) (Amendment) Regulations [See reference 143] amend a range of legislation to prevent waste generation and to monitor and assess the implementation of measures included in waste prevention programmes. They set out requirements to justify not separating waste streams close to source for re-use, recycling or other recovery

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operations, prohibit incineration and landfilling of waste unless such treatment process represent the best environmental outcome in accordance with the waste hierarchy. The Regulations set out when waste management plans and in waste prevention programmes are required. The Regulations focus on the circular economy as a means for businesses to maximise the value of waste and waste treatment.

A.58 Safeguarding our Soils – A Strategy for England [See reference 144]

sets out how England’s soils will be managed sustainably. It highlights those areas which Defra will prioritise and focus attention in tackling degradation threats, including: better protection for agricultural soils; protecting and enhancing stores of soil carbon; building the resilience of soils to a changing climate; preventing soil pollution; effective soil protection during construction and; dealing with contaminated land.

A.59 The Water White Paper [See reference 145] provides out the Government’s vision for the water sector including proposals on protecting water resources and reforming the water supply industry. It outlines the measures that will be taken to tackle issues such as poorly performing ecosystems, and the combined impacts of climate change and population growth on stressed water resources.

A.60 National Policy Statement for Waste Water [See reference 146]: sets out Government policy for the provision of major waste water infrastructure. The policy set out in this NPS is, for the most part, intended to make existing policy and practice in consenting nationally significant waste water infrastructure clearer and more transparent.

A.61 Future Water: The Government’s Water Strategy for England [See reference 147] : Sets out how the Government wants the water sector to look by 2030, providing an outline of steps which need to be taken to get there. These steps include: improving the supply of water; agreeing on important new infrastructure such as reservoirs; proposals to time limit abstraction licences; and reducing leakage. The document also states that pollution to rivers will be tackled, whilst discharge from sewers will be reduced.

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A.62 The Air Quality Strategy for England, Scotland, Wales and Northern Ireland [See reference 148] sets out a way forward for work and planning on air quality issues by setting out the air quality standards and objectives to be achieved. It introduces a new policy framework for tackling fine particles, and identifies potential new national policy measures which modelling indicates could give further health benefits and move closer towards meeting the Strategy's objectives. The objectives of the Strategy are to:

- Further improve air quality in the UK from today and long term.
- Provide benefits to health quality of life and the environment.

A.63 The Road to Zero [See reference 149] sets out new measures towards cleaner road transport, aiming to put the UK at the forefront of the design and manufacturing of zero emission vehicles. It explains how cleaner air, a better environment, zero emission vehicles and a strong, clean economy will be achieved. One of the main aims of the document is for all new cars and vans to be effectively zero emission by 2040.

A.64 The UK Plan for Tackling Roadside Nitrogen Dioxide Concentrations [See reference 150] provides the Government's ambition and actions for delivering a better environment and cleaner air, including £1 billion investment in ultra-low emission vehicles (ULESvs), a £290 million National Productivity Investment Fund, a £11 million Air Quality Grant Fund and £255 million Implementation Fund to help local authorities to prepare Air Quality Action Plans and improve air quality, an £89 million Green Bus Fund, £1.2 billion Cycling and Walking Investment Strategy and £100 million to help improve air quality on the National road network.

A.65 Of the key areas in the **25 Year Environment Plan** around which action will be focused, those of relevance to the South West Hertfordshire in terms of the protection of air, land and water quality are: using and managing land sustainably; recovering nature and enhancing the beauty of landscapes; and increasing resource efficiency, and reducing pollution and waste:

- Using and managing land sustainably:

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- Embed a 'net environmental gain' principle for development, including natural capital benefits to improved and water quality.
- Protect best agricultural land.
- Improve soil health, and restore and protect peatlands.
- Recovering nature and enhancing the beauty of landscapes:
- Respect nature by using our water more sustainably.
- Increasing resource efficiency and reducing pollution and waste.
- Reduce pollution by tackling air pollution in our Clean Air Strategy and reduce the impact of chemicals.

A.66 Our Waste, Our Resources: A strategy for England (2018) [See reference 151] aims to increase resource productivity and eliminate avoidable waste by 2050. The Strategy sets out key targets which include: a 50% recycling rate for household waste by 2020, a 75% recycling rate for packaging by 2030, 65% recycling rate for municipal solid waste by 2035 and municipal waste to landfill 10% or less by 2035.

A.67 Clean Air Strategy 2019 [See reference 152]: This strategy sets out the comprehensive action that is required from across all parts of government and society to meet these goals. New legislation will create a stronger and more coherent framework for action to tackle air pollution. This will be underpinned by new England-wide powers to control major sources of air pollution, in line with the risk they pose to public health and the environment, plus new local powers to take action in areas with an air pollution problem. These will support the creation of Clean Air Zones to lower emissions from all sources of air pollution, backed up with clear enforcement mechanisms. The UK has set stringent targets to cut emissions 2030. The goal is to reduce the harm to human health from air pollution by half.

Climate change mitigation and adaptation

International

A.68 United Nations Paris Climate Change Agreement (2015) is an international agreement to keep global temperature rise this century well below 2 degrees Celsius above pre-industrial levels.

National

A.69 The Climate Change Act 2008 (amended 2019) [See reference 153] sets targets for UK greenhouse gas emission reductions of at least 80% by 2050 and CO2 emission reductions of at least 26% by 2015, against a 1990 baseline. An update to the act was made in 2019 which sets a new target for UK greenhouse gas emissions of 100% by 2050.

A.70 Planning and Energy Act (2008) [See reference 154]: enables local planning authorities to set requirements for carbon reduction and renewable energy provision. It should be noted that while the Housing Standards Review proposed to repeal some of these provisions, at the time of writing there have been no amendments to the Planning and Energy Act.

A.71 The **NPPF** contains as part of its environmental objective a requirement to mitigate and adapt to climate change, *“including moving to a low carbon economy”*. The document also states that the *“planning system should support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change.”* To achieve these aims new development should be planned to ensure appropriate adaptation measures are included (including green infrastructure) and should be designed, located and orientated as to help to reduce greenhouse gas emissions.

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A.72 The revised framework also requires that development is directed away from areas which are at highest existing or future risk of flooding. Where development is required in such areas, the “*development should be made safe for its lifetime without increasing flood risk elsewhere.*”

A.73 In relation to coastal change in England planning policies and decisions should take account of the UK Marine Policy Statement and marine plans. Furthermore, plans should “*reduce risk from coastal change by avoiding inappropriate development in vulnerable areas and not exacerbating the impacts of physical changes to the coast*”.

A.74 The Energy Performance of Buildings Regulations [See reference 155] seek to improve the energy efficiency of buildings, reducing their carbon emissions and lessening the impact of climate change. The Regulations require the adoption of a standard methodology for calculating energy performance and minimum requirements for energy performance, reported through Energy Performance Certificates and Display Energy Certificates.

A.75 The UK Renewable Energy Strategy [See reference 156] describes out the ways in which we will tackle climate change by reducing our CO2 emissions through the generation of a renewable electricity, heat and transport technologies.

A.76 The Energy Efficiency Strategy [See reference 157] aims to realise the wider energy efficiency potential that is available in the UK economy by maximising the potential of existing dwellings by implementing 21st century energy management initiatives on 19th century homes.

A.77 The UK Low Carbon Transition Plan: National Strategy for Climate and Energy [See reference 158] : sets out a five point plan to tackle climate change. The points are as follows: protecting the public from immediate risk, preparing for the future, limiting the severity of future climate change through a new international climate agreement, building a low carbon UK and supporting individuals, communities and businesses to play their part.

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A.78 UK Climate Change Risk Assessment 2017 [See reference 159]: sets out six priority areas needing urgent further action over the next five years.

These include:

- flooding and coastal change risks to communities, businesses and infrastructure,
- health, well-being and productivity from high temperatures,
- shortages in public water supply, and for agriculture, energy generation and industry with impacts on freshwater ecology,
- natural capital, including terrestrial, coastal, marine and freshwater ecosystems, soils and biodiversity,
- domestic and international food production and trade and
- new and emerging pests and diseases and invasive non-native species affecting people, plants and animals.

A.79 Independent Assessment of UK Climate Risk [See reference 160]: published by the Committee on Climate Change as an independent assessment of the UK's climate risk. It will feed into the UK's third National Adaptation Programme when it is published later in 2022. As such it represents the latest thinking in terms of the level of risk that the UK faces in relation to climate change. One of the key findings of this report is that there is new evidence to suggest that the gap between the level of risk we face and the level of adaptation underway has widened since the publication of the previous National Adaptation Programme in 2018.

A.80 The National Adaptation Programme and the Third Strategy for Climate Adaptation Reporting [See reference 161] sets out visions for the following sectors:

- People and the Built Environment – “to promote the development of a healthy, equitable and resilient population, well placed to reduce the harmful health impacts of climate change...buildings and places (including built heritage) and the people who live and work in them are resilient and organisations in the built environment sector have an increased capacity to

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address the risks and make the most of the opportunities of a changing climate.”

- Infrastructure – “an infrastructure network that is resilient to today’s natural hazards and prepared for the future changing climate”.
- Natural Environment – “the natural environment, with diverse and healthy ecosystems, is resilient to climate change, able to accommodate change and valued for the adaptation services it provides.”
- Business and Industry – “UK businesses are resilient to extreme weather and prepared for future risks and opportunities from climate change.”
- Local Government – “Local government plays a central in leading and supporting local places to become more resilient to a range of future risks and to be prepared for the opportunities from a changing climate.”

A.81 The Flood and Water Management Act 2010 [See reference 162] and The Flood and Water Regulations [See reference 163] sets out measures to ensure that risk from all sources of flooding is managed more effectively. This includes: incorporating greater resilience measures into the design of new buildings; utilising the environment in order to reduce flooding; identifying areas suitable for inundation and water storage to reduce the risk of flooding elsewhere; rolling back development in coastal areas to avoid damage from flooding or coastal erosion; and creating sustainable drainage systems (SuDS).

A.82 Understanding the risks, empowering communities, building resilience: The national flood and coastal erosion risk management strategy for England [See reference 164] This Strategy sets out the national framework for managing the risk of flooding and coastal erosion. It sets out the roles for risk management authorities and communities to help them understand their responsibilities. The strategic aims and objectives of the Strategy are to:

- Manage the risk to people and their property.
- Facilitate decision-making and action at the appropriate level – individual, community or local authority, river catchment, coastal cell or national.
- Achieve environmental, social and economic benefits, consistent with the principles of sustainable development.

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A.83 The 25 Year Environment Plan sets out policy priorities with respect to: responding to climate change are using and managing land sustainably; and protecting and improving our global environment. Actions that will be taken as part of these two key areas are as follows:

- Using and managing land sustainably:
- Take action to reduce the risk of harm from flooding and coastal erosion including greater use of natural flood management solutions.
- Protecting and improving our global environment:
- Provide international leadership and lead by example in tackling climate change and protecting and improving international biodiversity.

A.84 The Ten Point Plan for Green Industrial Revolution [See reference 165] outlines the national strategy for accelerating the UK's transition to a net zero carbon economy. A key theme running through the document is the opportunity to 'build back better' through investing in strategies to mitigate and adapt to climate change. The Government has committed to investing a total of £12 billion in various programmes and estimates this will leverage up to £36 billion of private investment and create up to 250,000 new 'green' jobs by 2030.

Biodiversity

International

A.83 International Convention on Wetlands (Ramsar Convention) (1976) is an international agreement with the aim of conserving and managing the use of wetlands and their resources.

A.84 European Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) (1979) aims to ensure conservation and protection of wild plant and animal species and their natural habitats, to

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increase cooperation between contracting parties, and to regulate the exploitation of those species (including migratory species).

A.85 International Convention on Biological Diversity (1992) is an international commitment to biodiversity conservation through national strategies and action plans.

A.86 United Nations Declaration on Forests (New York Declaration) (2014) sets out international commitment to cut natural forest loss by 2020 and end loss by 2030.

National

A.87 A requirement of the **NPPF's** environmental objective is that the planning system should contribute to protecting and enhancing the natural environment including helping to improve biodiversity, and using natural resources prudently. In support of this aim the framework states that Local Plans should “*identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks*” and should also “*promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.*”

A.88 The framework requires that plans should take a strategic approach in terms of “*maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries*”.

A.89 The Environment Act 2021 [See reference 166] introduces a requirement that all applications for the development of land will have to deliver a 10% biodiversity net gain above the ecological baseline for the application site. The Act also introduces Local Nature Recovery Strategies which will guide the delivery of biodiversity net gain projects. The requirements of the Environment Act will come into force in 2023 following a two-year transition

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period to enable local planning authorities, developers and others to prepare for the proposed requirement.

A.90 The Conservation of Habitats and Species Regulations [See reference 167] protect biodiversity through the conservation of natural habitats and species of wild fauna and flora, including birds. The Regulations lay down rules for the protection, management and exploitation of such habitats and species, including how adverse effects on such habitats and species should be avoided, minimised and reported.

A.91 The Natural Environment and Rural Communities Act 2006 [See reference 168] places a duty on public bodies to conserve biodiversity.

A.92 England Biodiversity Strategy Climate Change Adaptation Principles [See reference 169] : sets out principles to guide adaptation to climate change. The principles are: take practical action now, maintain and increase ecological resilience, accommodate change, integrate action across all sectors and develop knowledge and plan strategically. The precautionary principle underpin all of these.

A.93 Biodiversity 2020: A strategy for England's wildlife and ecosystem services [See reference 170] guides conservation efforts in England up to 2020 by requiring a national halt to biodiversity loss, supporting healthy ecosystems and establishing ecological networks. The Strategy includes 22 priorities which include actions for the following sectors: Agriculture, Forestry, Planning & Development, Water Management, Marine Management, Fisheries, Air Pollution and Invasive Non-Native Species.

A.94 Biodiversity Offsetting in England Green Paper [See reference 171] sets out a framework for offsetting. Biodiversity offsets are conservation activities designed to compensate for residual losses.

A.95 The key areas of the **25 Year Environment Plan** of relevance in terms of the protection and promotion of biodiversity are recovering nature and enhancing the beauty of landscapes; securing clean, productive and biologically

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diverse seas and oceans; and protecting and improving our global environment. Actions that will be taken as part of these three key areas are as follows:

- Develop a Nature Recovery Network to protect and restore wildlife, and provide opportunities to re-introduce species that have been lost from the countryside.
- Achieve a good environmental status of the UK's seas while allowing marine industries to thrive, and complete our economically coherent network of well-managed marine protected areas.
- Provide international leadership and lead by example in tackling climate change and protecting and improving international biodiversity.
- Support and protect international forests and sustainable agriculture.

Heritage

International

A.95 United Nations (UNESCO) World Heritage Convention (1972) :

promotes co-operation among nations to protect heritage around the world that is of such outstanding universal value that its conservation is important for current and future generations.

A.96 European Convention for the Protection of the Architectural Heritage of Europe (1985): defines 'architectural heritage' and requires that the signatories maintain an inventory of it and take statutory measures to ensure its protection. Conservation policies are also required to be integrated into planning systems and other spheres of government influence as per the text of the convention.

A.97 Valletta Treaty, formerly the European Convention on the Protection of Archaeological Heritage (1992): agreed that the conservation and enhancement of an archaeological heritage is one of the goals of urban and

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regional planning policy. It is concerned in particular with the need for co-operation between archaeologists and planners to ensure optimum conservation of archaeological heritage.

National

A.98 Of relevance to the approach of the planning system to the historic environment the **NPPF** contains an environmental objective to contribute to the protection and enhancement of the built and historic environment. The document also sets out a strategy to seek “*the conservation and enjoyment of the historic environment, including heritage assets most at risk through neglect, decay and other threats.*” Such a strategy is required to take into consideration the desirability of sustaining and enhancing the significance of heritage assets and bringing them into viable use.

A.99 It should also be considerate of the wider benefits of conserving the historic environment, the contribution new development can make in terms of character and distinctiveness and the opportunity for the historic environment to contribute to this character and distinctiveness. Local authorities should also maintain or have access to a historic environment record which is to be supported by up to date evidence.

A.100 Ancient Monuments & Archaeological Areas Act 1979 [See reference 172] : a law passed by the UK government to protect the archaeological heritage of England & Wales and Scotland. Under this Act, the Secretary of State has a duty to compile and maintain a schedule of ancient monuments of national importance, in order to help preserve them. It also creates criminal offences for unauthorised works to, or damage of, these monuments.

A.101 Planning (Listed Buildings & Conservation Areas) Act 1990 [See reference 173] : An Act of Parliament that changed the laws for granting of planning permission for building works, with a particular focus on listed buildings and conservation areas.

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A.102 Historic Buildings and Ancient Monuments Act 1953 [See reference 174] : An Act of Parliament that makes provision for the compilation of a register of gardens and other land (parks and gardens, and battlefields).

A.103 The Government’s Statement on the Historic Environment for England [See reference 175] sets out the Government’s vision for the historic environment. It calls for those who have the power to shape the historic environment to recognise its value and to manage it in an intelligent manner in light of the contribution that it can make to social, economic and cultural life. It includes reference to promoting the role of the historic environment within the Government’s response to climate change and the wider sustainable development agenda.

A.104 The Heritage Statement [See reference 176] describes out how the Government will support the heritage sector and help it to protect and care for our heritage and historic environment, in order to maximise the economic and social impact of heritage and to ensure that everyone can enjoy and benefit from it.

A.105 Sustainability Appraisal and Strategic Environmental Assessment, Historic England Advice Note 8 [See reference 177] : Sets out Historic England’s guidance and expectations for the consideration and appraisal of effects on the historic environment as part of the Sustainability Appraisal/Strategic Environmental Assessment process.

Landscape

International

A.106 The European Landscape Convention (2002) : promotes landscape protection, management and planning. The Convention is aimed at the protection, management and planning of all landscapes and raising awareness of the value of a living landscape.

National

A.107 The South West Hertfordshire Joint Strategic Plan will be required to have consideration for the conservation and enhancement of landscape character in the District. The **NPPF** includes as part of its approach to protecting the natural environment, recognition for the intrinsic character and beauty of the countryside, and the wider benefits to be secured from natural capital. Importantly, great weight is to be given to conserving landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding Natural Beauty.

A.108 As part of the approach to achieving well-designed places the NPPF states that planning policies and decisions should ensure that developments “*are sympathetic to local character and history, including the surrounding built environment and landscape setting.*”

A.109 National Parks and Access to the Countryside Act 1949 [See reference 178] : An Act of Parliament to make provision for National Parks and the establishment of a National Parks Commission; to confer on the Nature Conservancy and local authorities powers for the establishment and maintenance of nature reserves; to make further provision for the recording, creation, maintenance and improvement of public paths and for securing access to open country.

A.110 Countryside and Rights of Way Act 2010 [See reference 179] : An Act of Parliament to make new provision for public access to the countryside.

A.111 England National Parks and the Broads: UK Government Vision and Circular 2010 [See reference 180]: provides updated policy guidance on the English National Parks and Broads. It also sets out a vision for 2030 and the key outcomes the Government is seeking over the next five years to ensure early progress towards the vision.

A.112 The key area in the **25 Year Environment Plan** of relevance in terms of the conservation and enhancement of landscape character is recovering nature

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and enhancing the beauty of landscapes. Actions that will be taken as part of this key area are as follows:

- Working with AONB authorities to deliver environmental enhancements.
- Identifying opportunities for environmental enhancement of all England's Natural Character Areas, and monitoring indicators of landscape character and quality.

References

- 1 The Planning and Compulsory Purchase Act 2004 was amended under the Environmental Assessments and Miscellaneous Planning (EU Exit) Regulations 2018.
- 2 The Environmental Assessment of Plans and Programmes Regulations 2004 (SI 2004/1633), as amended by The Environmental Assessments and Miscellaneous Planning (Amendment) (EU Exit) Regulations 2018 (SI 2018/1232).
- 3 Ministry of Housing, Communities and Local Government (last updated 31 December 2020) Planning Practice Guidance:
<https://www.gov.uk/guidance/strategic-environmental-assessment-and-sustainability-appraisal>.
- 4 The Conservation of Habitats and Species Regulations 2017 (SI 2017/1012), as amended by The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (SI 2019/579).
- 5 Footprint Ecology (2022) Visitor Survey, Recreation Impact Assessment and Mitigation Requirements for the Chilterns Beechwoods SAC and the Dacorum Local Plan https://www.dacorum.gov.uk/docs/default-source/strategic-planning/dacorum-recreation-evidence-base-200322.pdf?sfvrsn=fbe079e_0
- 6 Explanatory Memorandum to the Environmental Assessments and Miscellaneous Planning (Amendment) (EU Exit) Regulations 2018 No. 1232.
- 7 Ministry of Housing, Communities and Local Government (2021) National Planning Policy Framework.
- 8 Hertfordshire County Council (May 2018) Hertfordshire's Local Transport Plan 2018 – 2031. Available at: <https://www.hertfordshire.gov.uk/media-library/documents/about-the-council/consultations/ltp4-local-transport-plan-4-complete.pdf>
- 9 Hertfordshire County Council (2020) Hertfordshire's Rail Strategy <https://www.hertfordshire.gov.uk/media->

References

- library/documents/highways/transport-planning/local-transport-plan-live/rail-strategy.pdf
- 10** Hertfordshire County Council and AECOM (2019) South West Hertfordshire Growth and Transport Plan
<https://www.hertfordshire.gov.uk/media-library/documents/highways/sw-herts-gtp-prospectus.pdf>
 - 11** Hertfordshire County Council and AECOM (2020) South Central Hertfordshire Growth and Transport Plan
<https://www.knebworthparishcouncil.gov.uk/uploads/scgtp-interventions-101219.pdf>
 - 12** Hertfordshire County Council (2017-2021) Hertfordshire Public Health Service Strategy: <https://www.hertfordshire.gov.uk/media-library/documents/public-health/health/hertfordshire-ph-strategy-2017-21.pdf>
 - 13** Hertfordshire County Council (2016-2021) Hertfordshire Adult Mental Health Strategy: <https://www.hertfordshire.gov.uk/media-library/documents/about-the-council/data-and-information/adult-mental-health-strategy.pdf>
 - 14** Hertfordshire County Council (2013) Active Travel Strategy: <https://www.hertfordshire.gov.uk/media-library/documents/about-the-council/data-and-information/active-travel-strategy.pdf>
 - 15** Hertfordshire County Council (2020) Unlocking Hertfordshire, Hertfordshire's Recovery Plan, 2020: <https://www.hertfordshirelep.com/media/ix4hbcdw/hertfordshire-recovery-plan-august-2020.pdf>
 - 16** Hertfordshire County Council (2017) Perfectly Placed for Business: the refreshed Strategic Plan 2017 – 2030: <https://www.lepnetwork.net/media/2108/hertfordshire-lep-sep.pdf>
 - 17** Hertfordshire County Council (2015) Air Quality Strategy: <https://www.hertfordshire.gov.uk/media-library/documents/about-the-council/data-and-information/air-quality-strategy.pdf>

References

- 18** Hertfordshire County Council (2020) Sustainable Hertfordshire Strategy: <https://www.hertfordshire.gov.uk/Media-library/Documents/About-the-council/data-and-information/Sustainable-Hertfordshire-Strategy-2020.pdf>
- 19** Dacorum Borough Council (November 2020) Dacorum Local Plan (2020 – 2038) Emerging Strategy for Growth Interim SA Report. Available at: https://www.dacorum.gov.uk/docs/default-source/strategic-planning/dacorum-local-plan-interim-sustainability-appraisal-report-november-2020.pdf?sfvrsn=53bf0c9e_6
- 20** LUC (October 2021) SA of the Hertsmere Draft Local Plan. Available at: <https://www.hertsmere.gov.uk/Documents/09-Planning--Building-Control/Planning-Policy/Local-Plan/10017-Draft-Local-Plan-SA-Report-PDF-4.23-Mb.pdf>
- 21** St Albans City and District Council (January 2021) SA Scoping Report for the St Albans City and District Local Plan. Available at: <https://www.stalbans.gov.uk/sites/default/files/attachments/St%20Albans%20City%20and%20District%20Council%20-%20Sustainability%20Appraisal%20-%20Scoping%20Jan%202021.pdf>
- 22** TRL Limited (June 2021) Interim SA Report for the Preferred Policy Options and Sites for Potential Allocation. Available at: <https://www.threerivers.gov.uk/egcl-page/new-local-plan>
- 23** ClearLead Consulting Limited (January 2021) SA Report for the Watford Final Draft Local Plan. Available at: <https://www.watford.gov.uk/downloads/file/198/2-sustainability-appraisal-report>
- 24** United Nations Treaty Collection (2016) Paris Agreement
- 25** UK Climate Projections (July 2021) <https://www.metoffice.gov.uk/pub/data/weather/uk/ukcp18/science-reports/UKCP18-Key-results.xlsx>
- 26** Met Office (2012) Urban Heat Islands https://www.metoffice.gov.uk/binaries/content/assets/mohippo/pdf/8/m/mo_pup_insert_health.web.pdf

References

- 27** Environment Agency (2018) Climate Change Impacts and Adaptation https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/758983/Climate_change_impacts_and_adaptation.pdf
- 28** Department of Business, Energy & Industrial Strategy (August 2021) UK local authority and regional carbon dioxide emissions national statistics: 2005-2019 <https://www.gov.uk/government/statistics/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics-2005-to-2019>
- 29** The Green Alliance, Renewable Energy Locator <https://renewablelocator.green-alliance.org.uk/area/374>
- 30** Three Rivers District Council (2021) Annual Monitoring Report 2020-2021 <https://www.threerivers.gov.uk/egcl-page/annual-monitoring-report>
- 31** UK Electricity Production (2022) Potters Bar Solar Farm <https://electricityproduction.uk/plant/GBR0005660/>
- 32** Environment Agency (2018) Climate Change Impacts and Adaptation https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/758983/Climate_change_impacts_and_adaptation.pdf
- 33** Hertfordshire County Council (2019 - 2029) A Strategy for the Management of Local Sources of Flood Risk <https://www.hertfordshire.gov.uk/media-library/documents/environment-and-planning/water/flood-risk-management/lfrms-for-hertfordshire-full-report.pdf>
- 34** Office for National Statistics (2020) Population projections for local authorities: Table 2 <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/datasets/localauthoritiesinenglandtable2>
- 35** Public Health England (2019) Each District within SW Hertfordshire: Health Profile 2019
- 36** UK Chief Medical Officers (2019) UK Chief Medical Officers' Physical Activity Guidelines

References

- 37** Public Health England (2019) Each District within SW Hertfordshire: Health Profile 2019
- 38** Hertfordshire Strategic Green Infrastructure Plan (Incorporating the GreenArc area) 2011 [online] Available at:
<https://www.hertfordshire.gov.uk/media-library/documents/environment-and-planning/landscape/hertfordshire-strategic-gi-plan-2011.pdf>
- 39** South West Hertfordshire Local Housing Needs Assessment (2020)
<https://www.herts.gov.uk/Documents/09-Planning--Building-Control/Planning-Policy/Local-Plan/LHNA-Sept-2020-PDF-8.52Mb.pdf>
- 40** ONS (2020) Estimates of the population for the UK, England and Wales, Scotland and Northern Ireland [online] Available at:
<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/populationestimatesforukenglandandwalescotlandandnorthernireland>
- 41** ONS (2020) Estimates of the population for the UK, England and Wales, Scotland and Northern Ireland [online] Available at:
<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/populationestimatesforukenglandandwalescotlandandnorthernireland>
- 42** ONS (2020) Population of State Pension age and working age, and old age dependency ratios, for local authorities and regions in England [online] Available at:
<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/datasets/populationofstatepensionageandworkingageandoldagedependencyratiosforlocalauthoritiesandregionsinengland>
- 43** ONS (2015) Nearly one in five people had some form of disability in England and Wales [online] Available at:
<https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/disability/articles/nearlyoneinfivepeoplehadsomeformofdisabilityinenglandandwales/2015-07-13#:~:text=In%202011%2C%20nearly%201%20in,exists%20across%20England%20and%20Wales.>

References

- 44** ONS (2011) 2011 Census: Household Composition [online] Available at: https://www.ons.gov.uk/file?uri=/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/2011censuskeystatisticsforlocalauthoritiesinenglandandwales/r21ewrtableks105ewladv1_tcm77-290578.xls
- 45** ONS (2020) Parents Country of Birth [online] Available at: <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/livebirths/datasets/parentscountryofbirth>
- 46** ONS (2020) Births in England and Wales: 2020 [online] Available at: <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/livebirths/bulletins/birthsummarytablesenglandandwales/2020>
- 47** Herts Insight: Diversity Profile for Hertfordshire [online] Available at: <https://reports.instantatlas.com/view-report/f589797e29b14c50a0f7cfdad2c4420/E10000015?clear=true#>
- 48** ONS (2021) Local area migration indicators, UK [online] Available at:
- 49** ONS (2019) Religion by Local Authority, Great Britain, 2011 to 2018 [online] Available at: <https://www.ons.gov.uk/peoplepopulationandcommunity/culturalidentity/religion/adhoc/009830religionbylocalauthoritygreatbritain2011to2018>
- 50** Ministry of Housing, Communities & Local Government (2019) IoD2019 Interactive Dashboard – Local Authority Focus [online] Available at: <https://app.powerbi.com/view?r=eyJrIjoiOTdjYzlyNTMtMTcxNi00YmQ2LWl1YzgtMTUyYzIxOWQ3NzQ2liwidCI6ImJmMzQ2ODEwLTIjN2QtNDNkZS1hODcyLTI0YTJlZjM5OTVhOCJ9>
- 51** Indices of Deprivation: 2019 and 2015 [online] Available at: http://dclgapps.communities.gov.uk/imd/ioid_index.html#
- 52** Public Health England: Three Rivers Local Authority health Profile [online] Available at: <https://fingertips.phe.org.uk/static-reports/health-profiles/2019/E07000102.html?area-name=Three%20Rivers>
- 53** ONS (2021) Sub-regional fuel poverty data 2021 [online] Available at: <https://www.gov.uk/government/statistics/sub-regional-fuel-poverty-data-2021>

References

- 54** ONS (2017) Education statistics by LA district and pupil disadvantage [online] Available at:
<https://www.gov.uk/government/publications/education-statistics-by-la-district-and-pupil-disadvantage>
- 55** Hertfordshire Local Industrial Strategy (2019)
<https://www.hertfordshirelep.com/media/f4yfed3x/hertfordshire-lis-consultation-draft-2019.pdf>
- 56** Hertfordshire Local Enterprise Partnership (2017) Strategic Economic Plan (2017-2030) <https://www.hertfordshirelep.com/media/o4pj0kru/strategic-economic-plan-executive-summary-2017.pdf>
- 57** Hertfordshire Local Enterprise Partnership (undated) Clean Growth Strategy <https://www.hertfordshirelep.com/media/kytp2les/a-strategy-for-clean-growth-in-hertfordshire.pdf>
- 58** Hatch Regeneris (2019) South West Herts Economic Study Update (September 2019) <https://www.hertsmere.gov.uk/Documents/09-Planning--Building-Control/Planning-Policy/Local-Plan/South-West-Herts-Economic-Study-Final-Report-Final.pdf>
- 59** Department of Education (2017) Hertfordshire Area Review Final Report https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/635241/Hertfordshire_Area_Review_Report_FINAL.pdf
- 60** Hertfordshire County Council (2017) Perfectly Placed for Business: the refreshed Strategic Plan 2017 – 2030:
<https://www.lepnetwork.net/media/2108/hertfordshire-lep-sep.pdf>
- 61** ONS (2021) Earnings and Hours Worked:
<https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/datasets/placeofresidencebylocalauthorityashetable8>
- 62** South West Herts Economic Study Update (September 2019)
<https://www.hertsmere.gov.uk/Documents/09-Planning--Building-Control/Planning-Policy/Local-Plan/South-West-Herts-Economic-Study-Final-Report-Final.pdf>

References

- 63** Hertfordshire's Recovery Plan – Unlocking Hertfordshire (2020)
<https://www.hertfordshirelep.com/media/ix4hbcdw/hertfordshire-recovery-plan-august-2020.pdf>
- 64** Watford Borough Council (2021) Watford Economic Growth Strategy 2021-25 <https://www.watford.gov.uk/downloads/file/695/watford-economic-growth-strategy>
- 65** Dacorum Borough Council (2021) Dacorum Economic Recovery Plan <https://democracy.dacorum.gov.uk/documents/s30990/FINAL%20-%20DACORUM%20RECOVERY%20PLAN%20final.pdf>
- 66** Hertfordshire's Local Transport Plan (2018-2031)
<https://www.hertfordshire.gov.uk/media-library/documents/about-the-council/consultations/ltp4-local-transport-plan-4-complete.pdf>
- 67** Sustainability Appraisal of the Hertsmere Draft Local Plan, Appendices (October 2021) <https://www.hertsmere.gov.uk/Documents/09-Planning--Building-Control/Planning-Policy/Local-Plan/10017-Draft-Local-Plan-SA-Report-Appendices-PDF-6.39-Mb.pdf>
- 68** Hertfordshire's Local Transport Plan (2018-2031)
<https://www.hertfordshire.gov.uk/media-library/documents/about-the-council/consultations/ltp4-local-transport-plan-4-complete.pdf>
- 69** Hertfordshire Local Enterprise Partnership (2017) Strategic Economic Plan (2017-2030) <https://www.hertfordshirelep.com/media/o4pj0kru/strategic-economic-plan-executive-summary-2017.pdf>
- 70** Hatch Regeneris (2019) South West Herts Economic Study Update (September 2019) <https://www.hertsmere.gov.uk/Documents/09-Planning--Building-Control/Planning-Policy/Local-Plan/South-West-Herts-Economic-Study-Final-Report-Final.pdf>
- 71** Local Development Plan: Infrastructure Assessment (2013)
<https://www.hertsmere.gov.uk/Documents/09-Planning--BuildingControl/Planning-Policy/Planning-Publications/CD12-HertsmerelInfrastructure-Assessment.pdf>
- 72** Three Rivers District, Local Plan Regulation 18, Interim Sustainability Appraisal Report Appendices (June 2021)

References

- file:///C:/Users/Miller%20B/Downloads/three-rivers-local-plan-regulation-18-interim-sa-report-appendices-june-2021%20(2).pdf
- 73** Watford Final Draft Local Plan, Sustainability Appraisal Report, Appendix B: Baseline Data (January 2021)
<https://www.watford.gov.uk/downloads/file/200/4-sustainability-appraisal-report-appendix-b-baseline-data>
- 74** Sustainability Appraisal of the Hertsmere Draft Local Plan, Appendices (October 2021) <https://www.hertsmere.gov.uk/Documents/09-Planning--Building-Control/Planning-Policy/Local-Plan/10017-Draft-Local-Plan-SA-Report-Appendices-PDF-6.39-Mb.pdf>
- 75** Ibid
- 76** Three Rivers District, Local Plan Regulation 18, Interim Sustainability Appraisal Report Appendices (June 2021)
file:///C:/Users/Miller%20B/Downloads/three-rivers-local-plan-regulation-18-interim-sa-report-appendices-june-2021%20(2).pdf
- 77** Dacorum Local Plan (2020-2038) Emerging Strategy for Growth Interim Sustainability Appraisal Report Appendices (November 2020)
https://www.dacorum.gov.uk/docs/default-source/strategic-planning/dacorum-local-plan-interim-sustainability-appraisal-report-appendices---november-2020.pdf?sfvrsn=6abe0c9e_4
- 78** Three Rivers District, Local Plan Regulation 18, Interim Sustainability Appraisal Report Appendices (June 2021)
file:///C:/Users/Miller%20B/Downloads/three-rivers-local-plan-regulation-18-interim-sa-report-appendices-june-2021%20(2).pdf
- 79** Hertsmere Borough Council (2022) Cycle Hire Scheme coming to Borehamwood <https://www.hertsmere.gov.uk/News/Articles/February-2022/Cycle-hire-scheme-coming-to-Borehamwood.aspx>
- 80** Watford Borough Council (2021) Transforming Travel in Watford@ the strategy for 2021-2041
https://www.futuretravelwatford.com/_files/ugd/b57e7b_3c4db73a8c8f46688555235c7dbfd28a.pdf
- 81** Ibid

References

- 82** St Albans City and District Local Plan 2020 to 2038 Sustainability Appraisal Scoping Report, Consultation Draft (January 2021)
<https://www.stalbans.gov.uk/sites/default/files/attachments/St%20Albans%20City%20and%20District%20Council%20-%20Sustainability%20Appraisal%20-%20Scoping%20Jan%202021.pdf>
- 83** Watford Final Draft Local Plan, Sustainability Appraisal Report, Appendix B: Baseline Data (January 2021)
<https://www.watford.gov.uk/downloads/file/200/4-sustainability-appraisal-report-appendix-b-baseline-data>
- 84** Dacorum Local Plan (2020-2038) Emerging Strategy for Growth Interim Sustainability Appraisal Report Appendices (November 2020)
https://www.dacorum.gov.uk/docs/default-source/strategic-planning/dacorum-local-plan-interim-sustainability-appraisal-report-appendices---november-2020.pdf?sfvrsn=6abe0c9e_4
- 85** Noise Facts <https://www.hertfordshire.gov.uk/microsites/building-futures/a-sustainable-design-toolkit/technical-modules/noise/noise-facts.aspx>
- 86** Ibid
- 87** Ibid
- 88** Three Rivers District, Local Plan Regulation 18, Interim Sustainability Appraisal Report Appendices (June 2021)
[file:///C:/Users/Miller%20B/Downloads/three-rivers-local-plan-regulation-18-interim-sa-report-appendices-june-2021%20\(2\).pdf](file:///C:/Users/Miller%20B/Downloads/three-rivers-local-plan-regulation-18-interim-sa-report-appendices-june-2021%20(2).pdf)
- 89** Hertfordshire County Council (2021) Local Aggregates Assessment 2021
<https://www.hertfordshire.gov.uk/media-library/documents/environment-and-planning/planning/planning-in-hertfordshire/final-laa-2021-002.pdf>
- 90** Hertfordshire Waste Partnership (2019) Annual Report 2018/19
<https://www.hertfordshire.gov.uk/media-library/documents/environment-and-planning/waste-and-recycling/hwp-annual-report-2018-19.pdf>
- 91** Hertfordshire Water Summit, 14 March 2013.
- 92** Hertfordshire Water Study 2017, Infrastructure & Resources, Sub-catchment Solutions (2021-2051) (March 2017)

References

- <https://www.hertsmere.gov.uk/Documents/09-Planning--Building-Control/Planning-Policy/Local-Plan/Hertfordshire-Water-Study-2017-.pdf>
- 93** Ofwat, 2019 Price Review (2019) <https://www.ofwat.gov.uk/regulated-companies/price-review/2019-price-review/>
- 94** Arcadis (2017) Hertfordshire Water Study 2017
<https://www.hertsmere.gov.uk/Documents/09-Planning--Building-Control/Planning-Policy/Local-Plan/Hertfordshire-Water-Study-2017-.pdf>
- 95** Essex Rivers Hub (undated) River Colne
<http://essexrivershub.org.uk/index.php/pressures/river-colne-pressures>
- 96** Chilterns AONB (undated) Chalk Streams Project
<https://www.chilternsaonb.org/projects/chalk-streams-project.html>
- 97** Hertfordshire County Council (2021) Local Aggregates Assessment
<https://www.hertfordshire.gov.uk/media-library/documents/environment-and-planning/planning/planning-in-hertfordshire/final-laa-2021-002.pdf>
- 98** Hertfordshire County Council (2020) Proposed Submission Hertfordshire Minerals Local Plan Available at: <https://www.hertfordshire.gov.uk/media-library/documents/about-the-council/consultations/environment/a-minerals-local-plan-proposed-submission-document.pdf>
- 99** The Wildlife Trusts Herts and Middlesex (2020) Hertfordshire's State of Nature [online] Available at:
https://www.hertswildlifetrust.org.uk/sites/default/files/2020-03/Hertfordshire%27s%20State%20of%20Nature%20Report%202020_0.pdf
- 100** Ibid
- 101** A Local Biodiversity Action Plan (reviewed March 2006)
http://www.hef.org.uk/nature/biodiversity_vision/
- 102** Hertfordshire Strategic Green Infrastructure Plan (Incorporating the GreenArc area) 2011 [online] Available at:
<https://www.hertfordshire.gov.uk/media-library/documents/environment-and-planning/landscape/hertfordshire-strategic-gi-plan-2011.pdf>

References

- 103** Historic England (2021) Heritage at Risk, East of England
<https://historicengland.org.uk/images-books/publications/har-2021-registers/ee-har-register2021/>
- 104** Hertfordshire Gardens Trust (2021) Hertfordshire Gardens Trust
<https://hertsgardenstrust.org.uk/>
- 105** Hertfordshire County Council (date unavailable) Building Futures website [online] available at: <https://www.hertfordshire.gov.uk/microsites/building-futures/a-sustainable-design-toolkit/technical-modules/design/understanding-hertfordshires-character.aspx>
- 106** Chilterns Conservation Board (2019) Chilterns Area of Outstanding Natural Beauty Management Plan (2019-2024) [online] Available at: https://www.chilternsaonb.org/uploads/files/ConservationBoard/ManagementPlan/Chilterns_Management_Plan_2019-2024_Full.pdf
- 107** Ibid
- 108** The Wildlife Trusts Herts and Middlesex (2020) Hertfordshire's State of Nature [online] Available at: https://www.hertswildlifetrust.org.uk/sites/default/files/2020-03/Hertfordshire%27s%20State%20of%20Nature%20Report%202020_0.pdf
- 109** Ministry of Housing, Communities and Local Government (July 2018): Housing Delivery Test Measurement Rule Book: <https://www.gov.uk/government/publications/housing-delivery-test-measurement-rule-book>
- 110** Ministry of Housing, Communities and Local Government (January 2021) National Design Guide: <https://www.gov.uk/government/publications/national-design-guide>
- 111** The Marmot Review (2011) Fair Society, Healthy Lives: <https://www.local.gov.uk/marmot-review-report-fair-society-healthy-lives>
- 112** Select Committee on Public Service and Demographic Change (2013) Ready for Ageing? [online] Available at: <https://publications.parliament.uk/pa/ld201213/ldselect/ldpublic/140/140.pdf>

References

- 113** HM Government (2011) Laying the Foundations: A Housing Strategy for England:
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/7532/2033676.pdf
- 114** Homes England (2018) Strategic Plan 2018 to 2023:
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/7532/2033676.pdf
- 115** Department for Communities and Local Government (2015) Planning policy for traveller sites:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/457420/Final_planning_and_travellers_policy.pdf
- 116** Department for Housing, Communities and Local Government (2020):
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/907647/MHCLG-Planning-Consultation.pdf
- 117** Department for Communities and Local Government (2017) Fixing our broken housing market:
<https://www.gov.uk/government/publications/fixing-our-broken-housing-market>
- 118** Public Health England (2019) PHE Strategy 2020-25:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/831562/PHE_Strategy_2020-25.pdf
- 119** HM Government (2010) Healthy Lives, Healthy People: Our strategy for public health in England:
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/216096/dh_127424.pdf
- 120** Department for Business, Innovation and Skills (2010) Local Growth: Realising Every Place's Potential:
<https://www.gov.uk/government/publications/local-growth-realising-every-places-potential-hc-7961>
- 121** HM Treasury (2021) Build Back Better: Our Plan for Growth:
<https://www.gov.uk/government/publications/build-back-better-our-plan-for-growth/build-back-better-our-plan-for-growth-html>

References

- 122** HM Government (2020) The Ten Point Plan for a Green Industrial Revolution
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/936567/10_POINT_PLAN_BOOKLET.pdf
- 123** HM Government (2020) Agriculture Act 2020:
<https://www.legislation.gov.uk/ukpga/2020/21/contents/enacted/data.htm>
- 124** Department for Environment, Food and Rural Affairs (2020) An Agricultural Transition Plan 2021-2024:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/954283/agricultural-transition-plan.pdf
- 125** HM Treasury (2016) National Infrastructure Delivery Plan (2016-2021):
<https://www.gov.uk/government/publications/national-infrastructure-delivery-plan-2016-to-2021>
- 126** Department for Business, Energy and Industrial Strategy (2017):
<https://www.gov.uk/government/publications/industrial-strategy-building-a-britain-fit-for-the-future>
- 127** HM Government (2018) The Road to Zero:
<https://www.gov.uk/government/publications/reducing-emissions-from-road-transport-road-to-zero-strategy>
- 128** Department for Transport (2017) Transport Investment Strategy:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/918490/Transport_investment_strategy.pdf
- 129** Department for Transport (2013) Door to Door: A strategy for improving sustainable transport integration:
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/142539/door-to-door-strategy.pdf
- 130** Department for Transport (2020) Decarbonising Transport Setting the Challenge [online] Available at:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/932122/decarbonising-transport-setting-the-challenge.pdf

References

- 131** These have not been summarised, since the upcoming TDP will supersede them to some extent: the Road to Zero strategy, Maritime 2050 and the Clean Maritime Plan, the Aviation 2050 Green Paper and forthcoming net zero aviation consultation and Aviation Strategy, the Cycling and Walking Investment Strategy, Future of Mobility: Urban Strategy, the 2018 amendments to the Renewable Transport Fuel Obligation, Freight Carbon Review, the Rail Industry Decarbonisation Taskforce and the Carbon Offsetting for Transport Call for Evidence.
- 132** Department for Transport (2021) Decarbonising Transport, A Better, Greener Britain:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1009448/decarbonising-transport-a-better-greener-britain.pdf
- 133** HM Government (1990) Environmental Protection Act 1990:
<https://www.legislation.gov.uk/ukpga/1990/43/contents>
- 134** HM Government (2010) Building Regulations:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/431943/BR_PDF_AD_C_2013.pdf
- 135** Department for Communities and Local Government (2014) National Planning Policy for Waste:
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/364759/141015_National_Planning_Policy_for_Waste.pdf
- 136** HM Government (2016) The Nitrate Pollution Prevention Regulations:
<https://www.legislation.gov.uk/en/uksi/2016/1190/made>
- 137** HM Government (2003) The Urban Waste Water Treatment Regulations:
<https://www.legislation.gov.uk/uksi/2003/1788>
- 138** HM Government (2017) The Water Environment (Water Framework Directive) (England and Wales) Regulations:
<https://www.legislation.gov.uk/uksi/2017/407/contents/made>
- 139** HM Government (2016) The Water Supply (Water Quality) Regulations:
<https://www.legislation.gov.uk/wsi/2018/647/contents/made>

References

- 140** HM Government (2016) The Environmental Permitting Regulations:
<https://www.legislation.gov.uk/ukxi/2016/1154/contents/made>
- 141** HM Government (2016) The Air Quality Standards Regulations: ?
- 142** HM Government (2018) The Environmental Noise (England) Regulations:
<https://www.legislation.gov.uk/ukxi/2018/1089/made>
- 143** HM Government (2020) The Waste (Circular Economy) Regulations:
<https://www.legislation.gov.uk/ukxi/2020/904/made>
- 144** Department for Environment, Food and Rural Affairs (2009) Safeguarding our Soils: A Strategy for England:
<https://www.gov.uk/government/publications/safeguarding-our-soils-a-strategy-for-england>
- 145** Department for Environment, Food and Rural Affairs (2012) The Water White Paper:
<https://publications.parliament.uk/pa/cm201213/cmselect/cmenvfru/374/374.pdf>
- 146** HM Government (2012) National Policy Statement for Waste Water:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69505/pb13709-waste-water-nps.pdf
- 147** HM Government (2008) Future Water: The Government's water strategy for England [online] Available at:
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69346/pb13562-future-water-080204.pdf
- 148** Department for Environment Food and Rural Affairs (2007) The Air Quality Strategy for England, Scotland, Wales and Northern Ireland:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69336/pb12654-air-quality-strategy-vol1-070712.pdf
- 149** HM Government (2018) The Road to Zero:
<https://www.gov.uk/government/publications/reducing-emissions-from-road-transport-road-to-zero-strategy>
- 150** Department for Environment Food and Rural Affairs and Department for Transport (2017) UK plan for tackling roadside nitrogen dioxide

References

- concentrations:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/633270/air-quality-plan-detail.pdf
- 151** Department for Environment, Food & Rural Affairs and Environment Agency (2018) Resources and waste strategy for England:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/765914/resources-waste-strategy-dec-2018.pdf
- 152** DEFRA, Clean Air Strategy 2019:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/770715/clean-air-strategy-2019.pdf
- 153** HM Government (2008) Climate Change Act 2008:
<https://www.legislation.gov.uk/ukpga/2008/27/contents>
- 154** HM Government (2008) Planning and Energy Act 2008:
<https://www.legislation.gov.uk/ukpga/2008/21/contents>
- 155** HM Government (2021) The Energy Performance of Buildings Regulations:
<https://www.legislation.gov.uk/uksi/2012/3118/contents/made>
- 156** HM Government (2009) The UK Renewable Energy Strategy:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/228866/7686.pdf
- 157** Department of Energy & Climate Change (2012) The Energy Efficiency Strategy: The Energy Efficiency Opportunity in the UK:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/65602/6927-energy-efficiency-strategy--the-energy-efficiency.pdf
- 158** HM Government (2009) The UK Low Carbon Transition Plan [online]:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/228752/9780108508394.pdf
- 159** HM Government (2017) UK Climate Change Risk Assessment 2017 [online]:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/584281/uk-climate-change-risk-assess-2017.pdf

References

- 160** Climate Change Committee (2021) Independent Assessment of UK Climate Risk <https://www.theccc.org.uk/wp-content/uploads/2021/07/Independent-Assessment-of-UK-Climate-Risk-Advice-to-Govt-for-CCRA3-CCC.pdf>
- 161** HM Government (2018) The National Adaptation Programme and the Third Strategy for Climate Adaptation Reporting: Making the country resilient to a changing climate: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/727252/national-adaptation-programme-2018.pdf
- 162** HM Government (2010) Flood and Water Management Act: <https://www.legislation.gov.uk/ukpga/2010/29/contents>
- 163** HM Government (2019) The Flood and Water Regulations: <https://www.legislation.gov.uk/wsi/2019/460/contents/made#:~:text=The%20Flood%20and%20Water%20%28Amendments%29%20%28England%20and%20Wales%29,Coastal%20Erosion%20%28Wales%29%20Order%202011%20More%20items...%20>
- 164** HM Government (2011) Understanding the risks, empowering communities, building resilience: The national flood and coastal erosion risk management strategy for England: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/228898/9780108510366.pdf
- 165** HM Government (2020) The Ten Point Plan for a Green Industrial Revolution https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/936567/10_POINT_PLAN_BOOKLET.pdf
- 166** HM Government (2021) The Environment Act 2021: <https://www.legislation.gov.uk/ukpga/2021/30/contents/enacted>
- 167** HM Government (2019) The Conservation of Habitats and Species Regulations: <https://www.legislation.gov.uk/ukdsi/2019/9780111176573>
- 168** HM Government (2006) Natural Environment and Rural Communities Act 2006: <https://www.legislation.gov.uk/ukpga/2006/16/contents>

References

- 169** Department for Environment, Food and Rural Affairs (2008) The England Biodiversity Strategy Climate Change Adaptation Principles:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69270/pb13168-ebs-ccap-081203.pdf
- 170** Department for Environment, Food and Rural Affairs (2011) Biodiversity 2020: A strategy for England's wildlife and ecosystem services:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69446/pb13583-biodiversity-strategy-2020-111111.pdf
- 171** Department for Environment, Food and Rural Affairs (2013) Biodiversity offsetting in England Green Paper:
https://consult.defra.gov.uk/biodiversity/biodiversity_offsetting/supporting_documents/20130903Biodiversity%20offsetting%20green%20paper.pdf
- 172** HM Government (1979) Ancient Monuments & Archaeological Areas Act:
<https://consult.environment-agency.gov.uk/engagement/bostonbarriertwao/results/b.21---ancient-monuments-and-archaeological-areas-act-1979.pdf>.
- 173** HM Government (2002) Planning (Listed Buildings & Conservation Areas) Act (1990):
http://www.legislation.gov.uk/ukpga/1990/9/pdfs/ukpga_19900009_en.pdf.
- 174** HM Government (1953) Historic Buildings and Ancient Monuments Act 1953 [online] Available at: <https://www.legislation.gov.uk/ukpga/Eliz2/1-2/49/contents>
- 175** HM Government (2010) The Government's Statement on the Historic Environment for England 2010:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/229834/Acc_HeritageVision_Part1.pdf
- 176** Department for Digital, Culture Media and Sport (2017) Heritage Statement 2017:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/664657/Heritage_Statement_2017___final_-_web_version_.pdf

References

- 177** Historic England (2016) Sustainability Appraisal and Strategic Environmental Assessment: Historic England Advice Note 8: <https://content.historicengland.org.uk/images-books/publications/sustainability-appraisal-and-strategic-environmental-assessment-advice-note-8/heag036-sustainability-appraisal-strategic-environmental-assessment.pdf/>
- 178** HM Government (1949) National Parks and Access to the Countryside Act 1949: <https://www.legislation.gov.uk/ukpga/Geo6/12-13-14/97>
- 179** HM Government (2010) Countryside and Rights of Way Act 2010: <https://www.legislation.gov.uk/ukpga/2000/37/section/85>
- 180** Department for Environment, Food and Rural Affairs (2010) English National Parks and the Broads UK Government Vision and Circular 2010: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/221086/pb13387-vision-circular2010.pdf

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